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Haiti Market Analysis: Sud and Grand'Anse Departments

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Executive Summary

This study provides an overview of the general livelihood, market, and food assistance context in the Grand'Anse and Sud departments of Haiti, with the objective of offering insights and evidence to inform the planning of resilience food security activities in these locations. The analysis is informed by a review of previous literature on the topics of interest and an analysis of secondary data, complemented with primary data collected through surveys with diverse actors in Grand'Anse. Data were not collected in Sud.

The following sections provide an overview of the current situation in the departments of interest. Table I presents a summary of the key findings.

General context

The Grand'Anse and Sud departments host 11.3 percent of the total population, or about 1.27 million persons. The 2019 Human Development Report ranked Haiti number 169 out of 189 countries, making it one of the lowest-ranked countries in human development. While progress has been made in the country in terms of improvements in life expectancy and educational achievement, other indicators of development have remained stagnant. Development efforts in Haiti were severely disrupted by the devastating 2010 earthquake and a series of environmental, economic, and political shocks. In recent years sustainable social protection has become a priority for the Government of Haiti and international stakeholders to build resilience to these frequent shocks and stressors. COVID-19 will pose additional challenges to the general development in Haiti in the years to come, particularly as a result of reductions in remittances from the Haitian diaspora.

By 2019 Haiti had a total population estimated at 11.26 million, a considerable number of whom were living in poverty. The prevalence of food insecurity is high, with 78 percent of the population in Grand'Anse and 46 percent in Sud departments classified as food insecure. Agriculture is the main economic activity in both departments, with crop and animal sales being important sources of income; however, households also engage in other income-generating activities, such as fishing, petty trade, charcoal collection, and providing labor to others. Staple crops such as maize, rice, beans and peas, and a variety of roots and tubers are produced in these departments at varying degrees.

Infrastructure

In terms of infrastructure, roads are poorly developed and maintained. This creates significant financial challenges to engage in lucrative agriculture value-chains, especially given Haiti's highly mountainous terrain. The connectivity of the southern departments with the rest of the country relies on few main roads of variable quality. Intra-department connectivity remains a challenge, with mainly dirt roads contributing to long travel times. Storage facilities are generally only available near the Port-au-Prince port, as the majority of imports arrive through this entry point. Storage in the area studied in this report has been available in the framework of humanitarian activities in Les Cayes (Sud) and Jérémie (Grand'Anse). Access to electricity and fuel is a generalized challenge. Less than half the total population has electricity and rolling blackouts impact all Haitians. Access to electricity is particularly limited in rural areas.

Mobile phone ownership is more common in Sud (77 percent of persons between 15 and 49 years of age) than in Grand'Anse (67 percent). Internet coverage remains limited and expensive. Telecommunications services are provided by two main operators: Digicel and NATCOM. In 2017, less than 16 percent of persons aged 15 to 49 in each department had a bank account.

Market context

Haiti's staple foods include rice, wheat flour, maize, sorghum, pulses, plantain, tubers, and edible oil. This diet composition is representative of the consumption of the low-income populations, but does not constitute a nutritionally balanced diet. About 90 percent of households in both departments access their food through market purchases. The prices of staples have increased in the past years, with more marked increases in 2019 and 2020. Price trends in the Jérémie (Grand'Anse) and Cayes (Sud) markets generally reflect patterns observed in other markets in the country; however, Jérémie exhibits higher prices and more variability. Prices of locally produced commodities display seasonal variations. The markets analyzed are generally integrated to other reference markets in the country.

Food assistance modalities: Considerations and recommendations

As part of broader social safety net programs, the Government of Haiti collaborates with donors to ensure that the poor can meet their basic food security and nutrition needs. However, Haiti still relies heavily on the support of donors and partners for the provision of food assistance. Efforts are ongoing to link response to existing social safety net programming, but there are several challenges to be addressed in order to develop a shock responsive social protection system, including vulnerability targeting, data management and lack of an efficient payment system.

World Food Program (WFP) is one of the main implementers of food assistance in the country. According to the Food Security Cluster based at the World Food Program, ten organizations carrying out food security programs/operations in Grand'Anse and Sud. Additionally, a range of food security programs are underway with longer-term recovery or development objectives. Over the past 10 years, frequent climatic events affecting Haiti, in particular droughts and hurricanes, have directly impacted both departments, resulting in a number of humanitarian operations. Response to Hurricane Matthew in 2016 was a major turning point for food assistance strategy in Haiti. Since then, emergency and non-emergency food assistance in the country has shifted heavily towards more cash-based interventions and consideration of approaches that adapt to the market context. Actors are also taking a more holistic approach to food assistance that is nutrition sensitive and linked to resilience. The COVID-19 pandemic has generated further interest in scaling-up cash. However, implementers often rely on mixed, sequenced and layered modalities to navigate the complex Haitian context. A key consideration for the feasibility of different food modalities in the South is physical accessibility in rural areas.

This analysis concludes that organizations implementing food assistance activities across Haiti and in the two departments addressed in this report should consider the following considerations and recommendations. Documented lessons from recent events, such as Hurricane Matthew, are useful for emergency food assistance, but can also be applied across both emergency and development spheres.

- **Appropriateness and feasibility:** Emergency assessments indicate that markets bounce back relatively quickly following rapid onset crises in Haiti. Market-based responses that restore and support market functionality are found to be feasible. While the composition of supply may

change depending on the nature and timing of climatic crises (i.e. drought, hurricane), markets are able to source staples (imported) in a relatively short time. Following large-scale emergencies, food distributions may be required for an initial few weeks at a minimum, particularly in remote areas. This has potential to be phased out to cash-based transfers as soon as food service providers (FSPs) can be contracted and agencies are organizationally ready, but this takes time. Key actors recommend any remaining food distributions as soon as possible shift to locally or regionally procured products. Cash would only be possible at a larger scale to that seen, and more rapidly, if further investment with the private sector and pre-agreed FSP contracts are established, in addition to agency preparedness.

- **In-kind assistance (including local and regional procurement):** Households prefer consuming locally produced staples over imported foods due to their taste, perceived nutritional value, and cooking properties. Storage and transport remain a challenge in these departments due to the state of the roads. Limitations to transit coexist with high transport costs and insecurity along the transport routes. A number of activities relying on in-kind assistance using locally procured foods have been documented.

Pre-positioning and standby contracts are essential for timely food distributions immediately after disasters. Increased community engagement is key for improving food convoy and distribution security. Transparent coordination between agencies managing pipelines brings opportunities to augment and diversify transport and access points, given issues in the region. Logistics pre-disaster arrangements between Government and private actors are also an option. In-kind food aid is generally recommended when options that support local markets are not possible.

- **Cash and voucher programs:** The country experiences a challenging macroeconomic context characterized by currency fluctuations and increasing inflation. In addition, fees charged by operating agents in monetary transactions impact the transfers received by beneficiaries. Assessments carried out in the framework of different emergency initiatives indicate that markets bounce back relatively quickly following sudden onset crises. While the composition of the supply may change depending on the nature and timing of climatic crises (i.e. drought, hurricane) given their impact on local production, markets are able to source staples (imported) in a relatively short time. For cash based transfers, unconditional cash is found to be more effective and preferable than vouchers, but positive impacts on market actors for both are found and a mixed approach is provided by some actors.

Cash based interventions should consider currency and inflation dynamics when establishing transfer values and frequency of distributions, which are critical in the volatile and changing macroeconomic context. Transfer values should be set based on local prices and prices regular monitored as part of programs to ensure transfer values guarantee stable purchasing power. Immediately following large disasters, complementary market-based support may be helpful for smaller market chain actors, alongside household assistance.

Use of delivery mechanisms and financial service providers

- Delivery mechanisms:** Delivery providers used by agencies for cash transfers in Haiti include microfinance institutes, credit unions (*caisses populaires*), remittance agencies, and in some cases mobile money. Given the low bank account penetration, limited bank networks, and weak capacity of FSPs in rural areas, as well as other infrastructure challenges (electricity, mobile connectivity), cash transfers such as “cash in envelope” are still used in several areas, despite security challenges. However, positive experiences partnering with remittances agencies has brought opportunities for cash delivery, given the high penetration of the agencies across the country and provision of a service that is culturally familiar. The lack of a national identification card has been a challenge for many Haitians to access financial services, but the introduction of the compulsory unique national identification card (CINU) has improved this situation.
- Mobile Money:** Mobile financial applications have expanded considerably in recent years, supported by increased mobile phone ownership in Haiti. Mobile money is contributing to increased financial inclusion. Experiences using mobile money for emergency and development assistance exist both in government and non-government programs, although has been more limited by humanitarian actors. In response to COVID-19, the Government of Haiti provided assistance to over 22,000

beneficiaries through mobile payments. Network coverage and access to electricity are among the main challenges users/beneficiaries face for accessing mobile applications in a reliable and timely manner and will continue to hamper scale-up of mobile based cash interventions. Network coverage and access to electricity are among the main challenges users/beneficiaries face for accessing mobile applications in a reliable and timely manner, and will continue to hamper scale-up of mobile based cash interventions.

Table I. Summary of key findings.

Aspect	Grand’Anse	Sud	Chapter
Total population (rounded estimate)	469,000 (4.2%)	800,000 (7.1%)	2
Poverty (% of population in bottom two quintiles for asset distribution)	70%	50%	2
Food insecurity (%)	77%	46%	2
Estimated population in need (% in phase 3 and above IPC)	45%	32%	2, 4
Population receiving assistance	84,087 (or 84% of those targeted to receive assistance)	40,065 (or 59% of those targeted to receive assistance)	2, 4
Livelihood zones	HT07, HT08	HT01, HT07, HT08	2
Main sources of income (across livelihood zones)	Agricultural and livestock activities, casual labor, petty trade, fishing	Agricultural and livestock activities, casual labor, petty trade, fishing	2

Aspect	Grand'Anse	Sud	Chapter
Migration (% of total)	Less than 10%	About 20%	2
Mobile phone ownership (persons ages 15 – 49)	66%	77%	2
State of infrastructure	<ul style="list-style-type: none"> Poorly maintained and unpaved roads constrain access, particularly toward more remote locations. Low bank penetration (less than 15% of adults in both departments have an account) and limited availability of ATMs, particularly in rural and remote areas. Limited internet coverage and use. 		2
Household dependence on markets for accessing food	59% HT07 Grand'Anse 79% HT08 Grand'Anse	94% HT01 Sud 89% HT07 Sud 95% HT08 Sud	2
Preferred staples (across livelihood zones)	Maize, peas, rice, banana/plantain, pearl millet, roots and tubers	Rice, maize, beans, pearl millet, wheat and maize flour	2, 3
Usual sufficiency status of rice (department level)	Deficit	Deficit	3
Usual sufficiency status of maize (department level)	Surplus	Surplus	3
Usual sufficiency status of beans (department level)	Surplus	Surplus	3
Number of days with consumption of vegetables (in a 7-day recall period)	Between 2 and 4 days	Fewer than 2 days	3
Intake of nutritional supplements in children under 24 months of age	1.3%	3.6%	3
Constraints to access markets	High food prices, limited income		3
Market structure and dynamics	<ul style="list-style-type: none"> Large number of actors, competitive markets. Traders react to market signals particularly for locally produced foods. Few large importers exert influence in the supply chains of the imported products. In times of crises, markets have shown to bounce back shortly after a crisis (though often with limited functionality) and to be able to supply food. 		3, 4, 5

Aspect	Grand'Anse	Sud	Chapter
Challenges to trade	<ul style="list-style-type: none"> • Lack of transport • High cost of transport • Insecurity and political unrest • Lack of adequate and sufficient storage • High levels of inflation and exchange rate fluctuations • Limited access to finance by traders 		3
Price trends in the past years	<ul style="list-style-type: none"> • Increasing across commodities, particularly since 2019 • Prices highly influenced by the exchange rate dynamics • The annual average prices for the commodities analyzed tend to be higher in Sud (Cayes) than in Grand'Anse (Jérémie) 		3
Price seasonality	<ul style="list-style-type: none"> • Locally produced staples (maize, beans) display seasonal patterns, with above average prices between February and June. • Prices for imported and/or processed products does not show seasonal variations. 		3
Market integration	Prices in the markets analyzed co-move with prices in other markets in the country		3

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Frequently Used Acronyms

BRH	Bank of the Republic of Haiti
CNSA	<i>Coordination Nationale de la Sécurité Alimentaire</i>
CRS	Catholic Relief Services
FAO	Food and Agriculture Organization of the United Nations
FEWS NET	Famine Early Warning Systems Network
FFP	Food for Peace
GDP	Gross domestic product
IPC	Integrated Food Security Phase Classification
HTG	Haitian gourde
lb.	Pound
LRP	Local and Regional Procurement Program
MARNDR	<i>Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural</i>
MAST	<i>Ministère d'Affaires Sociales et du Travail</i>
mm	Millimeters
MT	Metric tons
NGO	Non-governmental organization
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
SIMAST	Système d'Information du Ministère des Affaires Sociales et du Travail
USAID	United States Agency for International Development
USD	U.S. dollar
WFP	World Food Program

I. Introduction

In the Human Development Index compiled by the United Nations as part of its comprehensive study of well-being in countries around the world,¹ Haiti ranks 169 out of 185 countries in life expectancy, education, and income per capita. While the historically challenged nation has made some advances in recent years—mainly due to improvements in life expectancy and educational achievement—it has not progressed at the same pace in other key aspects of development. With its economy still suffering the effects of the devastating earthquake of 2010 and a series of subsequent natural and man-made shocks, the level of inequality in Haiti has become untenable. More than half of the total population is chronically food insecure, and 22 percent of children are chronically malnourished.² Rebalancing the role of the state, markets, and civil society is necessary to achieve accountability and inclusiveness. While structural reforms are needed to address the root causes of inequality, short-term, interim, and urgent actions are essential to assist the most vulnerable.

Over the past year, the food security situation in Haiti has deteriorated so significantly that the country faces its greatest humanitarian crisis since the catastrophic 2010 earthquake. In August 2020, four million Haitians faced food insecurity, with nine percent of the population (one million people) in Integrated Food Security Phase Classification (IPC) Phase 4 (Emergency) and 32 percent (3.1 million people) in IPC Phase 3 (Crisis). This is attributed primarily to issues of food access, in turn caused by rising staple prices, depreciation of the Haitian gourde (HTG) relative to the dollar, political crises, and an ever-deteriorating security situation.³ The statistics are stark. Nearly 60 percent of the population lives below the poverty line, 320,000 children were out of school prior to the COVID-19 pandemic, and more than 25 percent of the population lacks access to clean water. Amid that raft of problems, the gap between humanitarian requirements in Haiti and funds to address them are among the most significant in the world. The Food Security Cluster estimates that given the number of persons in need, Haitians would need \$249.2 million in food security assistance. By September 2020, this appeal had been funded at just \$50.7 million.⁴

The COVID-19 global pandemic will pose additional challenges to general development in Haiti in the years to come. Even before the pandemic, Haiti's economy was facing severe structural imbalances. It has long been balance of payment constrained, dependent on imports for key food and non-food products, and subject to persistent exchange rate shocks due to its exports of low-technology-value added products. In addition, low growth and employment levels, high levels of informal employment, structural inequality, and recurring natural shocks continue to worsen poverty rates and vulnerability. Political instability, institutional implosion, and weak governance further exacerbate the deteriorations in social well-being.

This report provides an overview of the general livelihood, market, and food assistance context in Sud and Grand'Anse departments in Haiti. Chapter 2 presents the characteristics of the context in the country and the departments of interest. Chapter 3 provides an overview of the market situation for

¹ UNDP 2019.

² WFP 2020.

³ IPC 2020. Report available at: <https://reliefweb.int/report/haiti/haiti-ipc-acute-food-insecurity-analysis-october-2019-june-2020>

⁴ Food Security Cluster 2020b.

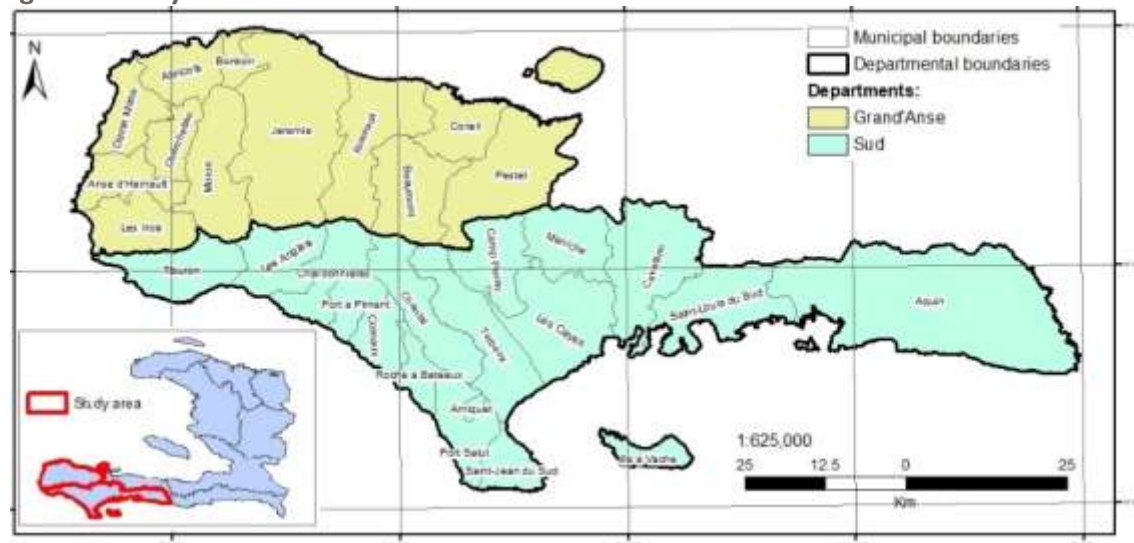
selected food staples. Chapter 4 offers insights regarding past experiences with food security/food assistance programming in the country and areas of interest. Chapter 5 summarizes considerations for programming efforts in these areas.

The research team employed a mixed-method design. The analysis is informed by a review of previous market assessments conducted by domestic and international non-governmental organizations (NGOs) and other development organizations, including Catholic Relief Services (CRS), *Coordination Nationale de la Sécurité Alimentaire* (CNSA), Caribbean Export, the Famine Early Warning Systems Network (FEWS NET), and the Food and Agriculture Organization of the United Nations (FAO), and is complemented with primary data collected through surveys with diverse actors operating in the focus areas. Data collection in Grand’Anse took place between August and September 2020, experiencing significant disruptions to field operations related to extreme weather, fuel shortages, electricity outages, frequent protest-related roadblocks, and COVID-19 related restrictions. No data was collected in Sud. Additional methodological insights are presented in Annex I.

2. General context in southern Haiti

This chapter provides an overview of southern Haiti’s socioeconomic, environmental, infrastructure, and policy contexts. Annex 2 provides additional information on relevant factors at the national level. Figure 1 places Grand’Anse and Sud in a national map of Haiti and also highlights the two departments’ administrative subdivisions.

Figure 1. Study areas: Grand’Anse and Sud



Source: CNIGS, 2003.

Socioeconomic context

Population

The population of Haiti was estimated at 11.26 million in 2019. According to the Haitian National Institute of Statistics (IHSI⁵ in French), the population in Grand’Anse and Sud constitutes about 4.2 and 7.1 percent of the total population, respectively. About 39 percent of the population in both departments are under the age of 18.⁶

Poverty

About 60 percent of the Haitian population was living in poverty in 2015, subsisting on \$2.41 per day or less. Twenty-four percent fell below the extreme poverty line of \$1.25 per day.⁷ Persistent inequality—

⁵ Institut Haïtien de Statistique et d’Informatique (IHSI)

⁶ IHSI 2019.

⁷ World Bank 2020a.

along with a widening fiscal deficit, declining economic growth (-0.9 percent), and a rising rate of inflation (14 percent)—all contribute to the perpetuation of poverty.⁸

Approximately 70 percent of the population in Grand’Anse and 50 percent in Sud live in the bottom two quintiles for asset distribution.⁹ Determinants of poverty disaggregated by department can be analyzed by defining poverty as the bottom quintile of the wealth index based on the 2017 Haiti Demographic Health Survey (DHS) (i.e. the bottom 20 percent of households in each department are living in poverty). Previous assessments of determinants of household poverty have suggested that the poor in Sud are more likely to live in households headed by men with low levels of education. They tend to live in structures with walls made from mud/dirt or cane/palm, and lack access to safe drinking water. They are also less likely to own mobile phones or modes of transportation. Many of these predictors of poverty are similar for Grand’Anse, except for the gender of the head of household.¹⁰

Food insecurity and malnutrition

Rice, wheat flour, maize, sorghum, pulses (beans and peas), banana (plantain), tuber (yams, cassava or yuca, and sweet potato), and edible oil¹¹ are the staple foods in the Haitian diet, providing about 1,870 calories per day. This nutritionally unbalanced food basket is representative of the food consumption of low-income households.

The extent of food insecurity is high in the departments of interest. In 2019, 77.9 percent of the population in Grand’Anse and 46.3 percent in Sud were considered food insecure.¹² The situation is deteriorating amid the unfolding COVID-19 pandemic. A recent IPC report found that 4 million Haitians faced acute food insecurity in August 2020. The IPC analysis¹³, which utilizes five phases to classify the severity of acute food insecurity,¹⁴ projected about one million Haitians be in phase 4 IPC (humanitarian emergency) and 3.1 million in phase 3 IPC (acute food and livelihood crisis) by February 2021. According to the analysis Grand’Anse will have 189,677 and Sud will have 232,174 food insecure individuals by February 2021. More specifically, 45 percent of people in Grand’Anse and 32 percent in Sud were anticipated to be in the crisis or emergency phases of food insecurity (Figure 2).¹⁵

⁸ World Bank 2020a.

⁹ 2017 Haiti Demographic Health Survey

¹⁰ Viceisza et al. 2020; Jadotte 2010; Échevin 2014.

¹¹ FEWS NET 2018.

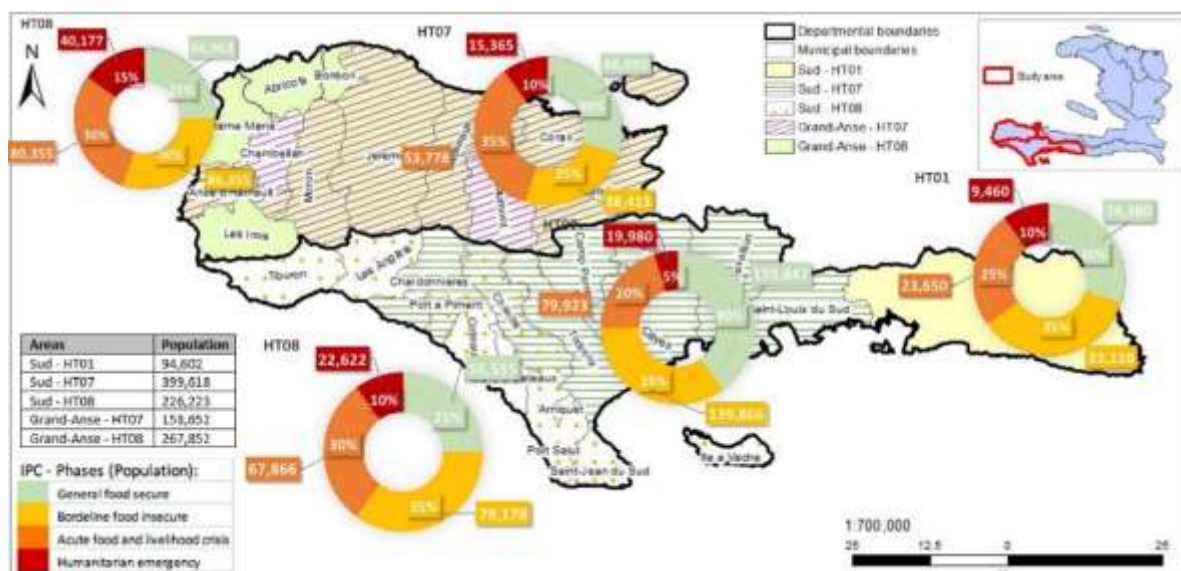
¹² CNSA 2019a.

¹³ The analysis was carried out by several development partners, including CNSA, Action Against Hunger, Care, CILSS, FAO, FEWS NET, the food security cluster, the nutrition cluster, Oxfam, Save the Children, IGAD, PROGRESAN-SICA, SADC, UNICEF, and the World Food Programme.

¹⁴ Acute Food IPC : Phase 1 (Minimal) ; Phase 2 (Stressed) ; Phase 3 (Crisis) ; Phase 4 (Emergency) ; Phase 5 (Famine)

¹⁵ IPC 2020.

Figure 2. Integrated food security phase classification (2019–2020)



Source: Authors' elaborations based on CNSA 2019b.

The rate of child malnutrition in both departments is reflective of the situation countrywide. Stunting in both departments is 22 percent, equal to the national average. Sixty-eight percent of children in Grand'Anse and 70 percent in Sud are anemic, slightly above the national average of 66 percent. Food insecurity translates into low food diversity scores, low intake of vitamin A, and low iron-rich foods.¹⁶

Intra-department differences have also been documented in these areas. The next section will, in part, detail the distinct zones that register different outcomes in a variety of indicators.

Livelihoods and food consumption

The term livelihood refers to the way in which people make their living. Livelihood profiles help us understand a population's sources of income and food consumption and contextual factors that can contribute to food insecurity. Livelihood zones define geographic areas of a country where people generally share similar options for obtaining food and income and similar access to markets.

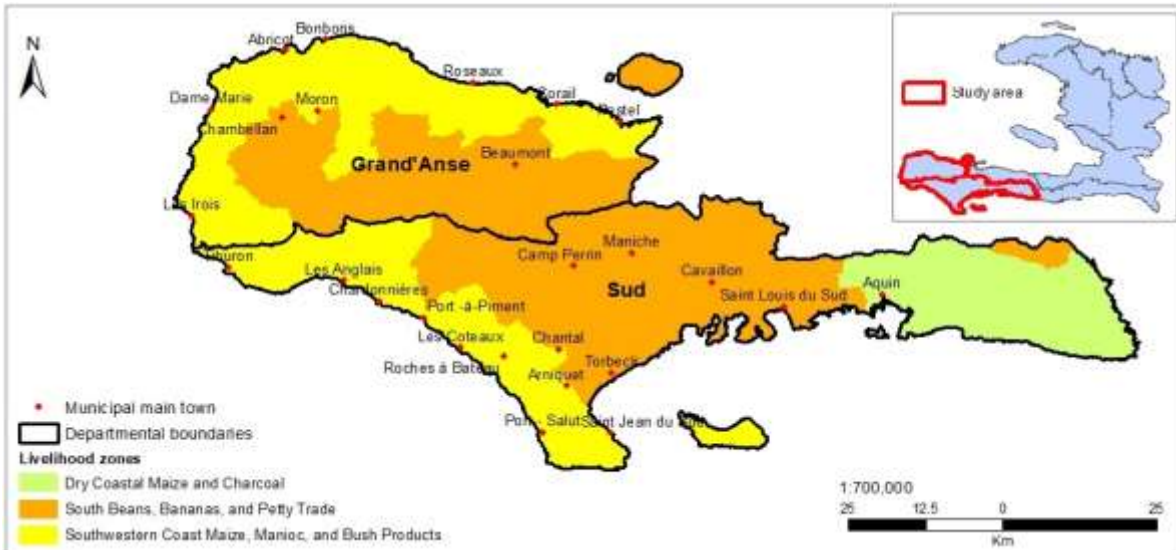
The characterizations of the population's livelihoods presented in this report are based on livelihood profiles developed in 2015 by FEWS NET in collaboration with other partners.¹⁷ This resource identified eight livelihood zones in Haiti, named as HT01 through HT08. Where feasible, this information has been updated with the corresponding information from the *Enquête Nationale d'Urgence sur la Sécurité Alimentaire et Nutritionnelle* (ENUSAN) 2019, a nationally representative survey conducted by the Government of Haiti that provides information at the livelihood zone level.

¹⁶ Results based on the 2017 Haiti Demographic Health Survey (IHE and ICF 2018).

¹⁷ FEWS NET 2015.

The livelihood zones that span southern Haiti, specifically the Grand’Anse and Sud departments, include: Dry Coastal Maize and Charcoal (HT01); South Beans, Bananas, and Petty Trade (HT07; and Southwestern Coast Maize, Manioc, and Bush Products (HT08) (Figure 3). Agriculture is the primary source of income for poor rural households in these areas. Fifty to 90 percent of households in Sud and 75 to 95 percent in Grand’Anse are estimated to engage in agriculture.

Figure 3. Livelihood zones present in the study area



Source: FEWS NET 2015.

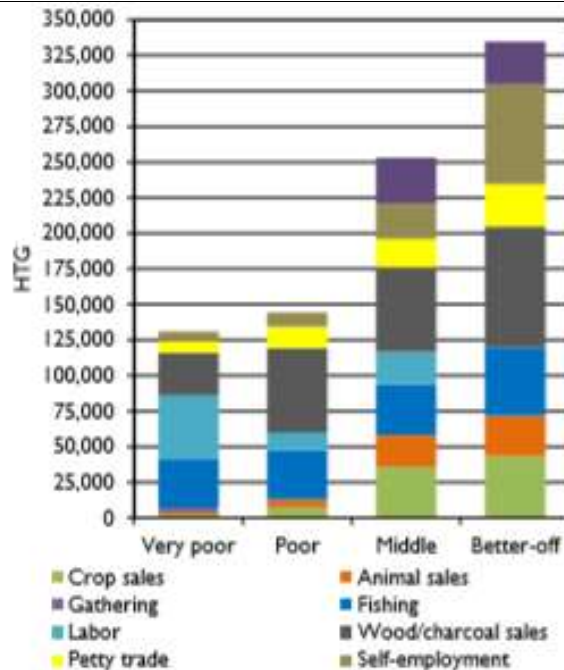
Dry Coastal Maize and Charcoal (HT01)

The Dry Coastal Maize and Charcoal zone is located on the southeast side of Grand’Anse. This zone is made up of coastal plains and dry bush and savanna grass covering plateau areas. It is usually found within 20 km from the coast, which includes major fishing areas for lobster and conch. This zone produces crops such as maize, cowpea, lima bean, and pigeon peas, cassava, and peanuts.

Two rainy seasons in the zone occur in April/May and November. Droughts are experienced during July and August, resulting in two low-production growing seasons per year.

Income in the zone is based primarily on agricultural production, but shortage of land and unpredictable climatic events force poorer households to look for additional

Figure 4. Sources of income in livelihood zone HT01



Source: FEWS NET 2015 (extract from page 12).

sources of income such as fishing, wood, and charcoal sales (Figure 4). Furthermore, poor households are more likely to earn income from casual labor, while wealthier households earn significantly more from crop sales and sales of livestock.

Poor households, less likely to own land than their wealthier counterparts, are most vulnerable to climatic events. Agropastoral activities are predominant in this region for wealthy households who own livestock (cattle, goats, pigs, and horses). Poor households typically rear small livestock.

Households in the HT01 zone in Sud rely almost entirely on purchases for accessing their foods. Food purchases are the largest expenditure for households, and according to the ENUSAN 2019, 94 percent of households in HT01/Sud depend on market purchases. Market dependence is even more marked among poor households. All households purchase rice, wheat, or maize flour. Staple foods in this zone include maize and pearl millet, beans, rice, and flour.

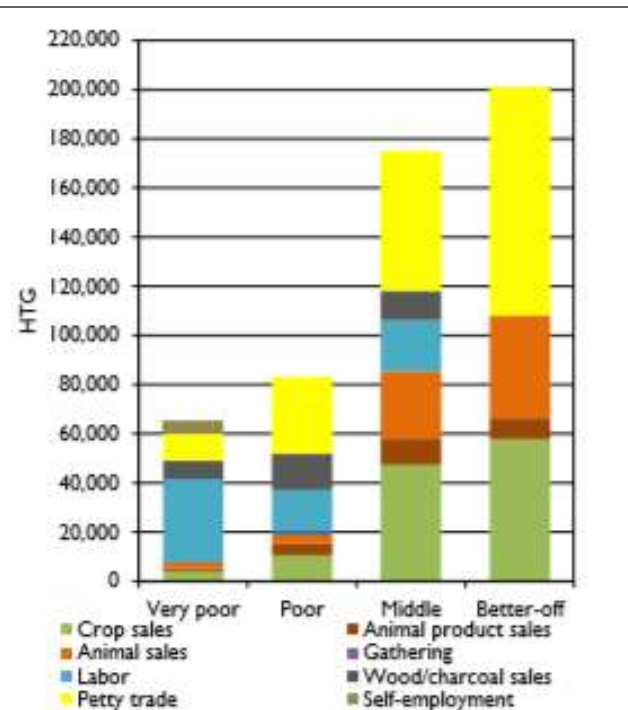
South Beans, Bananas, and Petty Trade (HT07)

The South Beans, Bananas, and Petty Trade livelihood zone is found in both Sud and Grand’Anse. This is the largest livelihood zone in Haiti. It has two rainy seasons: a short rainy season from September to November and a longer rainy season from February to May.

The zone is moderately fertile, allowing for production of maize, sorghum, peas, pigeon peas, cassava, sweet potatoes, yams, and bananas. Rare cash crops are also grown in the region, including coffee and peppers. Farming activities take place throughout the year, but the intense farming season occurs from March to August. Market prices during this time may decrease due to overabundance.

Households in the zone engage in a variety of income-generating activities (Figure 5). Petty trading is a significant source of income, followed by crop production. In 2015, typical annual income for better-off households was three times higher than that of very poor households.¹⁸ Poor households tend to make significantly less income from crop production compared to wealthy households. Selling charcoal and wood generally provides additional income for all households.

Figure 5. Sources of income in livelihood zone HT07



Source: FEWS NET 2015 (extract from page 48).

Land access is a driver of poverty in the region.

Poor households have less land available to cultivate crops, and they usually engage in causal labor for

¹⁸ FEWS NET 2015.

exchange of cash or in-kind payments. Poor households often have to lease their land or participate in sharecropping in order to harvest and sell their own crops.

Poor and non-poor households rear different livestock. Households who can afford to have livestock assets typically will have goats, cattle, and pigs, and wealthy households will have horses or donkeys.

Crop production in the zone contributes to household food baskets. The main crops consumed include maize, peas, bananas, pearl millet, and tubers. Due to low productivity of these crops, however, households may have to buy additional commodities at markets. According to the ENUSAN 2019, 59 percent of households in HT07/Grand’Anse and 89 percent in HT07/Sud depend on market purchases. Purchases include imports like rice, sugar, pasta, and oil. Staple foods such as rice, maize, and peas are the most widely purchased. Wealthier households buy and consume animal products.

Southwestern Coast Maize, Manioc, and Bush Products (HT08)

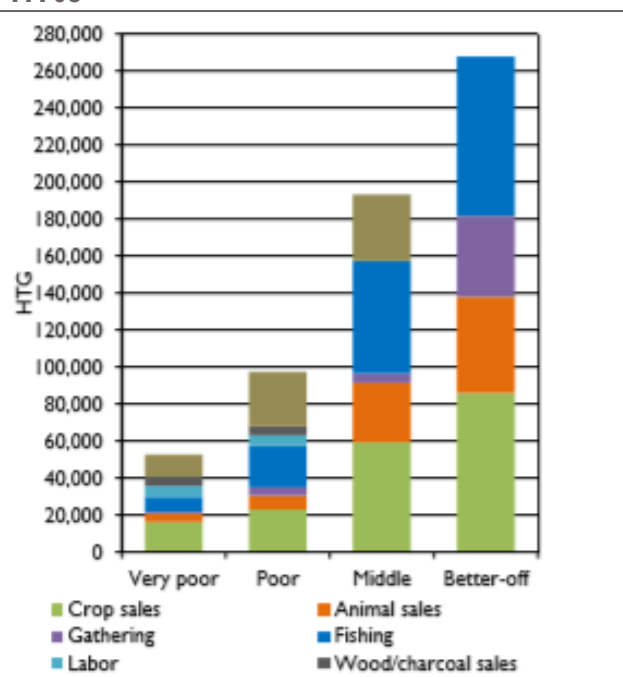
This livelihood zone covers the majority of the southwest regions of both Sud and Grand’Anse. The zone has a diverse geography, including a coastal area. There are two rainy seasons, the first from September to November and the second from April to June. Rain is abundant in this region.

The vegetation of the region is diverse, and includes mangroves, forest trees, fruit trees, and brush. The region relies on rainfed agriculture, and the main crops produced are maize, rice, legumes (peas, beans, and peanuts), roots and tubers, (yams, sweet potatoes, and cassava), plantains, and fruits (fig bananas, coconuts, mangoes, pomegranates, citrus fruit, and breadfruit). Rice and maize are produced in small quantities in the region.

Diverse activities in the livelihood zone contribute to household incomes. Households engage in agriculture, livestock-rearing, the gathering of wild food products, fishing, labor, trade, and charcoal production (Figure 6). Wealthier households tend to have more land, have livestock assets, and are able to afford production equipment to generate higher income.

Accessing markets is difficult in this zone, as many roads are underdeveloped or inaccessible. The poor conditions of the roads leads to higher food prices. Households rely on local production to ensure food security and include breadfruit as a staple of their local diet to help meet food needs. According to the ENUSAN 2019, 79 percent of households in HT08/Grand’Anse and 87 percent in HT08/Sud depend on market purchases. Expenditures on foods for households includes buying of staple food such as rice, maize, and beans.

Figure 6. Sources of income in livelihood zone HT08



Source: FEWS NET 2015 (extract from page 53).

Other sources of income: Moto-taxi and migration

Moto-Taxi

Motorcycle taxi (i.e., “moto-taxi”) businesses have gained a lot of importance in Haiti’s economic landscape as an income-generating livelihood activity, especially for young men. For the purpose of this study, a small sample of 22 moto-taxi operators were interviewed in Grand’Anse to inform qualitative insights on their role in the livelihood patterns in this department.¹⁹ Primary data collection was not possible for Sud.

In Grand’Anse, persons surveyed have been working as moto-taxi drivers for 6.8 years on average. Close to half of them own their motorcycle. Most owners have been carrying out this activity for a longer period (more than seven years). Operators were able to purchase motorcycles mainly through their own resources, the sale of assets (land and livestock), and by incurring debt. Those who do not own motorcycles work through an operating contract toward purchase or by daily lease.²⁰ On average, moto-taxi operators interviewed earn 16,700 gourdes per month. Contracting or lease costs amount to 12,600 gourdes per month on average.

Moto-taxi operators also use motorcycles to transport merchandise. Motorcycle thefts and risk of accidents/death were the main challenges reported in this activity. The majority of the persons interviewed in Grand’Anse also produce crops (maize, pulses, roots, and tubers) and own livestock (mainly chicken and goats).

Migration

As in other regions of Haiti, migration is a common adaptation strategy adopted by Haitians living in Grand’Anse and Sud. In fact, Sud is among the departments contributing the most to the migrant population. Environmental vulnerability and high levels of unemployment across Haiti drive migrants to seek improved living conditions in other regions of Haiti and in other countries. Thanks to remittances, household members left behind are better able to meet their basic needs.

Nationally, 9.5 percent of households report having members who have migrated, with 66 percent of all migration being internal, with people moving to other communes or departments within the country. International migrants cross the land border to the Dominican Republic (19.2 percent) or travel to the United States (9.2 percent), and Latin America (5.7 percent). Migrants cite labor and work (40 percent), education (26 percent), security (4.6 percent), and health (3.9 percent) as their primary motivations. Sud department contributes with close to 20 percent of all migrants at the national level, while Grand’Anse with less than 10 percent.²¹ Table 2 presents migration destinations for migrants from Grand’Anse and Sud.

¹⁹ Further methodological information is available in Annex I.

²⁰ Under the terms of these contracts, a person with financial capacity buys the motorcycle and provides it to a moto-taxi driver, who pays a fixed amount per day or week over a certain period (1 to 1.5 years or longer). At the end of this period, the motorcycle becomes property of the operator.

²¹ CNSA 2019a.

Table 2. Percent of migrants in the study area who have moved to various destinations

Migrant Destinations	Grand'Anse (%)	Sud (%)
Other communes in same department	20	20
Other departments	58	69
Dominican Republic	3	4
Latin America	5	2
United States	12	2
Other locations	10	6

Note: Respondents were given the option of answering yes to more than one option.

Source: CNSA, 2019a.

Neither Sud nor Grand'Anse share borders with the Dominican Republic, so it should not be surprising that its inhabitants migrate domestically at higher rates than the national average. Migrants in Sud cite work/labor as their primary reason for migrating (61 percent), followed by education (10 percent), and security (9 percent). In Grand'Anse, migrants cite work/labor (52 percent) and education (36 percent) as their motivations. In general, the most vulnerable households are less likely to migrate, while slightly better off (but still poor) households are the most likely to use migration as an adaptation strategy. Households that do migrate tend to be better off economically and achieve higher levels of education.²²

Much of the focus on migration in Haiti is on migrants to the Dominican Republic, who are particularly vulnerable to racially motivated discrimination, abuse, and deportation. Certainly some of these migrants come from Grand'Anse and Sud, but as mentioned, migrants from the southern AOI tend to move within Haiti. These migrants are a vulnerable population who are more likely to be subjected to sexual violence and forced labor.²³ IOM border monitors at Malpasse (Ouest) and Ouanaminthe (Nord-Est) found just 1.6 percent of Haitians returning from the Dominican Republic were returning to Sud, and 0.4 percent to Grand'Anse.²⁴

Households in Sud and Grand'Anse also rely heavily on remittances from migrant family and friends in the large Haitian diaspora. According to CNSA, 18 percent of Haitian households received remittances in 2019, with 20 percent of urban households and 13 percent of rural households relying on remittances as their main source of income.

²² Milan et al. 2015.

²³ Murray, J.P. 2020.

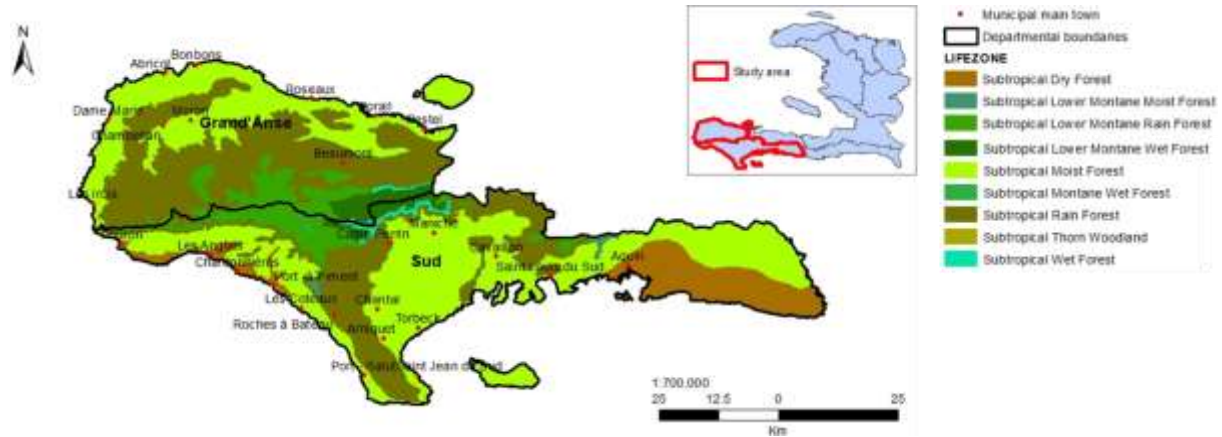
²⁴ UN Migration 2020.

Climate

Agroecology

Haiti presents important agroecological diversity across departments and communes. Figure 7 provides an overview of different agroecological areas present in Grand'Anse and Sud.

Figure 7. Agroecological areas in the study area



Source: GeoNetwork, 2007.

Both departments present a mix of agroecological profiles: subtropical dry forest, subtropical rain forest, and subtropical moist forest.

Rainfall totals vary widely across the country, with the southern region of Haiti receiving more rainfall than other areas. Short term variability is influenced by the occurrence of the El Niño/La Niña phenomenon. El Niño, which occurs every three to five years, is accompanied by drier and hotter climatic conditions, particularly between August and November. On the contrary, La Niña events are accompanied by cooler and wetter conditions.²⁵

HT01 in Sud experiences relatively low rainfall, with annual precipitation ranging from 400 to 1,000 mm. Two growing seasons are feasible in this area, given the distribution of rains over the year. The area is next to the coast, facilitating fishing activities.

As noted, the HT07 zone is large, covering parts of Grand'Anse and Sud. The area is considered moderately fertile, characterized by clay-silt soils, with average temperatures ranging from 25 to 30° C and average rainfall of 900 mm.

HT08, also present in Grand'Anse and Sud, covers the most distant part of the country. The zone is diverse in geography and vegetation, ranging from coastal areas to plains, foothills, and semi-humid plateaus. Rainfall varies, with annual averages between 1,200 and 2,000 mm.²⁶

²⁵ Taylor et al. 2015.

²⁶ FEWSNET 2015.

Climate risks and natural disasters

According to the 2020 Climate Risk Index,²⁷ Haiti was one of the three countries most affected by extreme weather events from 1999 to 2018. After the devastating earthquake of 2010 that killed an estimated 300,000, a succession of climatic events have severely impacted the population's livelihoods and the physical environment. For instance, between 2014 and 2017 the country experienced drought conditions due to El Niño phenomenon, was hit heavily by Hurricanes Matthew in late 2016 and Irma in late 2017, and registered erratic rainfall in early 2017. More recently, in 2018-19 another drought was experienced and Tropical Storm Laura hit the country in July 2020. It is projected that future years will present a drying trend with rainfall totals decreasing by as much as six percent and temperatures increasing (up to 1.24 degrees Celsius or 2.23 degrees Fahrenheit) during the 2030s. The expected reduction in rainfall will occur during the summer.²⁸

The impacts of adverse climatic conditions are manifold. Intense rainy seasons, hurricanes, and rising sea levels are expected to contribute to intense flooding and soil erosion, particularly in the southern departments.²⁹ The Category 4 Hurricane Matthew resulted in \$2.8 billion in losses, including nearly \$850 million in the housing sector, \$570 million in agriculture, and \$44 million in water and sanitation.³⁰ Grand'Anse and Sud are at particularly high risk for hurricanes, as demonstrated by the devastating impacts of Hurricane Matthew and Tropical Storm Laura.

Economic and sociopolitical conditions make Haiti particularly vulnerable to long-lasting effects of natural disasters and climate-related events. Annex 2 presents an overview of diverse environmental hazards observed in Haiti.

Infrastructure

Roads

Haiti's road infrastructure remains deficient and poorly maintained. The road network plays a vital role in connecting the country and facilitating increased inter- and intra-national trade opportunities. Due to natural disasters, however, Haiti's roads are degrading faster than existing roads are rehabilitated and new ones are built.

With a total length of 3,563 km, Haiti's national road network consists of 905 km of primary roads (25 percent), 1,315 km of secondary roads (37 percent), and 1,343 km of tertiary roads (38 percent). This reflects very low coverage levels for both the size of the population (0.4 km/1,000 inhabitants) and the surface area of the country (0.12 km/km²). Only 10 percent of the network is in good condition, and overall, less than 20 percent of roads are paved.³¹ None of the National Routes have lighting, rest areas,

²⁷ Eckstein et al. 2019.

²⁸ Taylor et al. 2015; USAID 2019a.

²⁹ USAID, 2019a.

³⁰ TRANSNUT 2017.

³¹ Logistics Cluster Unite Haiti 2012; Mitnik et al. 2018.

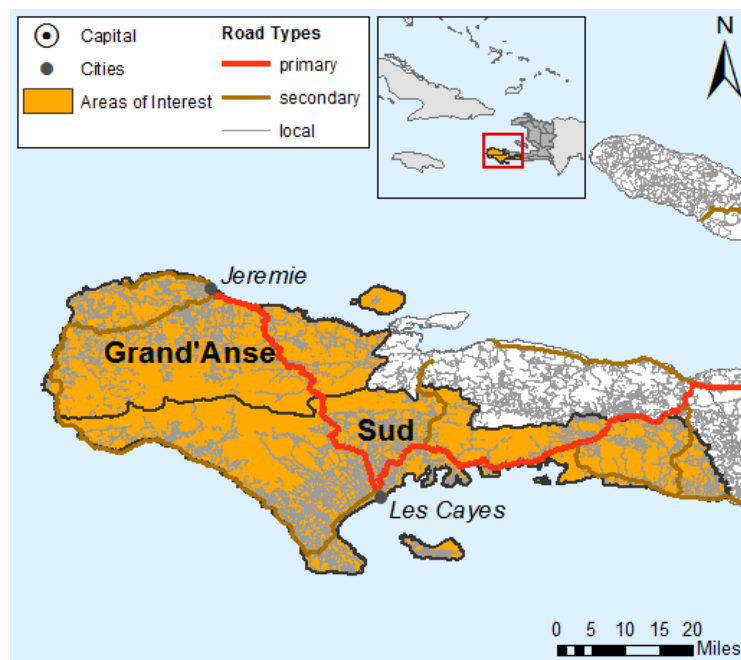
or infrastructure to handle accidents or other emergencies. Due to political instabilities since July 2018, the roads are often blocked by protesters, and trucks are subjected to robberies by regional gangs.

In the study area (Figure 8) there are two main national roads: one linking Port-au-Prince to Les Cayes (National Route 2) and one linking Les Cayes to Jérémie (National Route 7). Paved roads end at Port-a-Piment, resulting in less access to services and trade for rural communities. In Grand’Anse, roadways beyond National Route 7 are few. The western part of Grand’Anse is accessible by Route 72, which crosses the interior. Coastal roads serve settlements along the north coast. In many locations moto-taxis are the most utilized form of transport.³²

Traffic in southern Haiti is low. The communal roads, which are suitable for motor vehicles, ensure the availability of basic services (procurement of provisions, education, and health) and opportunities for economic development (production, trade) in the communes.³³ However, the width and surfaces of roads in both departments vary widely along their route. For instance, closer to towns roads are often two lanes and paved, while in more remote rural locations the same road may be surfaced with dirt and be of variable width.

Due to the deterioration of the roads, transit between many locations in these departments is slow and difficult. This results in high transportation costs and extended travel times across the broader region. Table 3 presents the estimated travel time between major cities in southern Haiti.

Figure 8. Primary and secondary roads in the study area



Source: OpenStreetMap 2020.

³² ACAPS 2016.

³³ Mitnik et al. 2018.

Table 3. Travel time between major cities

	Capital	Cap-Haitien	Gonaives	Jacmel	Les Cayes
Capital		6 hrs	3 hrs	3.5 hrs	6 hrs
Cap-Haitien	6 hrs		3 hrs	7.5 hrs	12 hrs
Gonaives	3 hrs	3 hrs		6.5 hrs	7 hrs
Jacmel	3.5 hrs	7.5 hrs	6.5 hrs		3.5 hrs
Les Cayes	6 hrs	12 hrs	7 hrs	3.5 hrs	
Capital		6 hrs	3 hrs	3.5 hrs	6 hrs

Transportation (inland) and distribution of food

Poor road conditions in Haiti create significant financial challenges to lucrative agriculture value-chains. Trucking operations are expensive and fragmented with multiple small operators. It is therefore difficult to quantify the number of transportation contractors and the number of trucks in operation. Despite the steep barriers to entry in some segments of the sector, companies such as BRANAH, have developed and implemented their own shipping infrastructures to reduce long-run costs. Other companies with daily demands (*Brasserie La Couronne, Les Moulins d’Haiti, SEJOURNE S.A.*) will put some individual transporters on a base contract in which prices are predetermined and fixed by the hiring company. The price per ton-km transported is U.S. \$0.43 for freight, the highest in the Caribbean region and about 3.9 times the average for Central America. Road conditions are a significant contributor to this high cost, pushing the price per ton-km up by 25 percent, according to the Trucking Survey in Haiti.³⁴

International and non-governmental organizations utilize bills of lading to transport goods to their warehouses. This shifts logistical constraints to the shipping companies.³⁵ Table 4 presents the top 10 inland transporters in 2020. Lack of regulations and informality cause transportation prices to vary markedly, including from factors such as local currency depreciation, rampant inflation, and sporadic fuel shortages. Other important risks associated with road transportation also drive up transportation costs.

Storage

Given that many key staple foods for Haiti are often imported, a storage network is another important consideration for market analysis. In port cities

Table 4. Top ten inland transporters in 2020

Name	Rank
Raymond Thomas and Son	1
Telius Transport	2
Truck Maxx	3
Mad Logistic	4
All Transport and Logistic (ATL)	5
National Transport Service	6
St Lot Transport	7
Haiti Transport	8
Transec Plus S.A	9
Transport Pro	10

Source: Personal communication with a large scale transporter.

³⁴ World Bank 2018b.

³⁵ FINTRAC 2013.

such as Port-au-Prince, warehouses receive and store large shipments until items are dispatched to mid-sized retailers based in other cities and urban zones or to food industry processing facilities.

Stakeholders with storage facilities in Haiti include the public sector, private investors, the development community (non-governmental organizations and international organizations), and small entrepreneurs. Resellers with short-term needs that include rental of storage space for commodities tend to enter into agreements with small entrepreneurs.

Storage facilities are primarily set up near the Port-au-Prince port, the mostly used to receive imported goods. For the case of food aid, joint storage facilities are offered by the World Food Program (WFP) in Port-au-Prince, Jacmel, Les Cayes, Gonaives, Cap Haitien, and Jérémie. Les Cayes and Jérémie are located in the departments of interest. UNICEF also manages a storage space of 3,860 sqm in Port-au-Prince, IOM has 3,400 sqm, and IFRC has 4,500 sqm.³⁶

Commercial storage is not available in the regions of interest.³⁷ The Haitian private sector is trying to offer storage opportunities, but storage capacity remains insufficient in the event of an emergency. In the past years, improvements in the handling of cargo and reception capacity at ports have taken place, but massive container arrivals, such as necessary for emergency response, may pose logistical challenges. Space at container yards and handling equipment are insufficient, and tracking is often inadequate, which may cause a delay in deliveries.³⁸ In recent years, several private investors have made forays into the storage industry in Port-au-Prince, including Shodecosa and Airport Industrial Parc. With respect to public-sector capabilities, SONAPI has expanded its capacity other locations in the country (Port-au-Prince and in Nord-Est).

Privately owned facilities require high security protocols, which drive up user fees. Overall costs associated with either privately owned facilities or SONAPI may be highly prohibitive. As a result, many NGOs and international organizations prefer operating their own storage facilities. WFP has three warehouses with contingency food stocks and commodities for its programs in Port-au-Prince, Cap Haitien, and Gonaives. In fact, WFP and its partners had storage capacity for more than 80,000 MT.³⁹ In relation to the humanitarian response to Hurricane Matthew, the logistics working group coordinated storage in warehouses in Les Cayes (1,680 m²) and Jérémie (2,080 m²), in addition to the warehouses in Port-au-Prince.⁴⁰

It may be more cost effective for new users to lease existing storage capacities rather than building new ones. Storage structures are not adequate in the rest of the country. Most are set up as mobile storage units (MSUs) to respond to emergencies. After the 2010 earthquake, humanitarian aid organizations relied on the set-up of MSUs in major cities across the country, such as Cap Haitien, Gonaives, Les Cayes, Jacmel, Saint Marc, and Hinche to provide food aid (among these, Les Cayes is the only city in the departments of interest). MSUs provide a fast solution to an emergency response, but they are not suitable in the event of heavy rains, tornados, and hurricanes and are not earthquake-proof.⁴¹

³⁶ Logistics Cluster Unit Haiti 2012.

³⁷ WFP 2017.

³⁸ Logistics Cluster Unit Haiti 2012; Logistics Cluster 2018.

³⁹ FINTRAC 2013.

⁴⁰ OCHA 2017.

⁴¹ Logistics Cluster Unit Haiti 2012.

In the case of United States' in-kind or large-scale local/regional procurement, there is enough facility storage capacity in the country to prevent spoilage and waste of commodities, but if security cannot be guaranteed by the service providers, other measures must be taken by the tenants to prevent spoilage that can be caused by ravagers such as rats, insects, and other pests.

Ports

The main port receiving food imports in the country is the International Port of Port-au-Prince. The southern region has two ports: Port of Les Cayes in Sud and Port of Jérémie in Grand'Anse. Les Cayes is the biggest port in the area. Infrastructure and operations of both parts are limited.

Electricity

Haitians suffer from lack of electricity. Only 45.3 percent of the total population have electricity and this proportion drops to 3.5 percent in the rural areas.⁴² The national power utility, Electricité d'Haïti, operates one primary grid serving the Port-au-Prince metropolitan area and a small number of isolated regional power grids serving the rest of the country.

Thirty-five percent of Haitians have access to electricity through grids, but those are only estimated to have connections for five to nine hours per day.⁴³ Because of this, electricity is not reliable even for those with access to it. Lack of access to affordable and reliable power hinders investment, constrains the development of productive businesses, and degrades living standards for residential customers. In some cases, beneficiaries pay a fee to charge their phone using a neighbor's power source. Coping strategies for households include using small diesel generators or burning wood and charcoal for essential cooking.

Electrification in Sud is low. Electricity is available in 15 communes, which receive electric service about 6 to 100 hours per week. The remainder of the department is generally without electricity. A micro grid project launched in Les Anglais in 2012 is being scaled up. Access to electricity is also low in Grand'Anse.⁴⁴

The construction of an innovative solar-diesel hybrid mini-grid system is underway in Haiti's rural southwest. This will provide reliable and affordable electricity seven days a week for up to 1,600 households, or 8,000 people. The project is funded by primarily by the Government of Norway in addition to USAID, the Inter-American Development Bank, and the National Rural Electric Cooperative Association (NRECA) International Foundation. It aims to improve access to modern energy services and increase economic development in three coastal towns in Sud.⁴⁵

⁴² World Bank 2018.

⁴³ Belt et al. 2017.

⁴⁴ ACAPS 2016.

⁴⁵ UNEP, 2015.

Telecommunications

Two main operators, Digicel and NATCOM, vie for the telecom market in Haiti. More than 6 million SIM cards associated with the two are in circulation.⁴⁶ The penetration rate is 62.5 percent of the population. Since the entry into the market of VOILA/Digicel, HAITEL, and NATCOM (following the privatization of TELECO), phone penetration in Haiti has increased significantly. In 2018, there were around 57.53 mobile cellular subscriptions per 100 inhabitants in Haiti.⁴⁷ Figure 9 presents Digicel's network coverage.

According to the 2017 DHS results, 77.3 percent of all people age 15 to 49 in Sud and 66.8 percent in Grand'Anse own a mobile phone. There are three major established providers of high-speed internet connections in Haiti: Haiti Networking (or Hainet), Multi-Link, and Access Haiti. These companies provide internet services within Port-au-Prince and surrounding areas, but also, to a lesser extent, in rural areas.⁴⁸ Less than one-tenth of the households have a computer at home (9.4 percent). Less than half of households equipped with computers have Internet access at home (4.4 percent). Only 12.3 percent of Haitians use the Internet in some way, either at work, home, or other communal location. Internet coverage in Haiti remains limited and expensive. Just four percent of households have access through a home-owned computer, and less than one percent of Haitians have mobile internet.⁴⁹ At the department level, Table 5 presents information about internet utilization for men and women ages 15-49.

Figure 9. Digicel service coverage



Source: Digicel

⁴⁶ BRH. 2018.

⁴⁷ Statistica 2020.

⁴⁸ Google 2010.

⁴⁹ Koutroumpis 2017.

Table 5. Use of internet

	Use of internet (%)		For women who have used the Internet in the past 12 months, percentage of those who have used it in the course of the past month:			
	Has used the internet	Has used the internet in the past 12 months	Almost every day	At least once per week	Less than once a week	Haven't used it at all
Women						
Grand'Anse	15.9	14.0	44.4	30.0	17.2	8.4
Sud	25.8	23.7	41.4	30.7	16.1	11.9
Men						
Grand'Anse	19.0	16.6	49.9	24.5	17.8	7.9
Sud	33.0	30.1	65.8	18.3	12.2	3.7

Source: IHE and ICF 2018.⁵⁰

Policy context

Agricultural and food and nutrition related policies

Haiti's Constitution establishes a fundamental right to food security, stating, "The State recognizes every citizen's right to decent housing, education, food, and social security."⁵¹ In practice, however, meeting this obligation at a national level has clearly been one of the country's greatest challenges. The right obliges the Haitian government to "overcome hunger and malnutrition and realize food security for all, including emergencies."⁵² With the agricultural sector employing a considerable share of the Haitian population, the Government of Haiti considers the rural sector an essential engine for growth and poverty reduction in the country.⁵³

In 1987, the government updated Haiti's customs regulations, and since then, the government has issued several official decrees modifying the level of customs duties on virtually all products.⁵⁴ One of the critical factors in creating this situation is the problem of incoherent governmental agricultural sector and national trade policies, leading observers to question these policies in promoting or punishing national production.⁵⁵ The Government of Haiti's long-term goals include reducing food imports and meeting the national demand for food predominantly from domestic production. The border with the Dominican Republic, Haiti's most significant trading partner, is very porous. However, Haiti's laws do

⁵⁰ Haiti Demographic Health Survey 2017 results.

⁵¹ Art 22, Haiti Constitution.

⁵² The Right to Adequate Food (UN Human Rights 2010).

⁵³ USAID 2011.

⁵⁴ U.S. Department of Commerce 2017.

⁵⁵ Wilcock and Franco 2012.

not prohibit genetically modified organisms within the country,⁵⁶ reducing control of food types entering the country.

In March 2017, Haiti announced its intention to renegotiate its tariff rates to make the country compliant with Caribbean Community (CARICOM) regulations, though this proposal is still under consideration. Haiti has no quantitative restrictions on imports, except for flour, sugar, peas, rice, maize, millet, pork offal, and poultry cuts, subject to a non-automatic licensing system.⁵⁷ Imports of certain goods are subject to control for security and health reasons. Reasons for prohibition and/or restrictions include protecting Haiti's flora, fauna, and livestock from dangerous diseases. The Ministry of Public Health and Population, the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR), and the Ministry of Environment are responsible for health and environmental controls.⁵⁸

The institutions involved in economic and economic governance-related issues in Haiti—thereby in food security—include the Ministry of Economy and Finance, Ministry of Planning and External Cooperation, Ministry of Commerce and Industry, MARNDR, and the Ministry of the Interior and Collective Territories. The CNSA maintains awareness of hunger and food security issues and develops the National and Regional Plan for Food Security.

The MARNDR plays a significant role in improving food and nutrition security, while the Ministry of Public Health and Population is principally tasked with nutrition-related services.⁵⁹ It has national representation through the Board of Agricultural Department and the Municipal Agricultural Office. The Ministry of Trade oversees whether the government policies with respect to small business development and, in conjunction with the Ministry of Work and Social Affairs (MAST in French), addresses inequalities. The abolition of the National Commission for Hunger and Malnutrition in 2014⁶⁰ diminishes the significance of food and nutrition security on the political agenda.⁶¹

In the summer of 2020, the Haiti Central Bank, *Banque de la République d'Haïti* (BRH) adopted a new policy that will drastically impact currency transactions such as those involved in personal remittances toward Haiti. The BRH 114-I bulletin requires international cash transfers be remitted in the local currency, rather than in the sender's currency of choice (typically U.S. dollar). While the policy seeks to regulate the exchange rate and other financial transactions, it affects the recipients of remittances who lose purchasing power. While this is a monetary policy, it certainly impacts the food and nutrition security of those whose income is supported through remittances from abroad.

⁵⁶ Greenhalgh, M. 2010.

⁵⁷ U.S. Foreign Commercial Service and U.S. Department of State. 2018.

⁵⁸ U.S. Department of Commerce 2017.

⁵⁹ Duvivier, P., and M. L. Fontin. 2017.

⁶⁰ As well as the abolition of the Office of the Minister Delegate to the Prime Minister Responsible for Human Rights and the Fight against Extreme Poverty.

⁶¹ Scaling Up Nutrition 2017.

Social protection

Until recently, Haiti’s social protection policy and vision was largely nonexistent. Interest in establishing a social policy emerged in the second half of the 2000s and only became more developed in the last 10 years. Two recent drivers were the social protection project, Kore Lavi (initially funded by USAID), which links emergency response and social safety net programming, and the ongoing support of agencies WFP, CARE, and ACF to cash-based social protection following Hurricane Matthew.

Funded by USAID and with the technical support of WFP, the Government of Haiti adopted the National Policy for Social Protection and Promotion (PNPPS) on June 5, 2020, which provides the framework for social protection in Haiti and establishes the role of MAST. The PNPPS is the framework for food assistance safety nets, particularly regarding the use of cash and vouchers, but it requires further capacity development to ensure interventions are effective and efficient.⁶²

Implementing a sustainable social protection program in Haiti has been difficult. With the government limited in resources, Haitian households remain vulnerable to shocks induced by natural disasters or health-related events.⁶³ In 2013, the Government of Haiti made important efforts to expand social assistance provision under the “Ede Pèp” program⁶⁴. However, the program was found to be too fragmented and not targeted enough to make a significant difference.⁶⁵ The main initiatives included “Ti Manman Cheri,” “Kore Granmoun,” and “Kore Moun Andikape,” with a significant component of food assistance that included solidarity baskets and community restaurants.

Through these policy initiatives, the Government of Haiti provided money and in-kind assistance to poor families. In contrast to similar initiatives launched by other countries, the assistance was not contingent on school attendance or the use of health centers. Most of these programs stopped at the end of 2015, but MAST continues with traditional cash assistance on a significantly reduced scale. Kore Lavi was initially implemented by CARE in collaboration with MAST. WFP has been supporting Kore Lavi since 2013. Since 2019, the project was fully handed over to MAST, but with continued technical support. But a series of political upheavals led to months-long shutdowns of programs, natural disasters which shocked the economy, and now the COVID-19 crisis may further cripple the economy and inhibit the ability of the government to provide assistance to vulnerable groups.

⁶² OCHA, 2020b.

⁶³ Just 8 percent of Haitians benefited from non-contributory social assistance benefits (including scholarship, food aid, or other transfer) in 2012 (World Bank and ONPES, 2014).

⁶⁴ In creole, “help people”.

⁶⁵ World Bank 2015.

3. Market context in southern Haiti

General market context

Food consumption

According to the CNSA, six products compose the basic food basket in Haiti: rice, wheat flour, maize, beans, sugar, and vegetable oil. As noted earlier, this basket is representative of the consumption patterns of low-income households, providing 1,870 calories per person per day. It is important to note that this basket is not a nutritional food basket. It reflects the population’s consumption patterns rather than an ideal basket based on nutrition recommendations. Table 6 shows estimated consumption levels per capita of these products.

Table 6. Consumption of main food groups

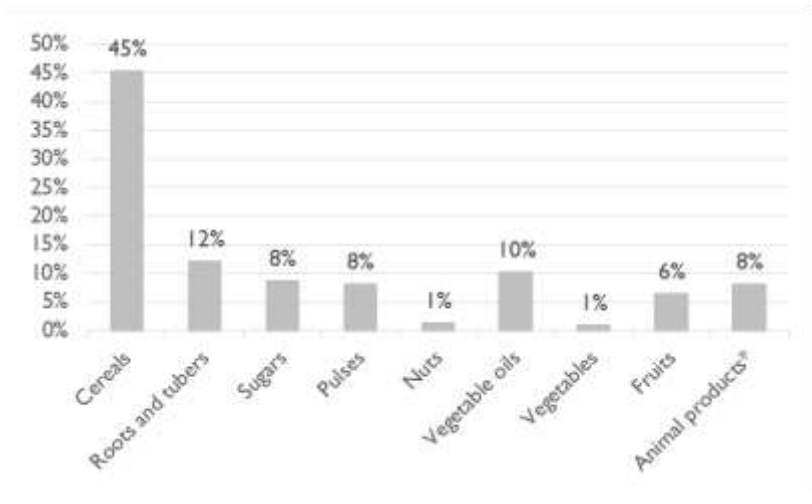
Products	Per capita consumption (kg/year)
Cereals	92
Pulses	20
Starchy roots	34
Vegetable oil	10

Source: FAO and WFP, 2017; FEWS NET 2018.

Among the staples, some geographic variation is observed with respect to the population’s preferences. Generally, consumers prefer staples produced in Haiti over imported products. Imported products (such as rice or maize/maize meal) are nonetheless widely consumed, as they are typically more affordable, and readily available throughout the year.

Haitians also consume other locally available products, such as bananas, plantains, groundnuts, multiple fruits (citrus fruits, mangos, avocados, breadfruit, pomegranate, watermelon, papaya, pineapple, guava, mangosteen, etc.), vegetables (tomatoes, onions, carrots, etc.), animal products, and processed foods (pastas, bakery products, etc.). Many of these products are produced

Figure 10. Calorie availability from different foods by 2017



*Animal products includes meat, dairy, eggs, fish, and seafood.

Source: FAOSTAT, 2020.

for export.⁶⁶ Figure 10 provides an overview of the distribution of the calorie availability in the country based on the 2017 FAO food balance sheet.

In 2019, the ENUSAN⁶⁷ assessed the adequacy of food consumption in the country. It found that in 51 percent of households, food consumption was nutritionally inadequate, with low or lack of consumption of animal proteins, dairy products, and fruits and vegetables. According to the survey, food consumption was inadequate in 61 to 80 percent of households in Grand’Anse and 32 to 51 percent of households in Sud. The broad range is due to the variety of livelihood zones within the departments. Table 7 presents the number of days within a seven-day recall period during which households consumed various food products.⁶⁸

Table 7. Number of days consuming different foods (seven-day period)

Product	Grand’Anse		Sud		
	HT07	HT08	HT01	HT07	HT08
Cereals and roots/tubers	6.9	5.7	6.3	6.6	6.3
Oils and fats	6.6	6.2	6.2	6.8	6.5
Pulses	1.9	2.5	4.4	5.2	3.9
Sugar and sweeteners	2.8	2.9	0.9	4.3	3.3
Animal protein	0.8	2.3	1.9	2.6	2.7
Vegetables	3.9	1.9	1.6	1.9	1.5
Fruits	1.5	1.1	0.6	0.8	1.6
Dairy products	0.2	1.1	3.3	0.6	1.5

Source: CNSA 2019a.

Thirty percent of the population within the HT01 livelihood zone in Sud consumes four or fewer food groups, and over 40 percent do not consume foods rich in Vitamin A or iron. In HT07 areas of Sud, 19 percent of the population consume four or fewer food groups, 51 percent do not consume foods rich in Vitamin A, and 34 percent does not consuming foods rich in iron. In HT08 areas of Sud, 27 percent consume four or fewer food groups, and over 20 percent do not consume Vitamin A or iron-rich foods.

⁶⁶ Agricultural exports are dominated by mango, coffee, cocoa, and vetiver. The United States and Dominican Republic are the main trading partners (World Bank 2019). With respect to imports, the United States is a major trading partner for Haiti, supplying most of the rice imported and being the largest supplier of wheat, corn, sorghum, and millet. The U.S. is also the second major supplier of poultry (U.S. Department of Commerce 2019). While tree crops like coffee and cacao have decreased significantly in their share of exports, mangos have risen substantially. Still, imports of Haitian mangos to the US have declined. This is not because of a deterioration of production—which has held steady since 1990—but because of a major rise in US consumption of mangos, a demand met mostly by Mexico, Peru, Ecuador, Brazil, and Guatemala. Although 2015 was a record high season, Haiti exported only 5% more mangos in 2015 than in 2006. (Schwartz 2018).

⁶⁷ Enquête Nationale d’Urgence sur la Sécurité Alimentaire et Nutritionnelle

⁶⁸ CNSA 2019a. Enquête Nationale d’Urgence sur la Sécurité Alimentaire et Nutritionnelle

In Grand’Anse, 30 percent of the population in HT07 areas consume four or fewer food groups, and 17 percent do not consume vitamin A-rich foods. Sixty-three percent do not consume iron-rich foods. For HT08 areas, 49 percent consume four or fewer food groups, and approximately 30 percent do not consume Vitamin A- or iron-rich foods.⁶⁹

For this report, a non-representative sample of 77 households in Grand’Anse was asked about seasonality of their food consumption over the course of the year.⁷⁰ The results confirm that households in these departments regularly eat cereals, pulses, roots and tubers, and vegetable oil. Sorghum is generally not consumed. Other products, such as maize, meat, dairy, fish, fruits, and vegetables, are consumed regularly by a smaller number of households. Instead, many households consumed these products only in certain seasons when they became more available.

For instance, some households reported consuming maize primarily between June and September, harvest time for the crop. One in four households reported never consuming maize. Among those who consume roots and tubers in a seasonal manner, consumption takes place between April and September. For meats, milk, fish, fruits, and vegetables, reported seasonal consumption was concentrated in the June to September period. These periods coincide with the harvest time of many crops. Table 8 provides an overview of the specific products (or brands) consumed in the study areas.

Table 8. Foods or brands consumed in Grand’Anse

Product	Food or brands consumed
Rice	Bongu, Mega, Shelda, Shella, Tchako, Peyi
Pulses	Black bean, red bean, congo bean, Miami bean, butter bean
Maize	Maize with large grain, Saint Marc, Miami, Alberto, Peyi
Sorghum	Local sorghum
Roots and tubers and plantain/banana	Sweet potato, potato, beet, carrot, cassava, yuca, banana, lam (<i>veritable</i>), malanga
Meat	Goat, sheep, beef
Oil	Bongu, Alberto, Gourmet, Mazola
Flour	France, Bongu, cassava flour
Fruits	Pineapple, orange, cherry, melon, papaya, passion fruit, guava, mango, apricot, avocado, lemon
Vegetables	Cabbage, spinach, chayote, eggplant, cress, okra, other leafy vegetables (<i>liam panye</i>)

Source: Researchers’ own data.

As noted in Chapter 2, households access most of their food through market purchases in local markets. In both departments, women are in charge of food purchases. Additional information regarding the gendered division of labor within households is presented in Annex 2. Markets are accessed either

⁶⁹ CNSA 2019a

⁷⁰ Annex 1 provides information about the methodology for this study and the sample. Data was not collected in Sud Department.

by foot, moto-taxi, or other means of transportation (including boat). High food prices and limited income among survey respondents made accessing food a challenge for most.

Households surveyed were also asked about the types of foods provided to children and pregnant women. Rice, maize, roots and tubers, beans, milk, oil, fish/animal products, fruits, and vegetables were identified as the foods provided to both groups.

Other recent research in Grand'Anse and Sud has explored culturally based dietary restrictions of both children and women of reproductive age.⁷¹ The research found that cultural practices related to pregnancy and breastfeeding may result in women avoiding nutritionally rich foods such as some fruits and vegetables, certain types of beans, pork, fish, lobster, milk, some cereals, and beans.⁷² According to the cultural beliefs, depending on the time of consumption (pre-birth or postpartum), consuming these foods during pregnancy may cause harm to the fetus or result in a more difficult birth. Post-partum, it is believed that consumption of such foods may impact the mothers' health, the quality of breastmilk and the health of the baby⁷³. These beliefs vary with location, with restrictions such as reduced dietary diversity practiced by breastfeeding women more prevalent than restrictions practiced by pregnant women and often based on the baby's tolerance to such foods.

In a sample of more than 1,000 women in Grand'Anse and Sud, Arasimovicz (2019) notes that dietary diversity is larger in smaller households, households producing foods from different food groups, households where women have higher levels of education, households owning land and livestock, and households that include working mothers.

In relation to children, Constant-Edma (2019) reports that cultural practices in Sud influence foods given to infants and that children eat the same foods as adults in households. Limited awareness of children's nutritional needs, coupled with limited financial resources to diversify diets, contribute to the persistence of child malnutrition.

For more information on these recent pieces, interested readers should consult:

- Arasimowicz (2019),⁷⁴ a master's thesis titled "Analysis of the Dietary Taboos Affecting Dietary Diversity of Women in Reproductive Age in the South and Grand'Anse Departments of Haiti"
- Constant-Edma (2019), a doctoral dissertation⁷⁵ titled "Child Malnutrition in a Developing Country: A Persistent Challenge in Haiti"

Supplementary feeding in children under the age of five is not widespread. According to the 2017 DHS survey, care takers reported that 7.3 percent of children consumed an iron supplement in a seven-day recall period at the national level. Thirty percent of children under five consumed vitamin A supplements in a 6-month recall period. Only 1.6 percent of infants (under 24 months of age) received a food

⁷¹ Arasimovicz, 2019; Constant-Edma, 2019.

⁷² Examples are: mango, coconut, cassava, banana, grapefruit, lime, okra, watermelon, tomato, orange, cantaloupe, pineapple, chayote, mushrooms, okra, sugarcane, avocado, yam, onion, garlic, white beans, and cabbage.

⁷³ Some foods are believed to cause gas, diarrhea, bloating, hurt the intestines, create allergies, cause anemia, etc.

⁷⁴ https://papyrus.bib.umontreal.ca/xmlui/bitstream/handle/1866/23651/Arasimowicz_Sabrina_2019_memoire.pdf?sequence=2

⁷⁵ <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=8896&context=dissertations>

supplement. Table 9 provides an overview of these statistics for Grand'Anse and Sud, based on a seven-day recall period.

Table 9. Consumption of food supplements in children

Supplementation	Grand'Anse (%)	Sud (%)
Food supplement (children under 24 months of age)	1.3	3.6
Iron supplement	5.6	7.8
Vitamin A supplement	40.1	35.9

Source: IHE and ICF 2018.

Generally, Sud department performs above the national average in all indicators. Grand'Anse presents a lower use of iron supplements and supplements for infants.

Supply of food

As noted earlier, staple products in the Haitian food basket include rice, wheat flour, maize, sorghum, pulses (beans and peas), banana (plantain), tuber (yams, cassava or yucca, and sweet potato), and edible oil.⁷⁶ Agriculture is a key livelihood activity in the study areas, but household income derives from a variety of activities, including casual labor, sale of own production (crops, livestock, fish), and petty trade.

In normal years, the departments present a mix of surplus and deficit status across the different staples.⁷⁷ Grand'Anse is generally deficit on rice, maize, and sorghum but has a marketable surplus of tubers and pulses. Sud is generally deficit on rice and tubers but has marketable surplus in maize, sorghum, and pulses.⁷⁸ The availability of local products follows the seasonality of production, with the spring harvest (starting around August) the most relevant in terms of production volume.⁷⁹ Table 10 provides an overview of the availability of marketable surplus or deficit in local production of key staples for both departments during normal years and in 2019/20. It is important to emphasize that this information applies only at the department level. At the national level, Haiti is structurally deficit in cereals and pulses. Tuber production is generally sufficient to cover population needs, though imports of particular products (potato, yellow yam) do take place.⁸⁰ Annex 3 presents the commodity balance for rice, maize, and sorghum in both departments.

The marketing system in these departments is dynamic and competitive, characterized by a large number of participants along the supply chain. Local production is complemented by imports. Small-scale traders and female traders, known in Haiti as Madam Saras, are important figures in the food trade, playing an intermediary role between producers and consumers throughout the country. They store, process, and commercialize products to consumers or to larger traders, who then distribute the products in other areas of the country. Imported grain is usually captured by large processors (mainly in the Port-au-

⁷⁶ FEWS NET 2018.

⁷⁷ Assessment based on FEWS NET, 2018.

⁷⁸ FEWS NET 2018.

⁷⁹ FAO and WFP 2017.

⁸⁰ Latino and Musumeci 2016; FEWS NET 2018.

Prince area), who transform and pack the product and distribute it to these departments and nationally. At the local level, small-scale processors are available in market centers to provide milling services to consumers.

Table 10. Sufficiency level of the key staple foods during normal years and in 2019/20

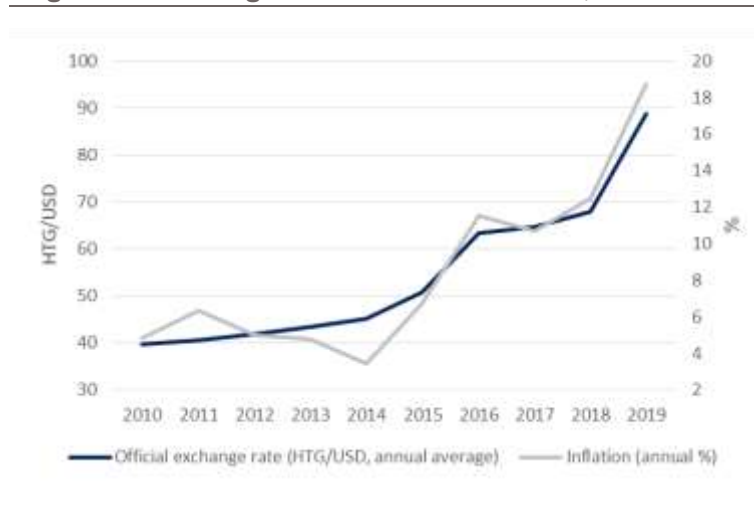
Commodity	Grand’Anse		Sud	
	Normal years	2019/20	Normal years	2019/20
Rice	Deficit	Deficit	Deficit	Deficit
Maize	Deficit, with some surplus areas	Surplus	Surplus	Deficit
Sorghum	Deficit	Deficit	Surplus	Surplus
Pulses (beans/peas)	Surplus	N/A*	Surplus	N/A
Tubers	Surplus	N/A	Deficit	N/A

*Not available.

Source: FEWS NET 2018; CNSA/FEWS NET 2020.

Over the past five years, staple food prices in the study area—and in the country, generally speaking—have increased considerably. Among the factors contributing to this are the limited performance of the agriculture sector and the impacts of climatic shocks on domestic production and trade. As introduced in an earlier section, Haiti experienced a series of unfavorable climatic conditions in the past four to five years, which resulted in reduced agricultural outputs and a higher reliance on imported foods.⁸¹

Figure 11. Exchange rate and annual inflation, 2010–2019



Source: World Bank, 2020b after International Monetary Fund’s International Financial Statistics.

Food imports account for more than 50 percent of domestic food consumption. In addition, structural and political instability, high levels of inflation, and price volatility in international markets contribute to exchange rate fluctuations, which further impact food supply.

Figure 11 presents the official exchange rate and annual inflation between 2010 and 2019. Annual inflation grew from five percent annually in 2010 to close to 19 percent in 2019. At the same time, the exchange rate doubled, from 40 to 89 HTG/USD.⁸² The similarities in the

⁸¹ FAO and WFP, 2017.

⁸² World Bank 2020b.

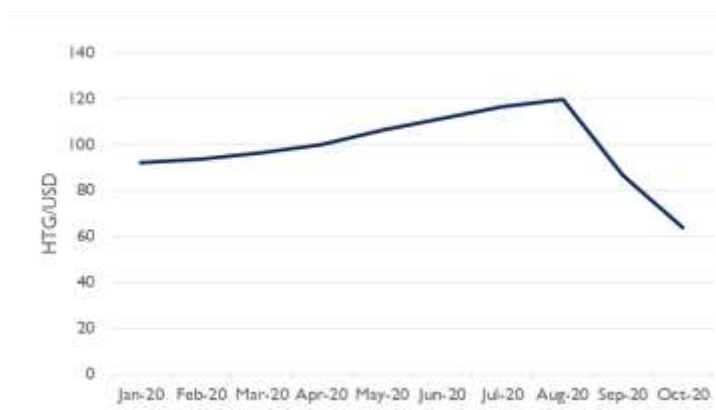
trends between these factors is unsurprising, given the high reliance on imported goods and the general instability observed in the country.

Historically, a broad variety of business transactions in the country have been conducted in U.S. dollars, given the instability of the gourde. The measure announced by the Ministry of Commerce and Industry to execute money transfers in gourdes became effective on October 1, 2020. The measure was received with opposition. But shortly after its implementation, the gourde appreciated, going from 119.7 HTG/USD in August 2020 to 63.9 HTG/USD in October (Figure 12). This may help explain the reduction in the cost of the basic food basket observed in Figure 13.

The cost of the basic food basket⁸³ has increased over the past years. In September 2020, a household of five individuals required 11,948 gourdes per month (2,128 gourdes per person) to purchase staple foods, an increase of 25 percent over the cost of the same basket in September 2019.⁸⁴ Figure 13 presents the evolution of the nominal cost of the basic food basket since 2016. In nominal terms, the cost of the basket doubled in almost five years. In October 2020, the cost of the food basket decreased. This has been attributed to the appreciation of the gourde and the reduction of the international price of rice.⁸⁵

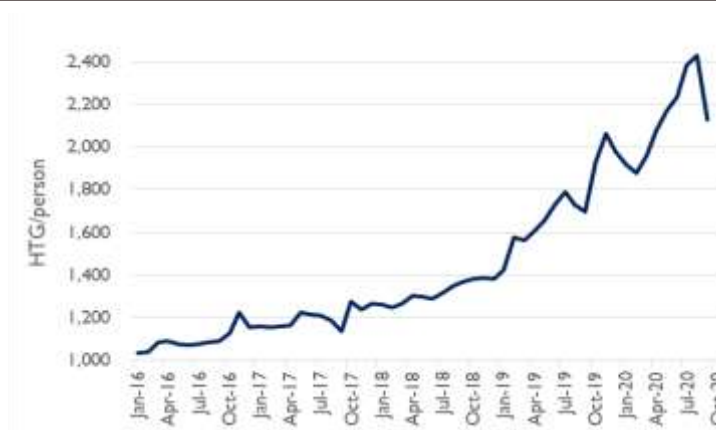
Focusing on the study area, retail prices for staple foods in markets in Grand'Anse (Jérémie market) and Sud (Les Cayes market) have increased notably over the past two years. This trend is not unique to markets in the study area. Prices in Jérémie and Les Cayes markets behave similarly to prices in other markets in the country and are considered to be integrated (i.e. follow a similar pattern). Prices are generally established by negotiation and vary

Figure 12. Monthly exchange rate, 2020



Source: Banque de la République d'Haiti 2020.

Figure 13. Cost of the basic food basket, 2016–2020



Sources: CNSA 2018; CNSA 2019; CNSA 2020.

⁸³ Recall that the food basket is composed of rice, wheat flour, maize, beans, sugar, and vegetable oil.

⁸⁴ CNSA 2020.

⁸⁵ CNSA 2020.

depending on the product's origin, quality, brand, location, and quantity purchased. The seasonality of production also influences prices. Prices of grains and pulses are typically expressed in "marmites", equivalent to about 6 lb. (or 2.7 kg).

A small sampling of 21 retail traders in Grand'Anse were approached in the framework of this activity. They were contacted during market days in different locations within the department. (Data collection was not feasible in Sud.⁸⁶) The vendors interviewed reported selling a combination of commodities, including rice, maize, and beans (mainly black, but also red, Miami, congo, and butter beans) both local and imported. Some traders also sold roots and tubers (sweet potato, cassava, beets, and yams), vegetables (cabbage, carrots, eggplant, and greens), and livestock. Across products and locations, traders anticipated a reduction of prices in the coming months, anticipation that might be informed by government control of the exchange rate. The challenges for the trading activity identified related to the lack of transport availability, high prices, political unrest (blockades), insecurity (armed gangs, theft), and limited supply. Traders also reported challenges in maintaining product stocks due to lack of adequate and sufficient storage.

Markets in times of crises

Despite the crises experienced from 2014 to 2017, a 2017 crop and food security assessment found that after three consecutive years of reduced domestic production, markets across the country had variable availability of local products but were well supplied with imported foods.⁸⁷ Further assessments made in the context of Hurricane Matthew⁸⁸ and a WFP/CNSA rapid market assessment in the context of COVID-19 came to similar conclusions: unless hard hit by disaster, markets bounce back, resuming operations with the same or similar frequency as before the crisis.⁸⁹ This indicates the marketing system in the country is generally capable of adjusting to changing conditions in local supply⁹⁰ to meet the consumption needs of the population. However, these assessments point out that physical accessibility to markets and to transport options have consistently been key factors affecting supply in locations that are more remote or heavily affected by disasters such as earthquakes, hurricanes, and floods.

In times of crises, local traders (particularly small-scale traders) face challenges to their market activities due to increasing product prices, limited access to finance, increases in transport costs, insecurity, reduced stocks, unfavorable exchange rates, and reduced consumer purchasing power.⁹¹ Amid the COVID-19 crisis, the WFP and CNSA study reported that by April 2020 consumer purchasing power was down, access to water, sanitation and hygiene was limited, financial capacity was reduced, and challenges accessing transport increased. Security and safety considerations are among the most important factors impacting market activities in southern Haiti. Despite these challenges, traders reported being able to respond to increased demand and to renew their stocks within a week. With

⁸⁶ Further methodological information is available in Annex I.

⁸⁷ FAO and WFP 2017.

⁸⁸ ACAPS 2016, CNSA et al 2016.

⁸⁹ CNSA et al 2016, FAO and WFP 2017, WFP and CNSA 2020.

⁹⁰ In both studies, locally produced cereals were less available than expected, while roots and tubers were available at a larger extent.

⁹¹ WFP and CNSA 2020.

respect to the study area, the WFP/CNSA assessment explored the situation in Cayes and Torbek (Sud) and Chambellan (Grand'Anse). The factors mentioned above are applicable to these markets.

For consumers, the studies report that having purchasing power (i.e., cash available) and higher prices were among the main factors impacting households' access to food. The crises experienced in the 2014–2017 period impacted household income-earning possibilities, which further affected access to education, agricultural inputs, livestock, and other productive assets. Households also used negative coping strategies such as reducing consumption, taking on debts, and selling animals and agricultural products. Lastly, households also diversified their income sources (operating moto-taxis or selling charcoal) and some members migrated to other areas or countries.⁹² The WFP and CNSA assessment further notes challenges in accessing food resulting from restrictions/measures related to COVID-19.

Price trends

The following sections provide commodity-specific information with respect to retail prices for maize, maize meal, rice, sorghum, beans, and vegetable oil. While some information offers insights about the national context, information specific to Grand'Anse and Sud is included.

Maize

Maize is the most commonly cultivated crop in Haiti and the second most important cereal in terms of domestic consumption. Per capita consumption is estimated at 20 kg/year. Maize is a common substitute for rice in household food consumption.⁹³

In 2019, domestic production of maize met only 58 percent of overall demand. Most maize is produced in the Artibonite, Ouest, and Centre departments. Maize production in Sud declined by more than 15 percent between 2018/19 and 2019/20. Local production in 2020 could meet only 92 percent of consumption needs in the department, a noticeable contrast with the general surplus status of the department. In Grand'Anse, maize production also declined. But the department remained self-sufficient.⁹⁴ Annex 3 presents the commodity balance for maize in both departments.

Maize imports declined from 2015 to 2018, before almost tripling in 2019 from 14,207 MT to 40,000 MT. Imports of maize were forecasted to decrease by 50 percent in the 2019/20 season and remain stable for 2020/21.⁹⁵

As noted earlier, information gathered from households in Grand'Anse suggests that the consumption of maize follows a seasonal pattern for many households. Preferred varieties include Saint Marc and the local maize (*peyi*), which residents of the department say they prefer over imported maize for its taste, nutritional, and cooking characteristics.⁹⁶ Households consume maize in both grain and maize meal.

⁹² FAO and WFP 2017.

⁹³ FEWS NET 2018.

⁹⁴ CNSA and FEWS NET, 2020

⁹⁵ FEWS NET 2019 ; Cledeo 2020.

⁹⁶ Broutin et al. 2017.

Maize grain (yellow)

Table 11 presents average annual retail prices of maize grain across the country from 2015 to 2020. Prices in the Jérémie markets in Grand’Anse varied widely over the period but were often in the high end of average price ranges. Prices in Cayes market in Sud were typically in the middle of the range of the average price across markets. Across the country, average prices increased notably from 2018 to 2019.

Table 11. Maize grain (yellow) average annual retail price, HTG/lb.

Market	2015	2016	2017	2018	2019	2020
Cap Haitien	12.5	12.5	12.5	12.7	28.5	39.0
Cayes	11.1	10.3	10.9	15.2	20.6	25.2
Fond-des-Negres	10.7	14.0	13.2	12.0	18.8	23.6
Gonaives	10.6	11.1	11.5	15.8	24.3	25.1
Hinche	8.6	10.9	9.6	10.3	17.8	16.8
Jacmel	14.5	14.2	13.6	16.6	22.8	31.1
Jérémie	15.4	14.0	21.5	15.5	18.1	28.6
Ouanaminthe	10.6	12.9	13.3	12.9	24.7	33.0
Port-au-Prince	8.8	13.2	12.3	15.0	22.5	24.8
Port-de-Paix	11.4	14.6	18.0	14.4	27.2	30.2

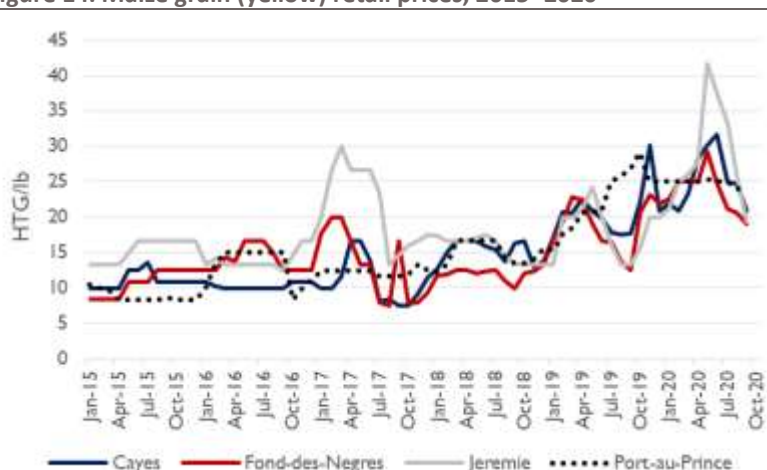
Source: Authors’ calculations based on FEWS NET price data.

Figure 14 presents price data for yellow maize grain in Jérémie and Cayes markets as well as for other reference markets for this area (Fond-des-Negres and Port-au-Prince, the nation’s capital city).

Prices in Jérémie tend to be higher than in Cayes. Prices in Cayes follow closely the pattern observed in Port-au-Prince and Fond-des-Negres prices. Prices in Jérémie follow the general trend but do present more variability and spikes.

Maize grain prices in the southern region display strong seasonal patterns (Figure 15). The analysis is performed using the moving-average seasonal

Figure 14. Maize grain (yellow) retail prices, 2015–2020

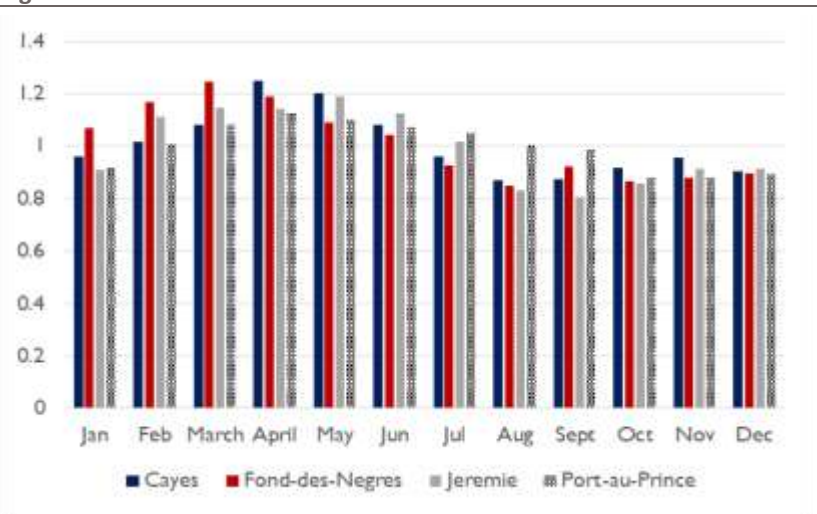


Source: Authors’ calculations based on FEWS NET price data.

index suggested by IFPRI.⁹⁷ Based on the analysis, prices in Jérémie exhibit more seasonal variability than in Cayes; however, in general, prices in both markets follow the same patterns. Prices are above their annual average between February and June, reaching their peak in March and April (the lean season). Prices reach their lowest value in the harvest months of July and August and then slowly rise in the latter part of the year.

Further analysis of market integration shows that maize grain prices exhibit similar trends between Cayes, Fond-des-Negres, and Port-au-Prince. As seen in Figure 14, prices in Jérémie behave slightly differently, suggesting that markets in Jérémie are less integrated. Prices in Cayes and Jérémie exhibit a similar evolution. The evolution in maize grain prices for the two markets in the study area does not appear to be significantly associated with that of the Port-au-Prince market, however. See results in Annex 4.

Figure 15. Seasonal variation



Source: Authors' calculations based on FEWS NET price data.

Maize meal

For maize meal, average retail prices in 2019 and 2020 were highest in Cap Haitien, Ouanaminthe, and Port-de-Paix. Prices in Jérémie and Cayes were among the lowest. Average retail prices in 2019 and 2020 were notably higher than in previous years (Table 12).

Table 12. Maize meal average annual retail prices, HTG/lb.

Market	2015	2016	2017	2018	2019	2020
Cap Haitien	16.1	19.0	15.3	16.9	32.4	44.8
Cayes	15.0	13.3	15.7	16.0	26.6	31.2
Fond-des-Negres	14.7	13.5	15.3	16.3	25.6	33.2
Gonaives	15.2	19.7	19.3	19.9	29.9	36.6
Hinche	14.8	17.2	13.9	17.8	27.4	29.5
Jacmel	15.3	17.2	17.7	18.8	28.2	33.9
Jérémie	16.6	13.2	15.1	16.2	17.9	28.8

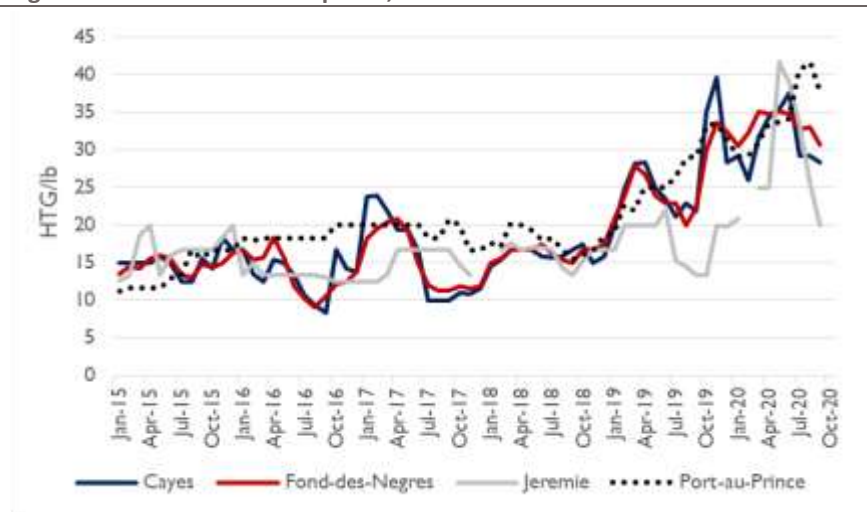
⁹⁷ <http://www.foodsecurityportal.org/seasonality-tool>

Market	2015	2016	2017	2018	2019	2020
Ouanaminthe	11.8	16.5	17.4	16.0	27.7	38.3
Port-au-Prince	13.9	18.7	19.2	17.8	26.8	34.5
Port-de-Paix	14.0	16.3	17.4	17.1	31.8	37.3

Source: Authors' calculations based on FEWS NET price data.

In Cayes, maize meal prices followed a similar trend as those in reference markets (Fond-des-Negres, Port-au-Prince) between 2015 and 2020. In 2019, prices across markets displayed a notable increase and different patterns with respect to previous years (Figure 16). As in the case of maize, prices in Jérémie exhibit a slightly different trend and tend to register lower levels.

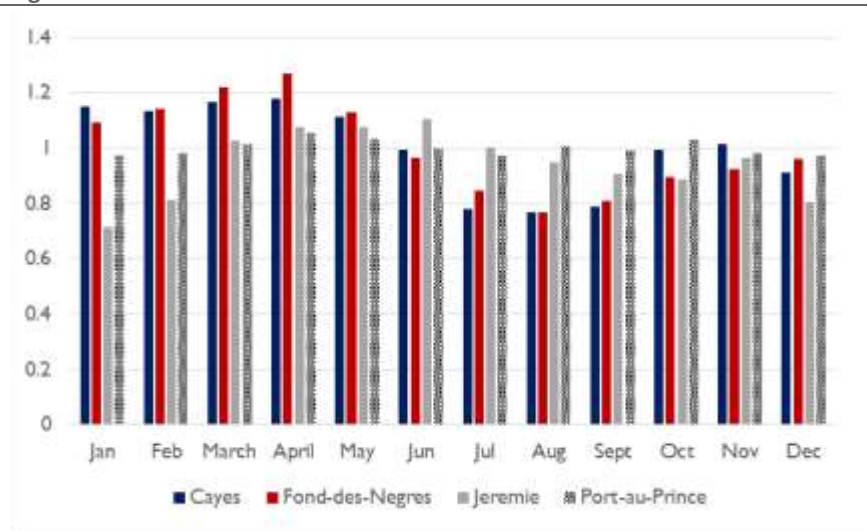
Figure 16. Maize meal retail prices, 2015–2020



Source: Authors' calculations based on FEWS NET price data.

Maize meal prices exhibit a strong seasonal pattern in Cayes but less so in Jérémie (Figure 17). Prices stay above the annual average in January through June in Cayes, seemingly rising to reach their peak in March/April, then fall to their lowest value in August, only to resume the rising pattern. In Jérémie, however, prices increase from January through June and then slowly decline the latter part of the year. The seasonal pattern in Cayes is similar to that observed in Fond-des-Negres.

Figure 17. Seasonal variation



Source: Authors' calculations based on FEWS NET price data.

Comparatively, however, prices in Port-au-Prince do not present strong seasonal patterns.

Similar to the patterns observed in the seasonality of this product, Cayes and Fond-des-Negres maize meal markets seem well integrated, as evidenced by the coefficient of correlation. Jérémie's maize meal market shows a weaker co-movement with either of the other markets considered.

Rice

Rice is the most consumed cereal in Haiti, with an estimated per capita consumption of 50 kg/per year. Rice is often preferred over other products, such as maize or tubers. Local rice is preferred over imported rice; however, the latter is more affordable.

In terms of production, rice is second to maize, with about five percent of the cultivated area at the national level (Van Vliet et al. 2016). Its production is mainly concentrated in the Artibonite and Nippes departments. Rice is also produced in Sud, but at low levels. Production is almost non-existent in Grand'Anse. Given its high demand as a staple food and limited production, about 80 percent of all rice consumed in the country is imported, mainly from the United States, Japan, and Vietnam (FEWS NET 2018). In the agricultural season 2019/2020, rice production was estimated at 132,738 MT, while consumption needs were estimated to be 589,140 MT.⁹⁸ Compared to the 2018/2019 agricultural season, rice production declined by 16 percent, while consumption increased by 14 percent.

Local production in Sud covers only approximately five percent of department needs, estimated to be 32,848 MT in 2020. Production in Grand'Anse covers less than one percent of department needs (approximately 24,300 MT). Both departments experience a deficit between rice production and needs.

The price of rice varies depending on origin (local or imported), location, brand, quality, and amount purchased. Average retail prices in 2019 and 2020 have been highest in Jacmel and Hinche markets. Prices in Jérémie and Cayes have been in the middle of the scale (Table 13).

Table 13. Milled rice average annual retail prices, HTG/lb.

Market	2015	2016	2017	2018	2019	2020
Cap Haitien	47.1	56.9	45.8	52.2	66.7	103.8
Cayes	59.2	64.4	59.2	67.6	82.4	106.9
Fond-des-Negres	29.5	47.4	49.5	53.8	71.7	105.3
Gonaives	50.0	50.0	50.0	56.6	68.5	81.3
Hinche	53.4	58.3	56.8	65.7	89.3	116.6
Jacmel	50.0	58.4	59.7	67.5	87.6	127.9
Jérémie	54.3	54.6	57.4	64.2	79.4	105.8
Ouanaminthe	43.4	70.0	70.0	70.0	71.7	80.5
Port-au-Prince	40.9	41.2	45.1	52.0	74.7	97.9

Source: Authors' calculations based on FEWS NET price data.

⁹⁸ Annex 3 presents the commodity balance rice in both departments.

Figure 18 presents the retail prices of local milled rice in Cayes and Jérémie markets. During 2020, prices in these markets exceeded 80 HTG/lb., soaring to almost 132 HTG/lb. in Cayes. Figure 20 presents retail prices for the imported brand “Mega” rice for Jérémie and the reference markets.⁹⁹ During 2020, Mega rice prices ranged between 40 HTG/lb. and 55 HTG/lb. in Jérémie and Fond-des-Negres markets. Generally, high-priced local varieties can be twice as expensive as imported rice. At the national level, prices are \ lowest in Port-au-Prince and Cap-Haitien, the main entry points for imported rice.

Rice prices show little variation during the year. This is particularly true for milled rice (Figure 21). This situation can be attributed to the high level of imports for the bulk of the rice supply, which ensures a regular supply and stable prices over time. Regarding markets’ integration, the evolution of milled rice prices in Cayes and Jérémie is significantly associated with those in Port-au-Prince. All markets are integrated with respect to Mega rice prices.

Figure 18. Milled rice retail prices, 2015–2020

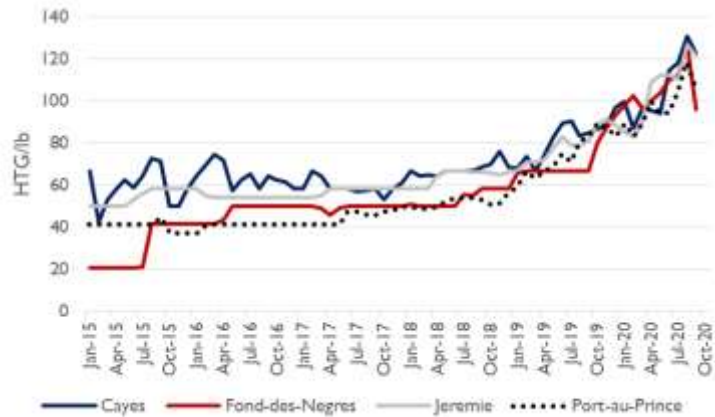


Figure 19. Seasonal variation

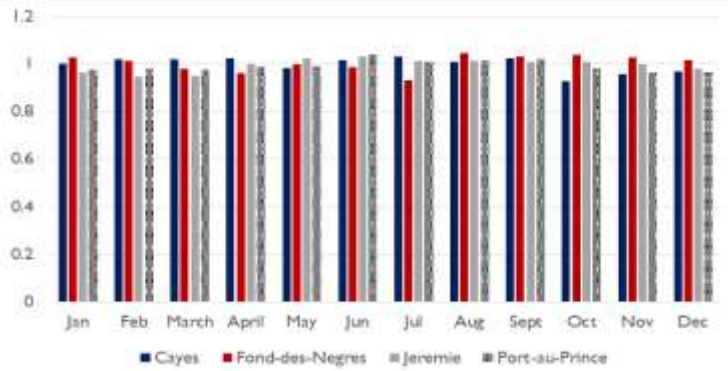


Figure 20. “Mega” rice retail prices, 2015–2020



Note: No price information was available for Cayes.

Source: Authors’ calculations based on FEWS NET price data.

⁹⁹ Mega is a brand of rice.

Sorghum

Sorghum, the third most important cereal produced in Haiti, is cultivated mainly in the departments of Artibonite and Centre departments. Its consumption is notably lower than for maize and rice, at a per capita annual average of 5kg.¹⁰⁰ For the 2019/2020 growing season, national sorghum production was estimated to be 104,499 MT, exceeding estimated sorghum needs of 90,176 MT. This means the country was 115.34 percent self-sufficient. However, this was a decrease of one percent

compared to the 2018/2019 agricultural seasonal production due to unfavorable weather in spring 2019. Production has been estimated to be 6.5 percent lower than the five-year average.¹⁰¹

Sud is self-sufficient in terms of sorghum production. During the last two years, local production satisfied the needs of the department. In contrast, sorghum is not produced in Grand'Anse, making it completely dependent on the market to satisfy its needs (see commodity balance in Annex 3). Table 14 provides an overview of sorghum retail prices in markets across the country.

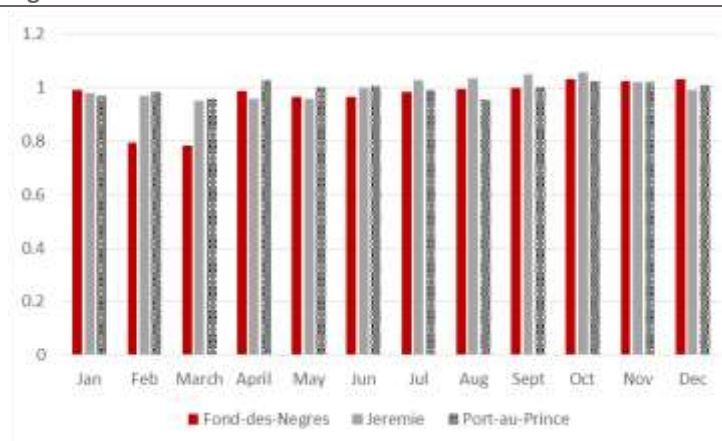
Table 14. Sorghum average annual retail price, HTG/lb.

Market	2015	2016	2017	2018	2019	2020
Cap Haitien	20.0	21.6	36.4	43.0	70.9	74.9
Cayes	20.9	20.4	34.0	45.5	51.0	62.9
Fond-des-Negres	15.7	17.2	28.6	39.9	44.9	53.9
Gonaives	17.8	20.1	29.0	41.1	55.6	57.9
Hinche	17.7	15.4	20.7			61.6
Jacmel	23.1	26.7	42.8	57.7	74.0	78.3
Jérémie	26.7	26.1	25.6	33.3	34.8	36.6
Port-au-Prince	19.3	19.6	29.9	43.6	53.8	68.7
Port-de-Paix	14.0	17.0	21.1	28.8	47.1	52.8

Note: very few price points were available for Ouanaminthe market along the series as well as Hinche in 2018 and 2019; therefore, no annual averages were calculated.

Source: Authors' calculations based on FEWS NET price data.

Figure 21. Seasonal variation



Note: No price information was available for Cayes.

Source: Authors' calculations based on FEWS NET price data.

¹⁰⁰ FEWS NET 2018.

¹⁰¹ FEWS NET 2019.

Figure 22 provides an overview of sorghum retail prices between 2015 and 2020 for Cayes and Jérémie markets. Prices in Jérémie display were unusually stable, while prices in Cayes and the reference markets follow a similar pattern. Interestingly, prices in Sud, which is self-sufficient, are higher than in other markets. Compared to maize and rice prices, sorghum prices experienced a less steep increase in 2019. The most notable price increases occurred during 2020.

Figure 22. Sorghum retail prices, 2015–2020



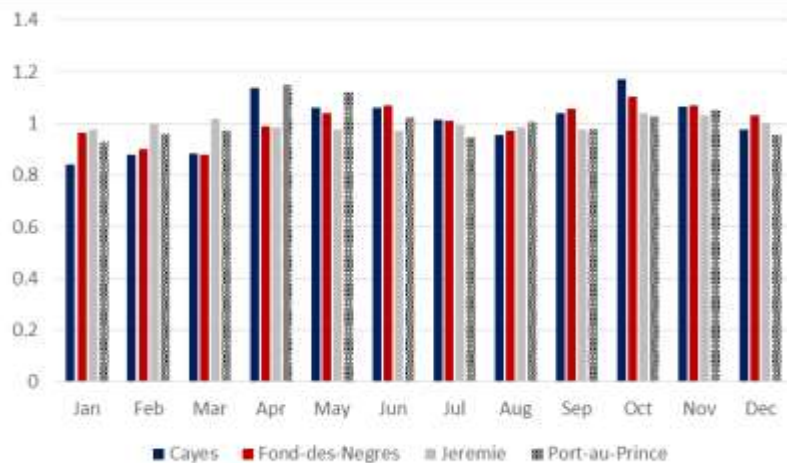
Source: Authors' calculations based on FEWS NET price data.

There is no intra-annual seasonal variation in the price of sorghum in Jérémie, as its price seems to show a succession of constant prices over extended periods. The price in Cayes, however, presents some seasonal features in addition to its increase over time. Sorghum shows lower than average values from January to March and peaks in April and October, while prices remain at their average value in the other months. This pattern is very similar to that of the Port-au-Prince sorghum market (Figure 23 **Error! Reference source not found.**).

With respect to market integration, the analysis indicates that sorghum prices in Cayes have the same evolution as in Fond-des-Negres and Port-au-Prince markets.

In recent years, sorghum has started to become a luxury consumer product. It is consumed in small quantities by the producer and is sought after by a specific type of consumer for its beneficial qualities for people with hypertension and diabetes. Most of the demand for sorghum is made by BRANAH, which uses it in the production of Malta beer. It was through the work of this company that sorghum production, which had almost disappeared, was resumed.

Figure 23. Seasonal variation



Source: Authors' calculations based on FEWS NET price data.

Pulses

The most consumed pulses in the country are beans and peas, produced and consumed in many varieties (black beans, red beans, white beans, pigeon peas, congo peas, small peas, groundnuts, etc.). In fact, the national dish is comprised of rice and beans. Beans are consumed in a variety of forms (pureed, cooked) and in combination with a cereal (rice, maize, sorghum, or tubers) practically every day. Pulses represent an important source of protein, particularly for lower-income households,¹⁰² and their annual consumption per capita is estimated at 25 kg. Black beans are the most produced and consumed, with production taking place across the country. In 2018, 153,992 MT of pulses were produced, of which 66 percent were beans.¹⁰³ Locally produced pulses are preferred over imported pulses.

At the national level, domestic production accounts for about 80 percent of total beans consumption. Imports, mainly as dry products, originate from the United States or Dominican Republic. Generally, both Grand'Anse and Sud are self-sufficient or surplus in beans production.¹⁰⁴

Table 15 provides an overview of the average annual retail prices of black beans across the country. Since 2019, prices of black beans have increased across the country. In the average to date for 2020, Grand'Anse and Sud register among the lowest price levels.

Table 15. Black beans average annual retail price, HTG/lb.

Market	2015	2016	2017	2018	2019	2020
Cap Haitien	56.5	56.7	57.6	55.6	70.3	100.4
Cayes	49.0	47.7	51.9	44.0	63.2	99.9
Fond-des-Negres	47.5	45.1	49.7	42.0	59.9	94.8
Gonaives	51.8	53.9	56.2	53.8	70.5	107.7
Hinche	49.4	52.4	51.6	52.3	69.2	110.3
Jacmel	53.3	58.8	54.0	57.5	66.7	103.0
Jérémie	47.7	46.1	53.9	43.6	57.2	94.7
Ouanaminthe	58.0	60.3	62.3	58.5	74.9	117.3
Port-au-Prince	45.4	47.7	50.7	47.0	59.7	100.4
Port-de-Paix	49.6	55.4	59.5	59.9	66.5	103.3

Source: Authors' calculations based on FEWS NET price data.

Given its widespread production, a large number of actors participate in the marketing system of pulses across the country. Producers interact with local traders (i.e., Madam Saras or other traders) who distribute the beans to local, regional, and national markets.

¹⁰² IRC et al. 2010.

¹⁰³ MARNDR 2018.

¹⁰⁴ FEWS NET 2018.

Figure 24 presents black bean retail prices in Cayes, Jérémie, and other reference markets between 2015 and 2020. During this period, beans prices in these markets displayed a very similar trend. In 2020, prices in Jérémie were slightly lower than in Cayes.

With respect to seasonal variation, black bean prices in Cayes seem to reach their lowest value in June, but otherwise, they present limited seasonal variation (Figure 25). The same behavior is observed for prices in Jérémie. The seasonal pattern observed in Cayes market follows closely that of Fond-des-Negres.

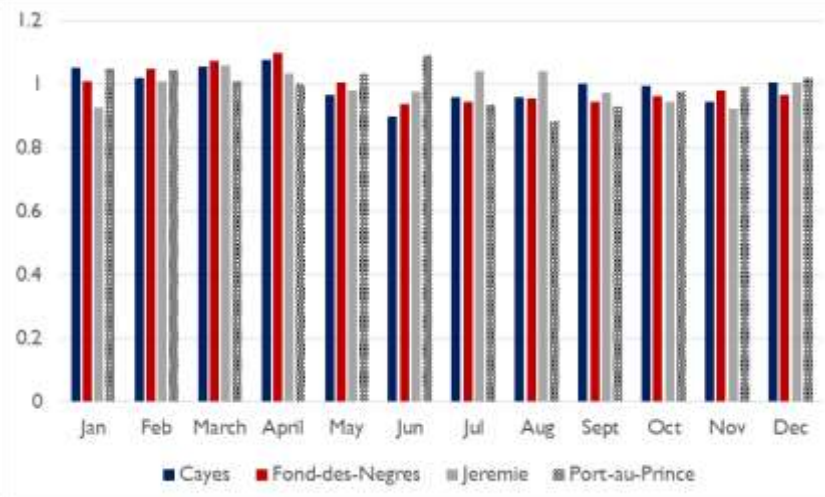
Black beans markets in the areas are also integrated, with prices in Cayes showing significant correlation with those in Jérémie. The two markets in the study area are significantly integrated with Fond-des-Negres, which is also located in a bean production area.

Figure 24. Black beans retail prices, 2015–2020



Source: Authors' calculations based on FEWS NET price data.

Figure 25. Seasonal variation



Source: Authors' calculations based on FEWS NET price data.

Tubers

A variety of tubers are produced and consumed across the country. Sweet potato is the most relevant, with a total production of 116,659 MT in 2018.¹⁰⁵ Grand'Anse stands among the main producers at the national level and generates marketable surplus. Some regions in Sud close to Grand'Anse also produce roots and tubers to a larger degree than elsewhere in the department.¹⁰⁶ Tubers are less preferred than other staples but are still widely consumed.

Tubers are typically sold by the pile or bucket, which makes price determination very subjective. Their annual consumption per person is estimated at 88 kg, \ about 25 kg in cereal equivalent.¹⁰⁷ No historic price data series were available for these products.

Vegetable oil

A wide variety of edible vegetable oils are consumed in Haiti, including products derived from palm, canola, soy bean, and corn oils, both pure and blended. Average annual consumption is estimated at 10 kg/person.¹⁰⁸

Vegetable oil is imported to Haiti as crude and refined oils processed domestically and sold under a variety of brands. Haiti's main suppliers of oil are Malaysia and Indonesia for palm oil, and the United States, Dominican Republic, and Argentina for soybean oil. Imports of oil products under different brands also take place. Vegetable oil is widely used to prepare a variety of foods and in the food processing sector.¹⁰⁹

While the domestic processing of vegetable oil is concentrated in a handful of processors, the distribution, wholesale, and retail of branded and unbranded oil (rebottled for retail sales) is characterized by a large number of participants who incorporate oil to a variety of commodities traded. Prices are influenced by processors and larger traders.

Table 16 presents average annual retail prices of vegetable oil across the country. As with other products, prices rose sharply in 2019 and 2020, but prices were similar across the country. In 2020, Cayes market registered the highest average vegetable oil price in the country. Prices in Jérémie were similar to prices in a number of markets in the country.

¹⁰⁵ MARNDR 2018.

¹⁰⁶ FEWS NET 2018.

¹⁰⁷ FEWS NET 2018.

¹⁰⁸ FEWS NET 2018.

¹⁰⁹ FEWS NET 2018.

Table 16. Vegetable oil average annual retail price, HTG/lit.

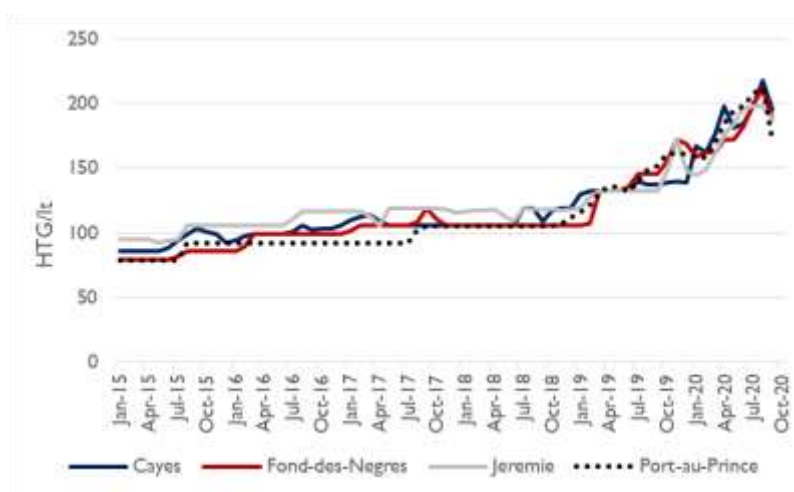
Market	2015	2016	2017	2018	2019	2020
Cap Haitien	92.5	99.3	98.2	107.9	145.9	173.6
Cayes	92.3	100.9	107.7	111.5	135.4	187.2
Fond-des-Negres	82.3	97.3	107.3	105.8	140.0	178.8
Gonaives	86.3	93.3	105.0	104.6	139.2	170.9
Hinche	82.1	90.0	96.0	102.4	137.0	167.0
Jacmel	81.9	106.0	105.8	113.9	144.7	177.1
Jérémie	99.4	110.7	116.7	116.9	136.9	177.6
Ouanaminthe	83.9	100.6	110.2	106.2	141.1	176.1
Port-au-Prince	84.8	92.6	97.9	106.5	141.9	183.9
Port-de-Paix	92.2	96.2	112.0	115.5	143.5	177.7

Source: Authors' calculations based on FEWS NET price data.

Figure 26 presents vegetable oil prices in Cayes, Jérémie, and other reference markets. Prices across markets follow similar trends. Cayes tends to register lower prices.

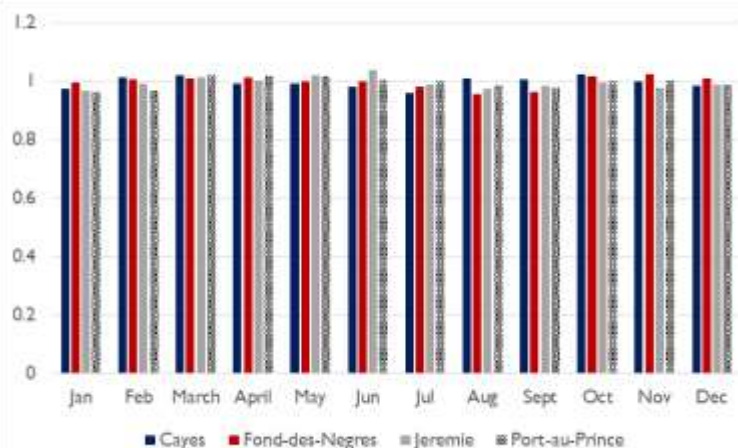
The seasonality index reveals that the price of vegetable oil remains close to its average on an annual basis (Figure 27). For a processed product with a regular production schedule, this result is unsurprising.

Figure 26. Vegetable oil retail prices, 2015–2020



Source: Authors' calculations based on FEWS NET price data.

Figure 27. Seasonal variation



Source: Authors' calculations based on FEWS NET price data.

Livestock

Cattle, swine, sheep, and goats are the main livestock species produced in Haiti. By the end of 2018, the livestock population was estimated at 3,032,972 animals, of which 50 percent were goats. Chicken were the main poultry raised. Sud and Grand'Anse play an important role in sheep production. Sud is also among the top producers of cattle (Table 17).

Table 17. Distribution of livestock by types and across departments

Department	Cattle (%)	Swine (%)	Sheep (%)	Goat (%)	Chicken (%)
Ouest	22	21	5	21	18
Artibonite	12	28	1	17	20
Nord-Ouest	6	13	28	16	13
Nippes	4	4	9	4	3
Centre	14	10	1	12	15
Sud-Est	10	8	12	9	10
Nord	6	3	1	3	3
Sud	12	6	26	5	6
Nord-Est	9	3	1	4	4
Grand'Anse	5	4	15	8	7
Total	606,309 (100%)	688,119 (100%)	236,885 (100%)	1,501,659 (100%)	4,535,525 (100%)

Source: MARNDR 2018.

No historic price data series were available for livestock.

4. Food assistance context in southern Haiti

Food assistance needs in southern Haiti

The food security situation throughout Haiti and particularly in the southern departments poses significant challenges for a substantial proportion of the population. In November 2019, a group of NGOs and CNSA issued a warning of significant deterioration in food security across the country. Prior to the COVID-19 pandemic, they forecasted the number of people requiring emergency food assistance would increase to 4.10 million people, or 40 percent of the population, by June 2020. The drivers of this elevated scale of crisis have been detailed above—rising commodity prices, drought, socio-political unrest, and deteriorating security conditions.¹¹⁰

These projections have been realized over the course of 2020. In December 2020, the Haiti Food Security Cluster estimated 4.1 million people were in IPC Phase 3+ and in need of emergency food assistance. In Grand’Anse, 99,600 persons were targeted to receive food assistance and 84 percent of them have, in fact, received assistance by humanitarian agencies. In Sud, just 59 percent of the targeted 67,700 people in need of emergency food assistance are benefiting from humanitarian aid. As of December, 2020, the greatest number of people needing assistance but not being reached in Grand’Anse were in Jérémie and Pestel. In Sud, the commune of Aquin has the largest number of beneficiaries awaiting assistance.¹¹¹

Food and nutrition assistance

As part of broader social safety net programs, the Government of Haiti collaborates with donors to ensure the poor can meet their basic food security and nutrition needs. However, Haiti still relies heavily on the support of donors and partners.¹¹² A number of organizations implement food and nutrition assistance programs in the departments that are the subject of this study. But WFP is one of the main implementers in the emergency and non-emergency assistance at the national level.

Examples of previous program activities in the region (emergency or development) include:

- Food for Education and Child Nutrition Program (2016–2019), implemented in Grand’Anse along with other departments.
- Emergency and recovery response to Hurricane Matthew (2016–2017)
- Emergency response and recovery to drought (2016)

¹¹⁰ CNSA 2019c.

¹¹¹ Food Security Cluster 2020a.

¹¹² FAO and WFP 2017.

These programs contain a variety of components, including awareness-raising on hygiene practices, water distribution, capacity-building of local officials, provision of meals, procurement of fresh foods from local farmers, livelihoods stabilization, construction and/or rehabilitation of community assets, and support of access to agricultural input markets.¹¹³ The Kore Lavi social protection project introduced earlier provides electronic food vouchers to 18,200 vulnerable households and health and nutrition support to 25,000 households¹¹⁴.

According to the food security cluster, 38 organizations are active in the 10 departments and 89 communes of Haiti, with 18 engaged in emergency food assistance and 34 in agriculture, livestock, and resilience activities. In Grand’Anse, the communes of Les Irois, Anse d’Hainault, Dame Marie, and Beaumont have the highest density of food security actors, with more than five organizations present in each commune. In Sud, organizations are concentrated in Torbeck, Camp Perrin, Coteaux, Les Anglais, and Chardonnières.¹¹⁵ The specific organizations in each commune as of November 2020 are listed in Table 18.

Table 18. Food security implementers in southern Haiti (November 2020)

Department	Commune	Active Organizations	Areas of Focus
Grand’Anse	Abricots	CARE	Emergency food assistance
		HEKS/EPER	Community resilience
		FAO	Agricultural production support, Support to the farming/fishing industry, Agricultural market gardening or agricultural coop
	A.d’Hainault	CARE	Emergency food assistance
		SI	
		CECI/AAI	Agricultural production support
		ACTED/ACF/SI/AV/SI/EDM	Agricultural market gardening or agricultural coop
		FAO	Agricultural production support, Support to the farming/fishing industry, Agricultural market gardening or agricultural coop
		CARE	Emergency food assistance, Agricultural production support, Agricultural market gardening or agricultural coop
	Beaumont	CECI/AAI	Emergency food assistance
		WFP/REMODEL	

¹¹³ Additional information is available in Viceisza et al (2020) on these and other development programs in these departments.

¹¹⁴ WFP 2017.

¹¹⁵ Food Security Cluster 2020b.

Department	Commune	Active Organizations	Areas of Focus
		HEKS/EPER	Agricultural market gardening or agricultural coop
		CARE WFP/REMODEL	Emergency food assistance
	Bonbon	FAO	Agricultural production support, Support to the farming/fishing industry, Agricultural market gardening or agricultural coop
	Chambellan	WFP/REMODEL	Emergency food assistance
		CARE WFP/REMODEL	Emergency food assistance
		SI	Emergency food assistance, Community resilience
	Dame Marie	CECI/AAI	Agricultural production support
		FAO	Agricultural production support, Support to the farming/fishing industry, Agricultural market gardening or agricultural coop
		HEKS/EPER	Community resilience
		CARE	Emergency food assistance, Agricultural production support, Agricultural market gardening or agricultural coop
	Jérémie	DIAKONIE	Agriculture production support
		HEKS/EPER	Community resilience, Agricultural market gardening or agricultural coop
		FAO	Community resilience, Agricultural market gardening or agricultural coop
		CARE	Emergency food assistance
	Le Irois	SI	Emergency food assistance, Community resilience
		FAO	Support to agricultural production
		ACTED/ACF/SI	Agricultural market gardening or agricultural coop
	Moron	WFP/REMODEL	Emergency food assistance
		WHAKS/EPER	Community resilience
		ACTION AID	Emergency food assistance, Support to the farming/fishing industry
	Roseaux	CARE/ACTION AID DIAKONIE	Agricultural production support

Department	Commune	Active Organizations	Areas of Focus
Sud		HEKS/EPER	Community resilience, Agricultural market gardening or agricultural coop
	Pestel	CECI/AAI	Agricultural production support
	Aquin	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	Arniquet	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	Port Salut	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	R. à Bateaux	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
		CRS	Emergency food assistance
	C.Perrin	DIAKONIE	Emergency food assistance
		MERCY CORPS	Agricultural production support
		ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	Chantal	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	S. J. du Sud	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
		WFP/AVSI	Community resilience
	S. L. du Sud	DIAKONIE	Emergency food assistance
	Chardonnières	CRN/CRH	Agricultural production support, Community resilience
		ACTED/AVSE/EDM	Agricultural market gardening or agricultural coop
		CRS	Emergency food assistance
		MOJDDA	
	Coteaux	ACTED/AVSE/EDM	Agricultural market gardening or agricultural coop
		CRS	Emergency food assistance
		WFP/AVSI	Community resilience
	Tiburon	CRS	Emergency food assistance
		ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	Torbeck	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
DIAKONIE		Emergency food assistance	

Department	Commune	Active Organizations	Areas of Focus
		WFP/AVSI	Community resilience
		AVSI	Agricultural production support
		CRN/CRH	Community resilience
	Les Anglais	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
		CRS	Emergency food assistance
		CRS	Community resilience
	Les Cayes	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	Maniche	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
		ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
	P.à Piment	ACTED/AVSI/EDM	Agricultural market gardening or agricultural coop
		CRS	Emergency food assistance

Key: “_/_/_”: Means a collaboration between the organizations

Table 19 provides an overview of other organizations implementing diverse development activities in Grand’Anse and Sud.

Table 19. Implementers of other development activities in southern Haiti

Department	Commune	Active Organizations	Program	Areas of Focus
Sud	Camp Perrin	Papyrus S.A.	MAIS MOULIN	Support of maize farmers’ market opportunities and local investment
	Chantal	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Chardonnières	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Coteaux	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
		Fonkoze*	Chemin Lavi Miyo (CLM)	Livelihoods protection and promotion for women
	Tiburou	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Torbeck	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers

Department	Commune	Active Organizations	Program	Areas of Focus
		Papyrus S.A.	MAIS MOULIN	Support of maize farmers' market opportunities and local investment
	Les Anglais	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Les Cayes	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
		Papyrus S.A.	MAIS MOULIN	Support of maize farmers' market opportunities and local investment
		Fonkoze	Chemin Lavi Miyo (CLM)	Livelihoods protection and promotion for women
	Port-à-Piment	MARNDR/IFAD	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Sud	WFP		Disaster risk reduction (rehabilitating irrigation canals)
	Sud	WFP	Food Assistance for Assets (FFA)	Productive agricultural asset creation
	Sud	AVSF		Restoring agricultural production (support to smallholders)
Grand'Anse	Abricots	Alliance agricole internationale & Développement international Desjardins	AVETI	Climate adaptation and economic development for cocoa and yam farmers
	Anse d'Hainault	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Beaumont	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
		Alliance agricole internationale & Développement international Desjardins	AVETI	Climate adaptation and economic development for cocoa and yam farmers
		Fonkoze	Chemin Lavi Miyo (CLM)	Livelihoods protection and promotion for women

Department	Commune	Active Organizations	Program	Areas of Focus
	Chambellan	Alliance agricole internationale & Développement international Desjardins	AVETI	Climate adaptation and economic development for cocoa and yam farmers
	Dame Marie	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Jeremie	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
		Fonkoze	Chemin Lavi Miyo (CLM)	Livelihoods protection and promotion for women
	Moron	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
		Alliance agricole internationale & Développement international Desjardins	AVETI	Climate adaptation and economic development for cocoa and yam farmers
	Roseaux	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Pestel	MARNDR/IDB/GA FSP	PITAG	Supporting agricultural productivity and technical assistance to farmers
	Sud	WFP/ASVI	(Through CERF funding)	Access to nutritious food for households with SAM and MAM
	18 communes between Grande Anse and Nippes	WFP		Prevention of acute malnutrition
	Sud	AVSF		Restoring agricultural production (support to smallholders)

* The locations identified for Fonkoze represent the locations of programming branches. However, activities and beneficiaries span to other locations.

Transfer Amounts in Ongoing Programming

As previously mentioned, stakeholders in Haiti gained significant experience in cash-based transfer through the response to Hurricane Matthew in 2016. OCHA and UNDP issued multi-purpose cash grants in Sud and Grand'Anse, for example, based on 2016 minimum expenditure basket calculations. Using 2012 Enquête sur les Conditions de Vie des Ménages après Séisme (ECVMAS) data on expenditures and income, UNDP/OCHA estimated a minimum expenditure basket of 1,712 HTG per person per month. From this value, the percentage value paid in rent (4.6%) and that could come via transfer from other households (18.2%), to reach a total proposed per capita monthly transfer value of 1,322 HTG. Revisions were made to this figure, however, based on household size for efficiency. The final transfer value then for households between 1 – 3 persons was \$40 per month, \$100 monthly for households with 4 – 6 persons, and \$160 USD for those with 7 or more persons.¹¹⁶ CRS found challenges with the centralized decision making process for cash transfer value after Matthew. Since this process for setting minimum expenditure baskets is based in the capital, it was removed from the dynamic emergency context in the south.¹¹⁷

In May 2020, CNSA reported an official monthly food basket value of \$98, \$110 for the improved food basket, and \$215 for the rural minimum expenditure basket. The Haiti Cash Working Group made updates to estimates for current cash programming in the country, estimating an average of \$65 per transfer for multiple use cash transfers currently provided by humanitarian actors, and on average these transfers are provided three times for a total value of \$195. In the context of COVID-19, the government initiated a program for 1.5 million households to receive a one-time transfer of 3,072 (approximately \$27). It is unclear how many households have been reached at this point in time.¹¹⁸

In response to the ongoing food security crisis in Haiti, FAO and Belgium launched a program through the Special Fund for Emergency and Recovery Activities (SFERA) to promote access to safety nets in several departments throughout the country. Activities focused on expanding access to agricultural inputs are being supplemented by unconditional and unrestricted cash transfers of \$96.1, which FAO calculate to be the value of the monthly food basket for a household of five in the spring of 2020. This program is complemented by seed distributions in Nord-Est, Nord-Ouest, Nippes and Grand'Anse to a total of 9,900 households (49,000 people) facing severe acute food insecurity. These households received 134 MT of cereal (rice and maize) and pulse (Lima bean, groundnut and pigeon pea) seeds.¹¹⁹

In southern Haiti, USAID and WFP have supported food assistance efforts in preparation for the 2020 hurricane season. From March to June 2020, WFP completed distributions to approximately 121,610 households in Grand'Anse, Nippes, Ouest, and Artibonite. Each household received 50kg of rice, 12.5kg of beans, and 9.2 pounds of cooking oil, a total of approximately 2,730 MT of aid.¹²⁰

¹¹⁶ Diaz 2019

¹¹⁷ CRS 2017

¹¹⁸ Magheru 2020

¹¹⁹ FAO 2020.

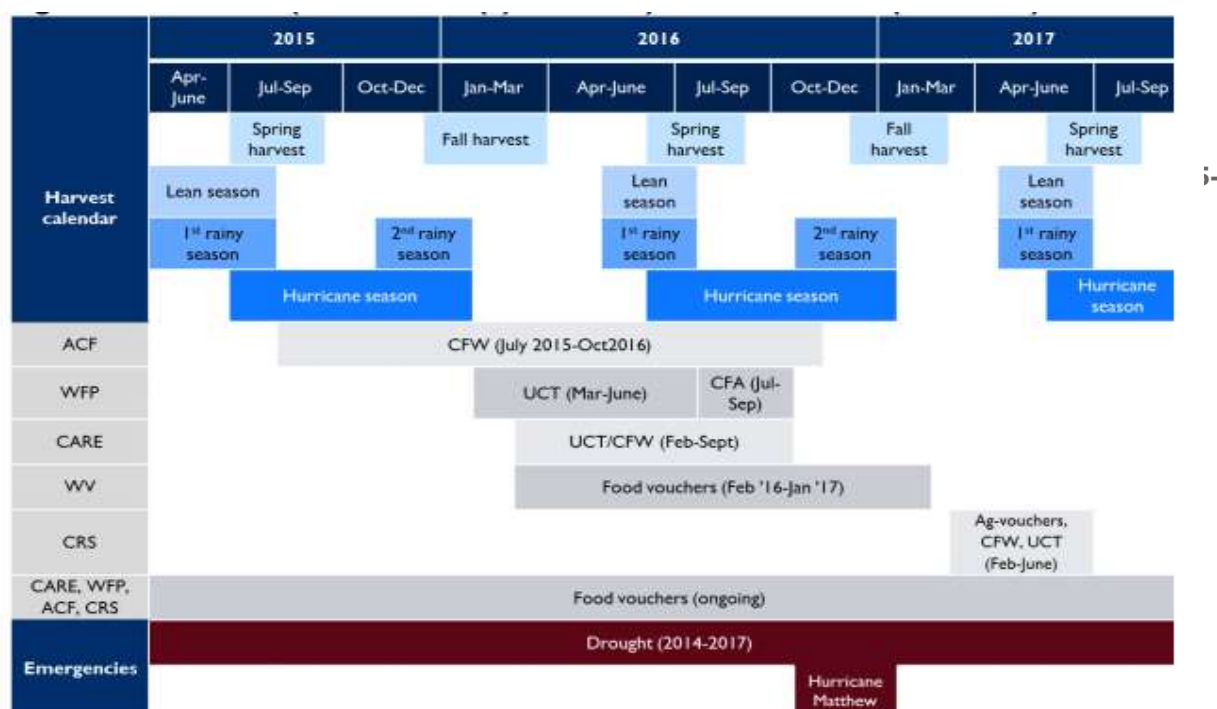
¹²⁰ U.S. Embassy in Haiti 2020.

Market-based food assistance programming

Over the past 10 years, emergency and non-emergency food assistance to Haiti has shifted from primarily in-kind and voucher-based assistance to heavily cash-focused aid, with some reliance on vouchers for targeted nutrition or market objectives.¹²¹ Over the past several years, implementing partners and donors have leveraged new evidence and data on unconditional cash transfers and targeted in-kind and voucher assistance to meet the humanitarian needs of Haitians in response to both emergencies and chronic poverty and hunger. In its review of the Bureau for Humanitarian Assistance (BHA) (formerly named Food for Peace (FFP)) interventions over the past several years, TANGO International generated the illustrative calendar of FFP-funded Emergency Food Security Project (EFSP) and 202(e)-enhanced activities in Haiti 2015–2017 shown in Figure 28.

As is clear in this illustrative calendar, BHA and other implementers rely on mixed, sequenced, and layered modalities to approach the hazardous and complex challenges of the Haitian context. They also plan assistance based around the seasonal calendar. WFP just began a new Country Strategic Plan (2019–2023) in July 2019. This five-year strategy includes strategic objectives focused on emergency response, nutrition-sensitive safety nets, smallholder livelihoods, and building resilience through food or cash for asset programs. There is also a strong capacity-building component, as mentioned earlier.¹²²

Source: Extracted from Cuellar and Mock 2018.



Source: IP project documentation.

¹²¹ Cuellar and Mock 2018.

¹²² WFP 2019.

With FFP funding, WFP is currently providing cash transfers to 26,500 households across Haiti, including Sud and Grand'Anse, as well as asset creation/food for assets in both northern and southern Haiti. CRS is providing conditional cash transfers to 26,500 households in Sud department, in exchange for income-generating and nutrition education activities.¹²³

Since Hurricane Matthew, and in line with the national Nutrition Policy, humanitarian agencies are now taking a more holistic approach to food assistance, including nutrition-sensitive programming, as well as resilience.¹²⁴ Notably, in 2018 WFP supported 16,500 people with disaster risk reduction activities to build resilience to future shocks.

Emergency assistance

As detailed in earlier sections, Haiti is vulnerable to a wide variety of shocks and stressors resulting from environmental, political, and economic crises. In the past several years, Hurricane Matthew in 2016 has been the most significant. Before, households were struggling to recover from several years of drought exacerbated by the 2015 El Niño phenomenon, the 2010 earthquake, and the cholera outbreak immediately afterward. The Hurricane Matthew emergency prompted a large increase in the number of food assistance actors providing support, particularly in Sud and Grand'Anse.

On October 6, 2016, Hurricane Matthew hit Haiti and left more than 1.4 million people across all departments in the north, west, and south in need of emergency assistance, with Sud and Grand'Anse the two most affected areas. In response, government and humanitarian agencies provided food assistance across hardest hit areas, initially mostly through in-kind food support. Two months after the hurricane hit, in-kind food support was supplemented with cash and vouchers.¹²⁵ Notably, WFP switched its interventions to cash transfers where possible but continued with in-kind general food distributions in some harder-to-reach areas of Sud and Grand'Anse¹²⁶. Through its partner CARE, WFP provided 800,000 people with either food or cash in response to the emergency. Pre-positioned stocks and standby contracts made it possible to start food distributions immediately. Cash assistance lagged. Many agencies were inexperienced in providing such assistance, and lacked pre-positioned arrangements with financial service providers for the delivery of transfers.

Provision of food and nutrition support: The national social protection project Kore Lavi, which provided nutrition sensitive safety nets supported by WFP, was scaled up in response to Hurricane Matthew. Through UNICEF, MAST also implemented a SMART survey to evaluate the nutrition situation in hurricane-affected departments.

Logistics and storage: Physical access was a major issue during Hurricane Matthew, with 60 percent of roads in Sud damaged.¹²⁷ In the first few weeks following the disaster, access was only possible by air, and United States' military helicopters were used to deliver food distributions. Storage capacities among agencies in Les Cayes and Jérémie were limited, severely hampering the logistics chain. In response, WFP provided storage in affected areas across Sud and Grand'Anse for 35 organizations and delivered

¹²³ USAID 2020b.

¹²⁴ Grünewald and Schenkenberg 2017.

¹²⁵ Mercy Corps 2018.

¹²⁶ WFP 2017.

¹²⁷ ACAPS 2016.

food relief on behalf of nearly 50 organizations.¹²⁸ It also positioned 17 off-road trucks in Les Cayes and Jérémie to support inter-agency distributions.¹²⁹

Use of cash transfers: While market-based food assistance (cash and vouchers) has been implemented in Haiti in response to emergencies since the 2010 earthquake, they were utilized on a larger scale and with higher frequency after Hurricane Matthew.¹³⁰ In response to COVID-19, the Government of Haiti provided assistance to over 22,000 beneficiaries through mobile payments.

According to Mercy Corps' 2018 Review of Cash-Based Interventions during Hurricane Matthew, 10 key implementing agencies provided food assistance through either cash transfers or vouchers. The Haiti Cash Working Group, led by WFP and co-led by Mercy Corps and MAST, was also reactivated in 2017 to coordinate cash-based programming in light of the hurricane response and had an estimated active 23 members at the time. Unlike with food sector coordination (which saw CNSA stepping up through the Food Security Cluster), government agencies did not take a strong leadership role in cash coordination due to limited understanding and experience of the modality in emergencies (they were previously only familiar with social protection). The Real Time Evaluation of Hurricane Matthew (Grünwald 2017) found the role of DPC—responsible for coordination of disaster response activities and risk management—also needed strengthening. Despite a range of challenges and lack of experience in cash for many agencies, results of food assistance during the response showed only 55 percent of those recipients had acceptable food consumption scores after assistance, compared to 75 percent of cash recipients.¹³¹

Use of vouchers: Overall during Hurricane Matthew, vouchers were considered less feasible by humanitarian agencies than cash transfers and, where used, were mostly paper rather than electronic.¹³² However, in Sud and Grand'Anse, CRS implemented a combination of both cash and vouchers and found positive outcomes, in particular on local markets.

Box I. Lessons from Hurricane Matthew Emergency Response

Donors commissioned an independent real-time evaluation (RTE), in consultation with agencies, during the initial weeks of the humanitarian response.¹³³ The review was conducted in Sud and Grand'Anse, as well as Port-au-Prince, to generate reflections and learning for future large-scale rapid response in Haiti and to propose adjustments to the immediate ongoing response.

Key takeaways in relation to food assistance included:

Insecurity: This was reported to be a major challenge during emergency food distributions, with unreliable truck drivers and impatient communities causing disruptions. In the early days, police heads of mission and the United Nations Stabilisation Mission in Haiti had to be actively engaged in security for food convoys, and negotiations were lengthy.

¹²⁸ WFP 2016.

¹²⁹ Grünwald and Schenkenberg 2017.

¹³⁰ Ward 2018.i

¹³¹ WFP 2017.

¹³² Mercy Corps 2018.

¹³³ Grünwald and Schenkenberg 2017.

Last mile delivery: This was particularly challenging in the remote context of Sud and Grand'Anse. Helicopters delivered large rations packaged of 50kg each to distribution sites, leaving many recipients reporting difficulties carrying food items home.

Key lessons and recommendations regarding emergency response from Hurricane Matthew:

Pre-positioning and standby contracts: Pre-existing ties to the private sector for local and regional purchases was essential for Hurricane Matthew emergency response, to enable quick availability. As a result, in 2017 WFP introduced its current food modality based on standby contracts with suppliers who can commit to deliver within a short lead in time for disaster response.¹³⁴

Increased community engagement: Investing in better community engagement was a key factor for improving security for food convoys and distributions. This should be factored into future distributions, particularly after rapid onset emergencies.

Coordination for transport means and access points: During natural disasters, agencies managing food relief stocks and pipelines are encouraged to be transparent in relation to distribution work, augmenting and diversifying transport means and access points between actors where possible.

Logistics pre-disaster arrangements: These should be set up with the Government to ensure both small and heavy equipment is on standby for future disasters. These can be set up with private actors, which would be less costly than the MCDA assets used for Hurricane Matthew.

For lessons on cash-based interventions during Hurricane Matthew, see Box 3.

Social protection and vulnerability targeting

The National Policy for Social Protection and Promotion (PNPPS) provides the framework for social protection in Haiti and the role of MAST. The PNPPS is the framework for food assistance safety nets, particularly regarding the use of cash and vouchers, but it requires further capacity development to ensure interventions are effective and efficient.¹³⁵

WFP partners with USAID, CARE, World Vision, and ACF to build the capacity of MAST to identify and support vulnerable people. This includes Kore Lavi, the food voucher safety net, which has created a national information system within MAST (SIMAST)¹³⁶. SIMAST includes a vulnerability database registering a vast amount of household data¹³⁷ and currently registers 420,000 people and 52 communes. It aims to cover 510,000, or 25 percent of the population, by the end of 2021. SIMAST uses a national vulnerability index with six categories of indicators (a total of 21 indicators) and centralizes information on a scale approach (from most to less vulnerable). Moving forward, SIMAST will continue its efforts to

¹³⁴ WFP 2017.

¹³⁵ OCHA 2020.

¹³⁶ Système d'Information du Ministère des Affaires Sociales et du Travail (SIMAST) / Information System of the Ministry of Social Affairs and Labour

¹³⁷ WFP 2017.

harmonize with other indices, extend its coverage, develop a shock-responsive social protection component, centralize all beneficiary data, and develop sharing protocols.¹³⁸

WFP also uses the platform SCOPE to support targeting and registration. It uses the same vulnerability index of 21 indicators in line with SIMAST, covering 700,000 individual beneficiaries. Its geographic targeting considers SIMAST coverage and works to complement it. Moving forward, SCOPE will harmonize with the national index, continue to ensure integration with SIMAST coverage and protocols, harmonize with the national ID system, and focus on data quality reported from third-party systems.¹³⁹

The stakeholders mentioned above are also involved in ongoing efforts to integrate emergency/humanitarian cash assistance with social protection systems. Achieving a consolidated list of beneficiaries is a top priority for humanitarian and social protection stakeholders. There are also opportunities for donors in the humanitarian space to leverage the strengths of their sector—financing, vulnerability assessments, information systems, and monitoring and evaluation. However, work should continue to support the system to be shock responsive and flexible and ensure the most vulnerable are reached in both crises and regular times. At only eight percent, coverage remains very low compared with other countries, and it is still considered a “nascent” social protection system. While emergency response and social protection should integrate as much as possible, social protection systems continue to need close technical support and monitoring and remain heavily dependent on external funding.¹⁴⁰

Cash-based transfers

The emergency response sector in Haiti gained significant experience with cash-based transfer programming in the wake of Hurricane Matthew. Since then it has built on this experience by looking at opportunities to link emergency response with existing social safety net programming, while factoring support still required for making it a fully shock-responsive social protection system. The COVID-19 pandemic has generated renewed interest in scaling up cash-based transfers in Haiti, due to the significant reduction of overseas remittances because of the global recession. Throughout the Caribbean, the cost of receiving money from overseas has risen. And in Haiti, the cost, eight percent, is already high relative to the region, according to World Bank estimates in late 2020. A study on the impact of the recession on remittances in six Latin American and Caribbean countries (Colombia, Dominican Republic, El Salvador, Guatemala, Honduras, and Mexico) was conducted by Pew in September 2020. The study found significant decline in remittances in April compared to 2019 across these countries, and a relatively strong rebound to normal rates by year’s end. Since Haitian residents rely more on remittances than any other country in the region, it can be inferred that such a decline would create long-lasting negative impacts on Haitian incomes.¹⁴¹

Subsequently, there is global focus on cash-based transfers as a tool for jointly addressing economic and public health issues, as well being appropriate for meeting the needs of the most vulnerable through the social protection system.

¹³⁸ Magheru 2020.

¹³⁹ Ibid.

¹⁴⁰ WFP 2017b; Mercy Corps 2018.

¹⁴¹ Pew Research Center 2020.

There is significant potential to scale-up cash assistance to those in need in Haiti. Cash assistance is currently delivered via humanitarian assistance to an estimated 10 percent of people in need, according to the Humanitarian Response Plan updated for 2020. Cash transfers delivered through social protection systems reached 15 percent of those in need in the wake of COVID-19. In 2020, at least 30 UN or agencies or NGOs were engaged in or planning cash assistance in Haiti.¹⁴²

Box 2. Supporting Large-Scale Cash Transfers and Social Protection for COVID-19

In response to COVID-19, a countrywide review was conducted by OCHA and the Cash Learning Partnership, an international network of cash transfer programming stakeholders, to identify the best way for fast delivery of cash transfers, factoring in the challenges and measures needed for both development and humanitarian actors to actively work together and scale-up cash to reach those most in need in Haiti, notably with a focus on social protection.

The mapping specifically focused on issues around targeting, delivery options such as available financial service providers and infrastructure, and amount of cash to provide (transfer value).

The key findings and recommendations, based on extensive desk review and consultations with MAST, humanitarian coordination, World Bank, donors, UN, INGOS, NGOs, and the Haiti CWG:

Targeting, registration, and reach: Current social protection programming covers only 20 percent of the population—and not necessarily those most in need, based on complex vulnerability indicators. More work is needed to get the current SIMAST vulnerability database to better link and develop into a social registry. A broader MAST data management system is also needed. SCOPE could consider better consolidating and linking into both of these systems as they are developed.

Payment systems: Delivery mechanisms in place for social protection programs are limited by poor infrastructure and governance. While electronic payments such as mobile money are increasing around the world, their use must be carefully considered in Haiti. A robust registry and data management system will be key for any future scaled-up payment system. Existing financial service providers would need significant support for any scale-up, and issues such as financial literacy training should be factored in to ensure financial inclusion.

Coordination between humanitarian and social protection cash: Improved linkages between humanitarian and social protection is much needed for effective measures to be developed, with MAST, OCHA, and World Bank coordinating, and CWG and MAST providing technical support. Advocacy for donors to support both the identified needs as well as coordination efforts is needed.

BOX 3. Review of Cash Based Interventions during Hurricane Matthew

A review of inter-agency cash-based interventions during Hurricane Matthew conducted by Mercy Corps focused on how stakeholders built on lessons learned from previous disaster response in Haiti, as well as an emerging global evidence base, to leverage cash as a market-friendly transfer modality. Evidence was primarily collected from Cash Working Group partners working across Sud, Grand'Anse, and Nippes departments but has broader application across all areas where cash-based interventions are being considered.

Key challenges and lessons identified included:

¹⁴² Magheru 2020.

Preparedness: The need for actors to incorporate cash into their preparedness planning is key to enable a more efficient and rapid use of cash transfers in future emergencies. This could include conducting pre-crisis market analyses and having standard agreements with FSPs (financial service providers). Limited investment and reduced competition in the private sector, especially with MNOs, will likely remain a particular challenge.

Transfer values and price monitoring: The use of localized transfer values based on local market prices was considered good practice where used and is recommended in future. However, regular price monitoring at the local market level would ensure the transfer value remains adequate during program implementation to purchase households' food consumption needs, in the volatile macroeconomic context of Haiti.

Lack of agency and government experience: Many actors felt that despite evidence markets were functional enough in operational areas to support cash-based interventions and FSP agents were identified, agency use of cash and vouchers was relatively low due to fears and misconceptions about risks.

Grunewald (2017) also reviewed cash assistance as part of the Hurricane Matthew emergency response in Sud and Grand'Anse and concluded that Haiti has many opportunities for future and increased use of cash transfers in rapid onset emergencies.

Vouchers

Box 4. Impact of Cash and Vouchers on Local Markets during Hurricane Matthew

CRS Haiti, along with its partners and government officials, responded to Hurricane Matthew in more than 22 of the hardest hit areas of Grand'Anse and Sud. Using market analysis, CRS's response included a range of different cash-based interventions, with a focus on market-aware emergency programming. The types of assistance used varied from cash for work, to unconditional cash and agricultural vouchers. CRS Haiti conducted a study to understand the appropriateness and effectiveness of different cash-based modalities used for an emergency and their effect on vendors and markets.¹⁴³

CRS and USAID launched the EFSP in 2016 and 2017 with the joint objective of supporting agricultural recovery and meeting immediate food needs. The \$9 million project, reaching 32,982 people in 11 communes in Sud, is the main project of relevance to the scope of this MA. The project distributed agricultural input vouchers, first on paper, then as scannable paper vouchers for inputs for the planting season and e-vouchers for a smaller seed fair during summer planting. The agricultural vouchers were complemented with unconditional cash to support basic food and other needs, pre-harvest. All interventions were closely linked to the seasonal calendar.

CRS found measurable positive effects across both the voucher and cash modalities. Markets and vendors rebounded quickly, vendors gained confidence in investing in stock and restarting trade, and there was evidence of increased local market integration.

Key findings from cash-based interventions in 22 communes of Sud and Grand'Anse (Ward 2018 evaluation):

- Cash-based interventions were effective and appropriate. Ninety-three percent of beneficiaries preferred cash to any other form of assistance, markets responded to need, and there were no significant price shortages or shortages.
- Using market information and analysis was key to designing successful cash-based interventions.

¹⁴³ Ward 2018.

- As with all Hurricane Matthew cash-based interventions, the lack of previous exposure and communication and engagement with local government officials was challenging. Additionally, lack of experience of CRS Haiti and partners slowed down efficiency, and lack of deep and wide penetration of financial service providers (such as mobile money, which was used for e-transfers) slowed down quick and rapid delivery.

- Vouchers in particular enabled increased vendor access to financial services and credit and the ability to demonstrate better risk management.

- Unconditional cash had the broadest impact, as it impacted both voucher vendors and the wider market system. Results were found to be *“overwhelmingly positive and showed not only were cash transfers the most appropriate and effective response for beneficiaries, but they had a significant knock on effect on local markets and businesses, supporting livelihoods and trade.”* (Ward 2018).

The study found no one size fits all choice nor any one modality without challenges. Rather, CRS chose different modalities and their likely effectiveness based on the local context of each project, its objectives, local market dynamics, and the availability of FSPs.

5. Considerations for program design in southern Haiti

This chapter outlines a range of market-based transfer modalities that could feasibly be employed in Haiti, along with some considerations for future Development Food Security Activities programming informed by a review of literature, secondary data, and field research. These recommendations are structured to respond to research questions 3–5 for this study.

United States' In-kind food assistance and large-scale local and regional Procurement

Domestic food supply

As described in previous sections, market dependence in Haiti is high, with poorer households purchasing up to 80 percent of their food needs. Staples such as rice, wheat, and vegetable oil are imported. Haiti is not self-sufficient with regard to locally produced staples such as maize, beans, roots and tubers, but production levels relative to needs are generally high. Markets are supplied through a system of domestic production and imports, including significant trade, both formal and informal, with the Dominican Republic. Markets are considered functional and competitive and staple foods are generally available. Nevertheless, remote and hard to reach locations merit additional context-specific analysis.

For situations in which in-kind assistance is appropriate, the global body of evidence generally suggests that a local and regional procurement program (LRP) is preferable if feasible.¹⁴⁴ In some circumstances, a LRP can help stimulate market function (though if improved market function is a priority outcome, there is evidence that cash or vouchers are more effective at supporting and strengthening local market systems). A LRP is also more likely to ensure beneficiaries receive locally acceptable food they know how to prepare. Finally, there is often a cost advantage for a LRP compared to in-kind food as it avoids shipping and import expenses. As of May 2020, USAID Bureau for Humanitarian Assistance allocated 15 percent of its Haiti contributions to LRP.

Since the ongoing political instability in Haiti in 2019, feasibility for LRP, as well as the ability to deliver all food assistance, has been particularly hampered. Additionally, nutritional programming funding stopped. Since late 2019, WFP suspended all food deliveries to school and cash transfers to over 7,300 households (37,000 people) across the country, including in Grand'Anse, due to security and fuel shortages.¹⁴⁵

The WFP and other international agencies have experience in procuring locally produced food in Haiti and the broader region. These organizations generate a call for expression of interest, build up a list of providers, and then proceed with a call for bids among registered bidders. They employ an intermediary

¹⁴⁴ Catholic Relief Services 2017.

¹⁴⁵ OCHA 2019.

who is tasked with working with producers to obtain the products requested. A major challenge to local procurement in Haiti relates to the fragmentation of agricultural production in a large number of small producers.

Table 20 presents annual procurement by WFP in Haiti in 2016. The table shows that WFP acquired 63.3 percent of its produce locally. USAID has previously employed market-based approaches to link food assistance with development programming, partnering with Food for the Poor to purchase 3,000 MT of cereals from local producers in the USAID WINNER project.¹⁴⁶ The main products obtained from local producers include rice, maize meal, and iodized salt. This policy sustains local markets, production, jobs, and the supply chain. It has the potential to enhance livelihoods and improve vulnerable households' access to locally produced, nutritious foods.

Table 20. WFP Annual food purchases by commodity (MT)

Commodity	Local	Regional/International	Total
Corn Soya Blend	-	461	461
Iodized Salt	275	-	275
Maize Meal	1,021	-	1,021
Peas	-	1,481	1,481
Ready-to-Use Supplementary Food	40	1	41
Rice	9,479	3,881	13,360
Vegetable Oil	-	465	465
Total	10,815	6,289	17,104
Percentage	63.2%	36.8%	100%

Source: WFP 2016.

WFP's Home Grown School Feeding project, launched in 2015, provides cereals, pulses, fresh vegetables, root tubers, and milk using fresh food from local farmers. The program initiated in Nippes and has been expanded to the Artibonite department. The goal of the program is to rely 100 percent on locally procured foods, however at present it still relies on a mix of local and imported products. Initiatives such as this one can provide relevant insights for the local procurement of vitamin-rich foods in a non-emergency context.^{147 148}

Storage and transport

Storage and transport continue to be a persistent challenge for humanitarian actors throughout Haiti, particularly in more remote locations. Frequent and unpredictable roadblocks associated with political demonstrations and organized criminal activity have restricted the movements of humanitarian actors

¹⁴⁶ USAID 2011.

¹⁴⁷ WFP 2016.

¹⁴⁸ <https://www.wfp.org/news/haiti-43000-children-receive-school-meal>

and slowed down the implementation of humanitarian operations in 2019, as Haiti experienced protest-related episodes of *peyi lok*, or national shutdown. High transport costs represent an additional challenge for the distribution of in-kind food assistance to target communities.

Cash and voucher programs and small-scale LRP

Exchange rate and inflation

As reported earlier, the longstanding depreciation of the gourde with respect to the U.S. dollar has contributed to the increase in the cost of essential food and non-food items purchased in the international market. Increasing inflation and a stagnant GDP translates to limited economic growth and the loss of purchasing power. Cash-based interventions should consider currency and inflation dynamics when establishing transfer values and frequency of distributions, which can be critical in a rapidly changing context relative to these indicators, such as in Haiti. The appreciation of the gourde in September/October 2020 impacted cash transfer recipients.

Although the strengthening of the local currency may lower the costs of imports by reducing their prices, it is expected that such changes will not significantly affect commodity prices within Haiti. Hence, households may not see an improvement in their economic environment if traders along the chain do not transmit price changes resulting from the appreciation of the gourde to consumers.

Market functionality and Modality appropriateness

As outlined in Chapter 3, security and safety considerations are among the most important factors impacting market activities in southern Haiti. Yet despite these challenges, traders in Sud and Grand'Anse reported being able to respond to increased demand and to renew their stocks within a week, which suggests a relative level of feasibility for market-based responses such as cash transfers and vouchers in these areas.

As far back as 2010, following the Haiti earthquake response, markets have been found to bounce back relatively quickly following sudden onset crises. Market-based responses that restore and support market functionality have proven feasible.¹⁴⁹ Key recommendations following the earthquake were: 1) food aid should be considered only if programs to restore the market chain failed, and 2) when designing food aid programs, local and regional purchases should be considered.¹⁵⁰

The WFP/CNSA rapid market assessment conducted in response to the COVID-19 crisis also reported that markets were found to recover following crisis and that market systems are resilient enough to adjust to changing conditions in local supply to meet population's consumption needs. The main challenge in relation to appropriateness of specific transfer modalities, particularly for Sud, which is a remote location, concerns access. This was also highlighted in the WFP/CNSA/FEWSNET/MoA/CARE market assessment for Hurricane Matthew conducted in 22 markets in the most affected departments of Grand'Anse, Nippes, and Sud. That assessment concluded three weeks after the hurricane that

¹⁴⁹ ACAPS 2016.

¹⁵⁰ ACF International 2012.

markets were able to respond to a surge within one to two weeks, and prices had not been significantly impacted. Overall, WFP/CSNA assessments for both COVID-19 and Hurricane Matthew indicated that markets were functional enough to absorb additional demands, without significant price increases, from potential cash transfer or voucher programs. This analysis infers that cash transfers are a feasible and appropriate market-based response, although it is imperative that prices are monitored alongside cash assistance to ensure transfer values guarantee stable purchasing power.

Box 5. Summary of Hurricane Matthew Market Analysis for Determining Appropriate Market-Based Food Assistance

A range of market assessments were conducted following Hurricane Matthew, findings from which can assist in assessing the appropriateness of market-based food assistance immediately following a rapid onset emergency. Findings also help show the flexibility of markets to respond to increased demand that would be posed by any cash or voucher interventions:

- **WFP Mobile Vulnerability Analysis and Mapping** conducted two days after Hurricane Matthew indicated that apart from Jérémie in Grand'Anse, most markets were moderately functional 48 to 72 hours after the hurricane, especially more populated urban ones.¹⁵¹

- **WFP** with **CNSA, FEWS NET, Ministry of Agriculture and CARE** conducted an in-depth market analysis in 22 markets (including Grand'Anse and Sud) three weeks after Hurricane Matthew. The multi-agency assessment concluded that markets were functional enough to meet additional likely demand. Key findings were a) Cash transfers were feasible, but prices should be monitored weekly, so transfer values guarantee stable purchasing power (and adjusted if necessary), b) complementary cash transfers to smaller traders would be beneficial, and c) mixed review was given by traders of the feasibility of a voucher program (seen as less beneficial and difficult to manage)¹⁵²

- **CRS** also conducted a pre-crisis market analysis prior to Hurricane Matthew that informed its feasibility to provide a combination of cash/voucher modalities in more than 22 communes of Grand'Anse and Sud. CRS also demonstrated through analysis and subsequent effective programming that markets responded to needs and there were no significant prices changes or shortages.¹⁵³

- **ACAPS** conducted a **Multi Sector Market Environment Analysis** in October 2016 to inform strategic decision making on the most appropriate response options and transfer mechanisms, based on understanding of the market environment. Drawing on lessons learned from the 2010 earthquake, it also noted cash transfers to small traders were necessary, as actors who required support in the market chain. This is an example of market-based support that often accompanies cash-based transfers.¹⁵⁴

¹⁵¹ WFP 2016a.

¹⁵² CARE et al. 2016.

¹⁵³ Ward 2018.

¹⁵⁴ ACAPS 2016.

The OCHA Humanitarian Response Plan for 2019-2020 reported that several agencies had plans to conduct pre crisis market analyses in advance of the lean season to determine ongoing feasibility of cash and voucher interventions as a modality outside of emergency periods.¹⁵⁵

Feasibility of market-based food assistance modalities

Existing market analysis, evidence and learning from previous food assistance interventions in Sud and Grand'Anse indicate that, following a large scale disaster and based on remoteness of location, food assistance would be required at a minimum for initial few weeks (based on the availability of pre-positioned stocks). This has potential to be phased out to cash based programming, as soon as FSPs can be contracted and agency organizational systems set up, although this often has proven to take time. Key actors recommend any remaining food distributions shift to regional or locally procured food as soon as possible. Having pre-positioned FSP agreements and broader cash preparedness initiatives in place by implementing agencies would mean cash based programming could potentially be feasible earlier.

Overall, available evidence around cash and vouchers suggest they are a valid and feasible form of food assistance in Haiti, bringing benefits particularly in relation to supporting local markets and that reflect beneficiary preferences, enabling choice and flexibility with food expenditure. Cash transfers would only be possible at a larger scale if investment in partnerships with the private sector (i.e. mobile money operators) and pre-agreed contracts with FSPs are established in advance of an emergency. However, limited networks and connectivity will continue to impact feasibility of mobile-based cash based assistance in remote departments such as Sud.

The following section gives a brief introduction to the benefits of cash and vouchers in the Haiti context, followed by information on available FSPs, including mobile money and their capacities and constraints for existing and potential usage for cash and voucher programs in Haiti.

Cash transfers

Cash is often the most efficient and cost-effective means of providing food assistance, provided recipients are able to buy necessary food items to meet food basket requirements in local markets without availability or inflationary issues, and there are accessible and available delivery mechanisms for encashment or cash transfer distribution. However, if the objective is to improve nutritional status or dietary diversity, provision of vouchers may be more effective in meeting a specific food and nutrition requirement. Cash gives dignity and choice to recipients, allowing them to prioritize their own food needs as part of any other basic expenditure needs, while vouchers allow agencies or donors achieve specific dietary outcomes.

Cash transfers, particularly unconditional cash and multipurpose cash grants have been used in Haiti as a means to address emergency food security increasingly since 2010. In line with the commitments of the 2016 World Humanitarian Summit, implementing agencies in Haiti are committed, through the Cash-Based Transfers Working Group, to increase the use of cash transfers as a flexible and effective way to support affected people and meet their needs while respecting their dignity and preferences and

¹⁵⁵ OCHA 2019.

reducing dependency on aid.¹⁵⁶ Government data on food security needs and market analysis, such as those conducted by MAST and CNSA, are deemed to be acceptable level for cash feasibility, according to agencies providing cash-based assistance, although understanding and experience of the modality remains limited in-country by many agencies. Actors such as the Cash-Based Transfers Working Group, OCHA, and the Cash Learning Partnership have conducted recent reviews and mappings into the appropriateness and effectiveness of cash-based assistance, as well as identified challenges and necessary recommendations for improving program design and implementation.¹⁵⁷

Vouchers

Food voucher initiatives similar to Kore Lavi promote the acquisition of food from local producers. This boosts local production and creates jobs while allowing needy families to obtain nutritious diets (i.e. fresh foods). The increase in food production can also stabilize local markets, avoiding food price inflation. However, if the increase in vouchers is not accompanied with increase in production, and if vouchers can be redeemed by bearers at banks or financial institutions, then expected outcomes will not be achieved and the program may generate food price inflation. Voucher programs must be carefully crafted and implemented to benefit the local economy and stakeholders.

Delivery mechanisms and FSPs

To date, the main financial service providers used by agencies for cash transfers in Haiti have included microfinance institutes, credit unions (*caisses populaires*), remittance agencies, and, in some cases, mobile money. However predominantly, cash in envelopes has still been used, such as in the case of Hurricane Matthew response. Haiti has very low bank account penetration (financial inclusion rate) and limited ATMs outside of Port-au-Prince. This limits the use of bank accounts as a feasible financial service provider for cash transfers.

There has been minimal use of mobile money transfers by humanitarian actors in Haiti to date. Before 2016, only three agencies were identified in the available literature as having used mobile money in a humanitarian response. Key factors preventing further updates include lack of agent networks in rural areas, liquidity challenges, low literacy rates among beneficiary communities, and lack of infrastructure. Additionally, poor regulatory frameworks and limited competition between mobile money actors and a virtual monopoly of two key actors prevents growth and greater financial inclusion opportunities.

The main usage of mobile money to date for emergency assistance for the most vulnerable are the large-scale bulk payment schemes by the Government of Haiti: Kore Lavi and Ti ManMan Cheri.¹⁵⁸ WFP also has its own mobile money payment scheme through Digicel, and Mercy Corps similarly conducted a small pilot in 2011 through Voila.¹⁵⁹

Digicel Haiti, in partnership with Sogebank, offers MonCash, a money management service allowing customers to make financial transactions from their mobile phones, creating a fast and convenient way to stock up one's personal account or that of a third party. It is constituted of a protected mobile wallet

¹⁵⁶ OCHA 2020c.

¹⁵⁷ For example Mercy Corps 2018; OCHA 2020c

¹⁵⁸ See CGAP 2013 and GSMA 2017 for further details.

¹⁵⁹ GSMA 2017.

whereby the account owner uses a PIN to obtain access, track money, and monitor the account. The MonCash account is linked to a user's phone number (SIM card); thus, if the SIM card is inserted into another handset, the account will still be accessible on the new handset. In case the handset or the SIM card is lost, the account holder must contact Digicel by dialing 202, Digicel will block the account, and the funds will be secure. Upon replacing the SIM card, the Mon Cash account, thereby the funds, will become accessible.¹⁶⁰

Using mobile money, users with any mobile phone-based application can transact financially. They can store value, convert cash to and from stored value, and transfer stored value between accounts.¹⁶¹ Mobile Money allows efficient flow of money between hitherto unbanked phone users. Since November 2010, Digicel and Voila have been the driving forces behind mobile money services in Haiti.¹⁶²

A number of remittance agents facilitate cash transfers in Haiti. These include Western Union, UNI-Transfer, SogeXpress, and Caribbean Air Mail (CAM) Transfer, well established across the country and in North America as well as in Dominican Republic. Governmental agencies and NGOs often partner with remittance agencies to implement cash transfer programs in Haiti.¹⁶³ These agencies are employed by family members in the diaspora to send cash to relatives in Haiti. In the wake of the 2010 earthquake, the Red Cross partnered with CAM to transfer cash to a predetermined list of beneficiaries (International Federation of Red Cross and Red Crescent Societies 2019).¹⁶⁴ In that experiment, beneficiaries received ID cards with unique code numbers and distribution punch holes. CAM batched the distributions into groups, informed each beneficiary of her disbursement slot i.e. date and time, and levied a three percent management fee.¹⁶⁵

In Haiti, cash transfer through Cash Agents offers a number of advantages including efficiency, fraud reduction, and the pride conveyed to beneficiaries, treated as distributing Agents' regular customers rather than aid collectors. As a consequence, using Agents for cash transfers fits into Haiti's prevailing socioeconomic environment, since beneficiaries adapt and use the services eagerly. A key advantage of employing Transfer Agents is their penetration across the country, allowing beneficiaries to access benefits at a various geographic locations. This obviates many of the challenges related to widespread insecurity, dysfunctional infrastructure, and uncertainties that Haitians deal with in their daily lives.

Collecting cash at Cash Agents and obtaining basic services from the government, banks, and other institutions has been hindered by the lack of proper identification. The Government of Haiti has implemented a national bureau where citizens could obtain a National Identification Card with a unique number, CIN. Many individuals were unable to provide proof of identity to obtain CIN number. A cash remittee devoid of proper identification tends to utilize a friend or a family member with proper ID as the cash recipient and share the proceeds, leaving the value of the remittance to the remittee. Recently, the Government of Haiti has introduced the CINU, a compulsory but more secure national ID. Failure to obtain and carry a CINU will be considered an infringement of the law.

¹⁶⁰ See <https://support-ht.digicelgroup.com/hc/en-us/articles/115014939848-What-is-Mon-Cash->

¹⁶¹ Donner, J., and Tellez, C. 2008.

¹⁶² Taylor et al. 2011.

¹⁶³ Ferguson 2012.

¹⁶⁴ International Federation of Red Cross and Red Crescent Societies (IFRCRCS) 2019.

¹⁶⁵ IFRCRCS 2019.

In mid-2020, BRH adopted a new policy that will affect personal remittances toward Haiti drastically. The BRH 114-1 bulletin requires that beginning August 2020, all international cash transfers be remitted in the local currency absent the sender's currency of choice. Currently, seeking to arbitrage out the exchange rate, Cash Transfer Agents (CTA) tend to disburse transfers in domestic currency, subjecting beneficiaries with foreign currency-dominated debts to a double whammy in the event they need to buy back the hard currency to fulfill ongoing foreign currency-denominated financial obligations. BRH allows banks and CTA to identify regular customers with existing bank accounts and wire cash transfers in the beneficiary's Eurodollars account. This delivery approach avoids abuses and exchange rate arbitrage at the expense of the cash recipient.

BRH has been planning to launch a National Switch, which would allow for ATM and Point of Sale operability. This would greatly improve the ability of the social protection system to expand coverage and permit humanitarian cash transfers to better link with social protection. The lack of a predictable legal and regulatory framework for the provision of payment services is also an issue. Some elements are in place, such as the National Financial Inclusion Policy, but Haiti still lacks the basic building blocks of an appropriate regulatory framework for payments. This currently hampers the legal viability of establishing effective, large, emergency-scale cash transfers.¹⁶⁶

Mobile money

Using mobile money, users with any mobile phone-based application can financially transact. They can store value, convert cash to and from stored value, and transfer stored value between accounts.¹⁶⁷ The Haitian mobile money ecosystem spans a wide range of players, including service providers, technology providers, agents, vendors, consumers, and regulators.¹⁶⁸ Commercial banks have been traditionally slow to penetrate, particularly in rural areas. According to the 2017 DHS results, about 15 percent of all people age 15 to 49 in Sud and 11 percent in Grand'Anse have a bank account.¹⁶⁹

In 2015, TchoTcho Mobile was replaced by MonCash, a partnership between Digicel Haiti and Sogebank. MonCash, previously discussed, uses SMS-based menus to enable a "mini-wallet." The mini-wallet allows smaller amounts (up to 5,000 gourdes, or \$45.17), in contrast to a full wallet that holds up to 60,000 gourde, or \$542.01, and for which customers needed to present proper Identification at an official mobile money agent or an authorized agent (Table 21). MonCash provides opportunity for the vulnerable or less literate to access this service.¹⁷⁰

Mobile money benefits and drawbacks

Mobile money presents some benefits to beneficiaries, including efficiency, liquidity/cost, and security. However, electricity, Internet coverage, staff quality, and fraud are among the factors inhibiting its efficacy, thereby reducing its cash value. This emerging technology has the chance to create real social and economic advances in Haiti if the challenges can be overcome.¹⁷¹

¹⁶⁶ OCHA 2020.

¹⁶⁷ Donner, J., and Tellez, C. 2008.

¹⁶⁸ Dalberg 2012; HMMI 2015.

¹⁶⁹ IHE and ICF 2018.

¹⁷⁰ See <https://support-ht.digicelgroup.com/hc/en-us/articles/115014939848-What-is-Mon-Cash->

¹⁷¹ Diniz et al. 2011.

Benefit: efficiency—Mobile transactions, executed on a dependable network, are fast, rapidly accessible, informal by design, secure, and viable. The depth of telephone penetration provides mobile money an edge over banks and transfer agents, marked by significant overhead and operating costs.

Benefit: liquidity/cost—Inadequate liquidity problems may arise for relatively large dollar-denominated transfers. Generally small in scope, mobile transfers can be readily claimed within the network of cash agents endowed with sufficient liquidity to meet demand. In contrast to rural areas where cash agents are sparse, liquidity issues may be infrequent in urban and suburban areas where cash-out locations are so dense that if liquidity is inadequate in one location, a beneficiary can find an alternate location within minutes.

Problems often arise, however, when beneficiaries have difficulty presenting valid ID. These problems are less frequent among authentic mobile owners with a tracking number. The ease with which mobile users can obtain a SIM card in Haiti suggests a nontrivial probability that the bearer of a phone or a phone number is not the legitimate owner. Table 22 exhibits a regressive pattern of cash-out costs, which were very high at the bottom, with fees reaching as high as 20 percent per transaction but representing only 0.5 percent at the highest end. Transfer costs followed a similar pattern of 10 percent (lowest end) and 0.25 percent (highest end).

Despite shortcomings, the development, utilization, and expansion of digital payment and electronic technologies as a mechanism of transfer of store value remains a high priority in Haiti at an institutional level. It has been adopted by humanitarian and government sectors as a reliable vehicle to transfer cash during and post-disaster. Amid the COVID-19 pandemic, on April 30, 2020, the Government of Haiti authorized Digicel to transfer 3,072 gourdes (\$29.54) to 22,888 beneficiaries. Maarten Boute, the CEO of Digicel, advised MonCash beneficiaries against withdrawing the entire cash payment and encouraged them to make virtual transactions. Each beneficiary can cash out 3,000 gourdes (\$28.85) with 72 gourdes (\$0.6924) deducted at source as costs (i.e., a 2.35 percent management fee levied by MonCash agents if the beneficiary decided to withdraw the entire amount).

Table 21. Wallet size and transaction fee

Panel A: Wallet size	Mini Wallet	Full Wallet
Wallet size	5,000 HTG (\$45.17)	60,000 HTG (\$542,01)
Daily transaction limits (Deposits excluded)	5,000 HTG (\$45.17)	60,000 HTG (\$542,01)
Monthly transaction limits (Deposits excluded)	5,000 HTG (\$45.17)	60,000 HTG (\$542,01)
Panel B:		
	Daily transaction limits	
	Mini Wallet	Full Wallet
Wallet size	4,000 HTG (\$36.13)	40,000 HTG (\$361.34)
Daily transaction limits	8,000 HTG (\$72.27)	80,000 HTG (\$722.67)
Monthly transactions limits	30,000 HTG (\$271.00)	120,000 HTG (\$1,084.01)

With a program size of 4.61 billion gourdes (\$44.31 million) targeting 1.5 million households, Digicel and its MonCash agents have potential to collect \$1,038,461.54 in management fees. At this point, mobile money is gaining momentum in Haiti. There have been a number of experiences from the humanitarian and the government sectors to further this means of payment and improve financial services.

Benefit: avoiding direct cash transfer (DCT) safety challenges—Known as a “cash-in-transit,” DCT is a cash transfer modality utilized in a number of countries. It involves distributing cash envelopes directly to beneficiaries. Security factors can be very influential in choosing a cash delivery mechanism. Any cash delivery mechanism needs account for risk factors and the security of personnel. It is more secure to transfer cash electronically in Haiti than to carry large amounts of cash. For example, in Oxfam’s livelihoods program in Haiti, security concerns ruled out the direct delivery of cash (see Harvey et al., 2010). A previous Oxfam food delivery project (supported by WFP) encountered problems, including looting of a van and insecurity at distribution points. This led to the use of vouchers exchangeable for cash in local shops, which ensured the agency did not have to handle cash at all.¹⁷²

Challenge: network—Internet and cellphone coverage is a severe and persistent problem in Haiti. Internet coverage works best in some suburban areas. In rural settings, coverage is limited, and calls are dropped regularly. Many telephone users own two phones with different phone numbers to mitigate the effect of lack of coverage. Interconnection between providers remains a challenge. Sometimes, beneficiaries fail to receive a call or a text message informing them their cash is ready for pick up. This leads to delays or loss of payments.

Challenge: electricity—Electricity is a major issue throughout Haiti. Power outages can last weeks in urban areas. The vast majority of rural areas do not have electric service. In some cases, beneficiaries pay a fee to charge their phone using a neighbor’s power source. Together, lack of electricity and poor internet coverage reduce the cash value of a cash transfer.

Challenge: staff quality—MonCash and CTA are generally poorly staffed. While enhanced measures are implemented to ensure physical security, misconduct during cash-outs is frequent, and Digicel customer service is often substandard. Customer service representatives tend to push back in lieu of resolving issues. Customers frequent more dependable cash agents, causing congestions at these sites. When a customer asks an agent to perform a cash-in on another person’s account, it is considered as a transfer

Table 22. Transaction fee schedule in HTG

Amount	Cash-in	Transfer	Cash-Out
10–19	0	1	2
20–99	0	2	4
100–249	0	4	8
250–499	0	5	10
500–999	0	7.5	15
1,000–1,999	0	15	30
2,000–3,999	0	25	50
4,000–7,999	0	35	70
8,000–11,999	0	45	90
12,000–19,999	0	60	120
20,000–40,000	0	100	200

¹⁷² Harvey et al. 2010.

to another user, and the associated fee can be substantial, ranging from 0.16 to 20 percent, depending on the size of the transaction.

Challenge: fraud and graft—In 2016, Haiti’s literacy rate was 82.99 percent, well below the 90 percent average literacy rate in Latin America and the Caribbean. Many beneficiaries are technologically challenged and remain vulnerable to fraud and abuse. Following a transaction, the beneficiary needs to verify its accuracy before concluding it was complete. Low-literacy phone holders face great difficulty in confirming the accuracy of a transfer before proceeding to cash out.

Challenge: lack of ATMs and mass-market services—With limited mass-market services, consumers are most frequently reported to use their mobile wallet as a mechanism for security, domestic remittances within Port-au-Prince, and airtime purchases.¹⁷³ Mobile wallets link beneficiaries with formal banking and financial services and are suitable for transferring cash benefits. Beneficiaries enjoy the benefits of regular banking and are assigned an account number and a debit card associated with a PIN, which can be used at ATM. However, in 2018, Haiti had only 2.1 automated teller machines per 100,000 habitants.

¹⁷³ Dalberg 2012.

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Annexes

Annex I. Methodology and sources of information

Approach

The research team employed a mixed-methods design to conduct this market study, with the overall objective of providing USAID/BHA and potential BHA awardees sufficient evidence to inform the design of development food security activities appropriate for the contexts in Sud, and Grand'Anse departments.

Specifically, the study aimed to provide actionable information about market conditions in each department and the appropriateness of various food assistance transfer modalities (cash, vouchers, local and regional procurement, and U.S. in-kind), as well as issues related to market function and feasibility to deliver those modalities.

Sources of data and other information

Secondary data

Given restrictions imposed on travel and gatherings during the COVID-19 pandemic, the research team relied on a diverse set of secondary data sources to address research questions.

Secondary data on market prices for staples (including rice, maize, sorghum, and beans) was obtained from FEWS NET, but other resources were also consulted (such as from the Ministry of Agriculture of Haiti, FAO, and WFP).¹⁷⁴ Additional macroeconomic data and monetary indicators published yearly, monthly, and daily by The Central Bank of Haiti¹⁷⁵ were used to understand broader economic trends (such as currency fluctuation and inflation) that may be relevant to FFP's food assistance strategy.

The data was analyzed with Excel and Stata.

Primary data

The team collected primary data through surveys with relevant stakeholders. The approach to data collection was adjusted over the course of the activity in the face of climatic events (tropical storms), travel and gathering restrictions, a volatile security situation along national roads connecting to the southern departments, power outages, and the responsiveness of potential respondents.

¹⁷⁴ Ministry of Agriculture of Haiti conducts a weekly survey on staple food market prices for different areas of the country: <http://statistiques.agriculture.gouv.ht>

¹⁷⁵ The Central Bank of Haiti publishes yearly data on macroeconomics indicators such as GDP, investment, imports, and exports level. It also publishes monthly data on inflation rates and daily data on the exchange rate of U.S. dollars versus Haitian gourdes and interest rates: <https://www.brh.ht/statistiques-2/>

Primary data was collected from households, food traders, agricultural producers, and moto-taxi drivers in Grand'Anse. These groups were identified as key sources of information to respond to the research questions posed for this activity. Respondents were selected using a non-probability sampling approach. No data was collected in Sud. Table 23 provides an overview of the locations covered in each department.

Table 23. Primary data collected

Department (Commune)	Households (#)	Producers (#)	Vendors (#)	Moto-taxi drivers (#)
Grand'Anse (Abricots, Bonbon, Chambellan, Moron)	77	25	21	22
Sud	0	0	0	0

Vendors were surveyed in markets during market days. Producers were identified through local informants. Thereafter, a snowball method was applied, with respondents providing references to other producers in the area. Taxi drivers were predominantly, and randomly, approached in moto-taxi stations.

As much as possible, households were randomly selected in different neighborhoods within the communes, in both rural and urban areas. However, in practice this balance was not possible, and the sampled households were mostly urban.

Being a non-probability sample, it is important to emphasize that the information presented should not be interpreted as representative of the general population in these locations. Rather, the data offers insights about the situation and experiences shared by local informants and helps contextualize the analyses.

Literature

The team gathered relevant bibliography from the academic and grey literature. Studies published in the past five years were prioritized, but older references were also used if relevant for a particular topic.

Annex 2. General context in Haiti

Population

In 2019 Haiti had a population of 11.26 million¹⁷⁶ inhabitants with 56 percent of them living in urban areas. Although the proportion of is the urban population constantly increasing, Haiti's urbanization process is slowing down (Figure 29). The growth rate of the population living in rural areas is also decreasing. This may be due to the observed fall in the growth rate of total population or to the impact of migration.

Low-skill labor migration to the Dominican Republic also contributes to changes in the rural population. In practice, low-skilled Haitian workers migrate to the Dominican Republic before the growing season (January–March). They may also leave immediately after the completion of land preparation work (between May and July) once women are able to take over the rest of the farm work. Youth (in most cases, eldest sons) also migrate to the Dominican Republic during school holidays.¹⁷⁷

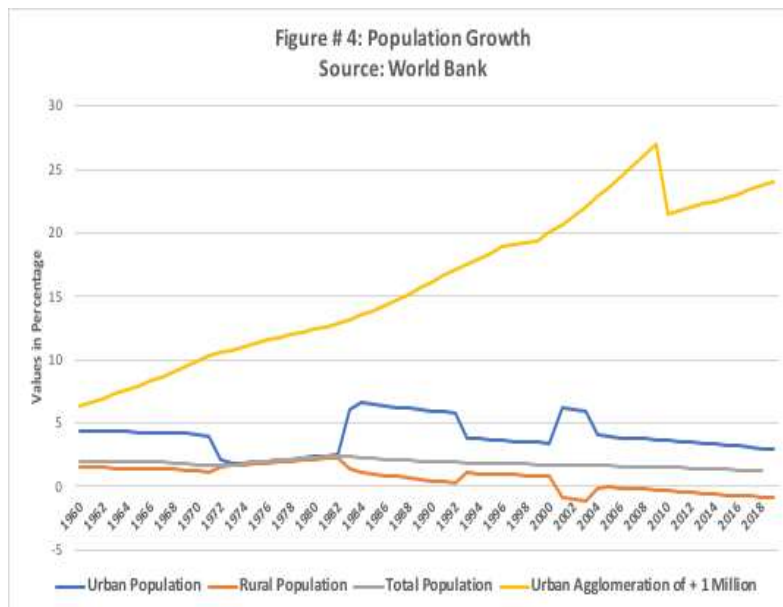
Macroeconomic context

After almost two years of political instability, road protests, and lockdowns, Haiti has experienced its worst post-earthquake economic performance, with a drop in real GDP of 0.93 percent in 2019. With Haiti highly dependent on imports, households' economic plight is worsened by the accelerated depreciation of the local currency against currencies of the country's major trading partners. For instance, between 2015 and 2019 the gourde depreciated from 50.70 HTG/USD (annual average) to 88.81 HTG/USD (annual average).¹⁷⁸

Exchange rate analysis

“Exchange rate” is defined here as the quantity of local currency (gourdes) needed to obtain one U.S. dollar. Due to social unrest and political and economic instability, the relative local currency (gourde)

Figure 29. Population growth



Source: World Bank 2020.

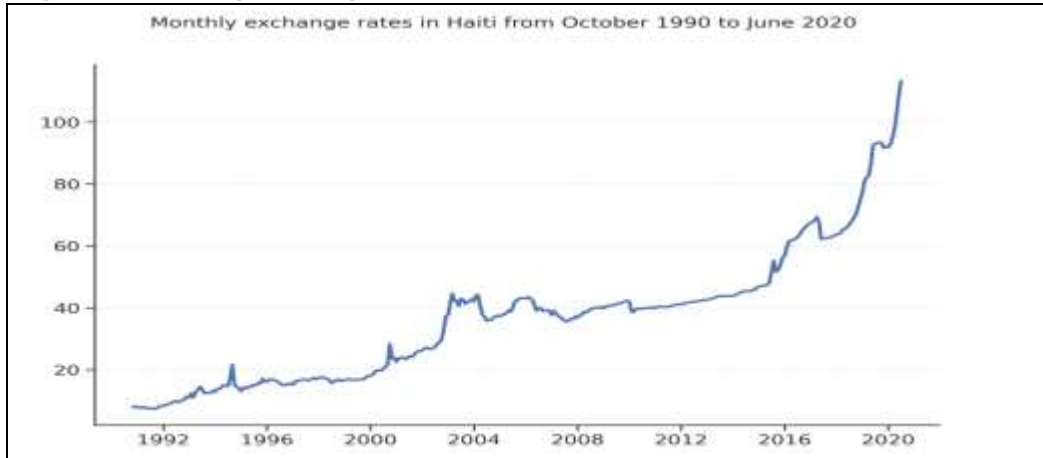
¹⁷⁶ World Bank 2020a.

¹⁷⁷ FEWS NET 2015.

¹⁷⁸ World Bank 2020a.

value has decreased throughout the years, and this loss of value has been sharper since 2016 (Figures 30 to 32).

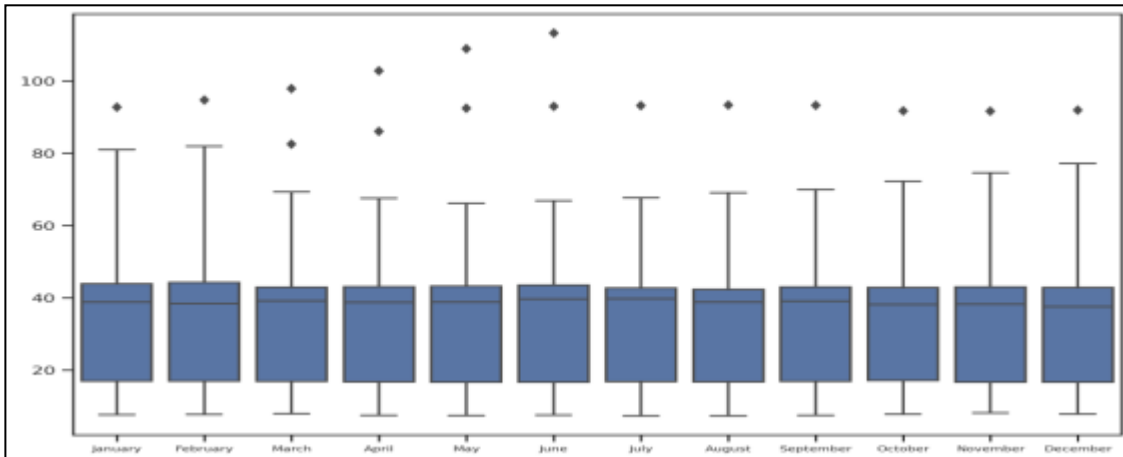
Figure 30. Monthly exchange rate, historic series



Source: World Bank data.

The analysis shows that the variability of the exchange rate was higher between November and February than in other months of the year. The variability was relatively higher in January and February. The median was quite constant during all months, with a small shift in June and July. The analysis reveals the presence of outliers in all the months. Since the exchange rate has grown a lot for the last four years in Haiti, having outliers is expected.

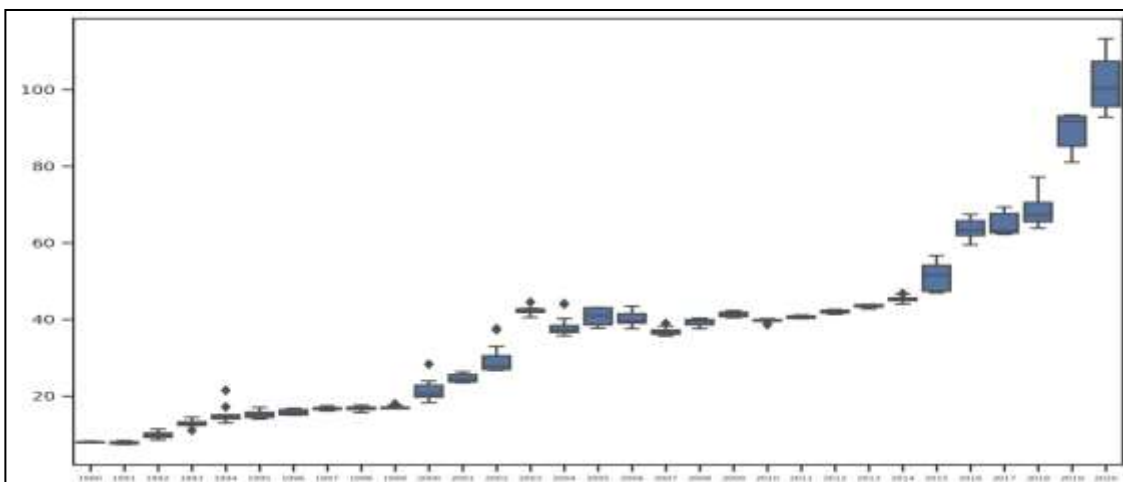
Figure 31. Monthly variability in the exchange rate, historic series



Source: World Bank data.

When studying the exchange rate behavior along the series, we see higher variability in the last four years than previously. During past years—before 2015, for example—variability was thin except for the period between 2000 and 2006, years of frequent Haitian political unrest. It is clear the median and the variability of the exchange rate have been higher since 2015. Particularly, the median has been sharply higher since 2019 than in past years. The exchange rate has been out of control since 2015, and the trend continues, with the situation worse since 2019.

Figure 32. Exchange rate behavior, historic series



Source: World Bank data.

Econometric analysis and forecast¹⁷⁹ reveals the exchange rate is expected to remain volatile in the near future, if general macroeconomic conditions experienced in the past years remain unimproved.

Economic growth

This combination of currency depreciation and drop in real GDP has adverse effects on the agricultural sector, which contributes up to one-fifth of Haiti's GDP and accounts for 99 percent of the primary sectors contribution to GDP.¹⁸⁰ The Short-term ICAE *Indicateur Conjoncturel de l'Activité Economique* (ICAE)¹⁸¹ produced by the *Institut Haïtien de Statistique et d'Informatique* (IHSI) indicates the agricultural sector experienced a decline of 4.7 percent in the first quarter of fiscal 2019. Secondary and tertiary sectors, drivers of growth in the Haitian economy, have also declined by 7.9 percent and 4.7 percent, respectively, over the same period.

Haiti's GDP has remained stagnant for several decades (Figure 33). Imports have doubled over the past 20 years, reaching 56 percent of the gross domestic product in 2019, while final consumption expenditure has exceeded GDP since 2000. This economic anomaly is supported by money transfers from the Haitian diaspora.¹⁸² Remittances from the diaspora reached \$1.5 billion in the first semester of 2019 and are often spent on food or education. Food products are the second largest import to Haiti behind mineral fuel. Largely undiversified, exports accounted for roughly 17 percent of GDP in 2019. About 80 percent of Haiti's exports stem from the garment industry and constitute mainly apparel, including knit shirts, sweaters, suits, undergarments, etc.

¹⁷⁹ Analysis carried out by Jean-Baptiste Antenord, Econometrics senior professor at the CTPEA-UEH

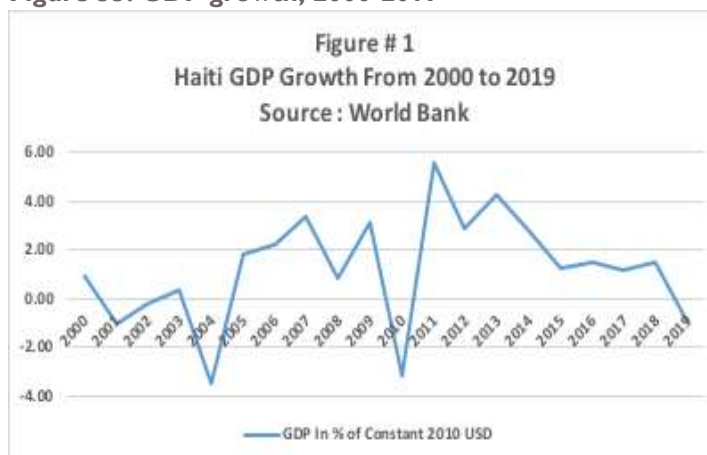
¹⁸⁰ BRH 2020b.

¹⁸¹ IHSI 2020.

¹⁸² Households' consumption of goods and services are supported by money received from relatives in the diaspora and not from incomes generated inside the country.

The COVID-19 pandemic has resulted in a global economic slowdown, limiting some governments' ability to raise revenue and provide benefits. Efforts in advanced economies with borrowing capabilities have not spared these economies from entering recessions. For instance, in the second quarter of 2020, the economies of both the U.S. and the United Kingdom had contracted by 32.9 percent¹⁸³ and 20 percent,¹⁸⁴ respectively. The World Economic Outlook published by the International Monetary Fund anticipates a fall of about 8 percent in advanced economies' GDP in 2020, about 6.5 percentage points lower than the pre-COVID-19 projections of January 2020.¹⁸⁵ As developed economies combat the pandemic and budget squeezes amplify, a slowdown is expected in remittances, official development assistance (ODA), grants, portfolio and foreign direct investments, and other financial flows to the global South.

Figure 33. GDP growth, 2000-2019



Data: World Bank 2020.

The consequences of a global economic downturn will be felt much more strongly in poor countries, where households lack the resources to afford basic needs. Uncertainty about long-term effects on trade and on other sectors rises with the decline in financial inflows into developing countries.¹⁸⁶ External private finance inflows into developing economies may drop by \$700 billion in 2020 compared to 2019 levels, exceeding the immediate impact of the 2008 Global Financial Crisis by 60 percent.¹⁸⁷ Ripple effects on middle- and low-income countries' finances and on the working poor may be exacerbated by the global recession and plummeting cross border flows.

Haiti's economic performance will deteriorate due to broad impacts of these trends. The World Bank forecasts a decline of 3.5 percent in Haiti's GDP in 2020. Remittances are expected to decline significantly in 2020. The shutdown of various offices public and the private sector offices owing to the health emergency during March 2020 to July 2020 has a negative effect on the distribution of seeds and other agricultural inputs necessary in the run up to the spring agricultural season. As a result, a fall in food production and an increase of food inflation are anticipated.

¹⁸³ Bloomberg 2020.

¹⁸⁴ Ibid.

¹⁸⁵ IMF 2020.

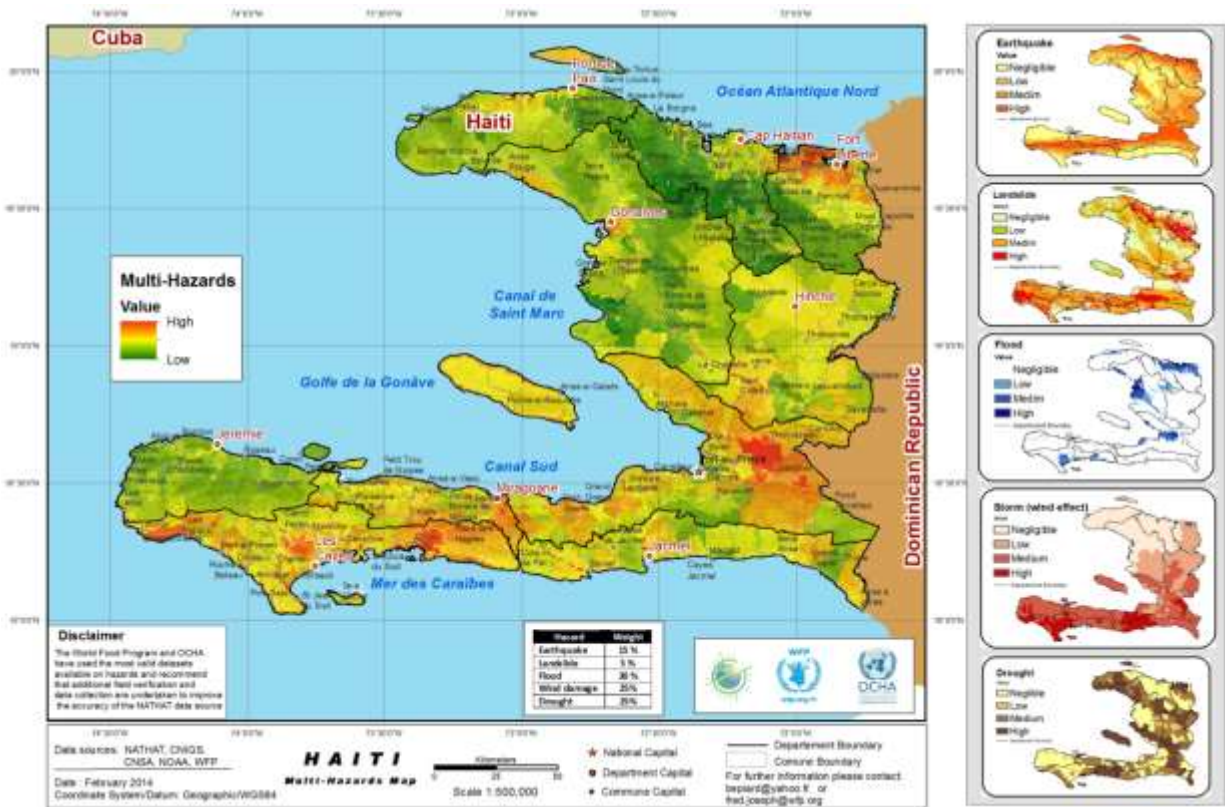
¹⁸⁶ UNESCO 2020.

¹⁸⁷ OECD 2020.

Environmental hazards in Haiti

The map provides an overview of environmental hazards affecting the country, as well as a composite assessment summarizing the hazards threat (Figure 34).

Figure 34. Environmental hazards in Haiti



Source: WFP and OCHA, 2014.

Gender

Haitian women continue to face barriers in involvement in agriculture. Cultural norms create disadvantages for women farmers. Women are less likely to own land and have less access to resources (credit, extension services, or input) than men, yet they account for half the informal agricultural workforce.

Women are entitled to access and own land under Haitian statutory law, but in practice female household heads typically own fewer and smaller plots of land than males. A women's marital status has an impact on land rights. For example, if a marriage is not officially registered, married women can be deprived of land.¹⁸⁸ After the post-earthquake crisis, an increased influx of population movement to

¹⁸⁸ LandLinks 2010.

rural areas generated an increase in land tenure disputes, making female households more vulnerable to being deprived of land.¹⁸⁹

Women are important actors in the agriculture labor market. They account for 38.4 percent of Haitians working in agriculture and have important roles in agriculture processing and marketing sectors.¹⁹⁰ . Agricultural labor is divided among tasks for men and women. Women tend to secure the procurement of seed from local markets while men tend to focus on heavier work, such as land clearing, plowing and tilling, and handling livestock, which involve higher capital than small investment crops. Men and women are involved harvesting and weeding activities. Women play a significant role in post-harvest as they are involved in grain storage for grain that is not sold. Access to post-harvest storage can help increase women’s financial control of resources.¹⁹¹

Women struggle to gain access to credit, extension services, and input. They often lack criteria to enroll in microfinance programs, preventing them from obtaining funds to help their small businesses thrive. Government extension services fail to include women, and they are unable to receive the same knowledge or inputs as men.¹⁹²

In addition to agricultural activities, women bear the burden of all household responsibilities (Table 24). Women are responsible for taking care of the household, raising children, cooking, cleaning, and fetching water. Women are likely to be subject to gender-based violence while conducting household responsibilities. One in three Haitian women age 15 to 49 has experienced physical or sexual violence.

Table 24. Household division of labor

Men	Women
Heavy agricultural work: clearing lands, tilling, and harvesting	Agricultural work: seeding/planting, weeding, harvesting and bulking for market
Care of large livestock: cattle, horses, mules	Care of small livestock: pigs, goats, poultry, donkeys
Cultivation and marketing of export crops	Sale of agricultural produce in the domestic marketing circuits
Agricultural wage labor, either individually or through an “eskwad” (collective labor arrangements)	Purchase of household essentials with marketing revenues
Fishing	Cooking, cleaning, laundry
Certain kinds of craft production	Care of children, including educational and medical needs
Migratory labor	Collecting water

Source: Goertz, 2016.

¹⁸⁹ Action Aid 2015.

¹⁹⁰ USAID 2016.

¹⁹¹ Quellhorst et al. 2020.

¹⁹² Venort 2019.

Although women play important roles in the agricultural workforce, they lack a secure stable revenue. Wages among women are 32 percent lower than wages among men.¹⁹³ Women have a weak position when deciding the use of household income, but they do carry the weight of buying food for their families. Women adjust to low-income spending by reducing spending on nutrition and family well-being. Households adjust to reduced food purchasing power by shifting to cheaper, less diverse diets. Women tend to buffer the impact through extreme strategies: reducing their own consumption to feed others, collecting wild food, migrating or selling assets, and even taking on risky jobs.¹⁹⁴

Madam Saras

Madam Saras are unique to Haiti's agricultural market and are crucial to the household economy. Otherwise known as women traders, Madam Saras play the lead role in securing market links between rural and urban consumers as well as some imported goods. They sell everything from fruits, vegetables, prepared food, biscuits, alcoholic drinks, clothing shoes, to household goods. They trade in coffee and livestock.¹⁹⁵ Rural farms have the option to sell their produce to Madam Saras at arranged locations on their routes to larger markets.

Poor and unsafe road conditions jeopardize women's access to markets. Those with more capital often travel in groups, loaded on trucks. Those with less money travel by foot or on mules and donkeys. Nighttime travel is more dangerous, and women can fall victim to robbery, corruption, violence, and rape.¹⁹⁶ Madam Saras vastly contribute to the development of domestic value chains (e.g., vegetables, tubers, beans). Most export-orientated value chains (e.g., essential oils, coffee, mango, and cacao) tend to be dominated by men.

COVID-19

Haiti has among the highest mortality rates from natural disasters in the world. Factors that contribute to these deaths—such as poverty, food insecurity, lack of clean water and sanitation, lack of health care resources, low education attainment—make Haiti especially susceptible to the viral pandemic of COVID-19.

The Government of Haiti has taken important steps to minimize the spread of the disease by closing schools, factories, airports, ports, and banning meetings of more than 10 people. Haiti has confirmed cases of COVID-19, but they are lower than expected. It is likely that due to fear, stigma, and misinformation, many Haitians do not seek tests or treatment for the virus. As of January 2021 there were 10,781 confirmed cases and 240 deaths in Haiti from the virus. Haiti's neighbor, the Dominican Republic, has confirmed more than triple the number of cases and deaths from COVID-19. The Dominican Republic has more 193,118 confirmed cases and 2,437 deaths.¹⁹⁷ This presents a high concern for border regions with the Dominican Republic.

¹⁹³ World Bank 2015.

¹⁹⁴ Oxfam 2019.

¹⁹⁵ Venort 2019.

¹⁹⁶ Goertz 2016.

¹⁹⁷ WHO 2021.

After previous natural disasters, donors rushed in to help, but Haiti is experiencing little response from the international community and is receiving limited COVID-19 tests. Major hospitals are short on personal protective gear. Haitian National Laboratory and GHSKIO are working together to perform tests and share resources. USAID is providing food aid in partnership with the UN World Food Programme to assist Haitian households with high levels of food insecurity. From March 2020 to June 2020 they distributed food to 121,610 individuals.¹⁹⁸

Food insecurity, already very high, has grown more in recent months due to the economic consequences of the COVID-19 pandemic. The current response to food insecurity is important but remains insufficient. According to the food security cluster, the revised target was to reach 1.56 million people by 2020. However, according to funding confirmed by partners in the sector, only 780,000 people could receive the necessary food aid. If new funds are not mobilized this year, the deficit would be around 50 percent for food security response in Haiti.¹⁹⁹ Food prices are increasing, and restrictions to movement disrupts economic activities, forcing the most vulnerable Haitians into further poverty.

¹⁹⁸ State Department 2020.

¹⁹⁹ Food Security Cluster 2020.

Annex 3. Production of staples in the study areas

Table 25. Food Balance Sheet Sud

Sud Department			
Source: CNSA/FEWSNET			
	2018/19	2019/20	Variation
Rice/Prod (MT)	2048	1765	-283.00
Rice/Prod. Needs (MT)	28339	32848	4509.00
Rice/Self-Sufficiency (%)	7.23%	5.37%	-0.02
Maize/Prod (MT)	19132	16209	-2923.00
Maize/Prod. Needs (MT)	17390	17680	290.00
Maize/Self-Sufficiency (%)	110%	92%	-0.18
Sorghum/Prod (MT)	5495	5443	-52.00
Sorghum/Prod. Needs (MT)	5275	5275	0.00
Sorghum/Self-Sufficiency (%)	104.17%	103.18%	-1%

Table 26. Food Balance Sheet Grand'Anse

Grand'Anse Department			
Source: CNSA/FEWSNET			
	2018/19	2019/20	Variation
Rice/Prod (MT)	201	174	-27.00
Rice/Prod. Needs (MT)	20992	24332	3340.00
Rice/Self-Sufficiency (%)	0.96%	0.72%	-0.24%
Maize/Prod (MT)	11587	9816	-1771.00
Maize/Prod. Needs (MT)	9409	9566	157.00
Maize/Self-Sufficiency (%)	123%	103%	-21%
Sorghum/Prod (MT)			0.00
Sorghum/Prod. Needs (MT)	3090	3090	0.00
Sorghum/Self-Sufficiency (%)			

Table 27. Food Balance Sheet Haiti

Haiti (Nationwide)			
	2018/19	2019/20	Variation
Rice/Prod (MT)	153974	132738	-21236.00
Rice/Prod. Needs (MT)	508283	589146	80863.00
Rice/Self-Sufficiency (%)	30.29%	22.53%	-0.08
Maize/Prod (MT)	204745	173457	-31288.00
Maize/Prod. Needs (MT)	296427	301291	4864.00
Maize/Self-Sufficiency (%)	69%	58%	-0.11
Sorghum/Prod (MT)	104999	104009	-990.00
Sorghum/Prod. Needs (MT)	90176	90176	0.00
Sorghum/Self-Sufficiency (%)	116.44%	115.34%	-1%

Annex 4. Price Analysis – Market Integration

For markets' integration analysis, correlation coefficients are computed for prices across different markets. However, as the prices in general increase over time, considering only the co-evolution of prices across markets can lead to spurious correlations, reflecting only that prices across markets increase over time. To address this concern, correlation coefficients of the growth rates of prices are considered. In the end, markets would be considered as integrated, i.e., exhibiting similar evolution patterns, if both their levels and growth rates are shown to be (significantly) correlated.

Maize grain

Following this logic, correlation statistics show that maize grain prices exhibit similar evolution in Cayes and Jérémie markets. The evolution in prices for Jérémie and Fond-des-Negres are also significantly positively associated. The evolution in maize grain prices for the two markets in the study area do not appear to be significantly associated with those the Port-au-Prince market, however.

Table 28. Correlation analysis of maize grain

Correlation of price levels				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.78*	1		
Jérémie	.64*	.68*	1	
Port-au-Prince	.82*	.73*	.42*	1
Correlation of prices' growth rates				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.19	1		
Jérémie	.29*	.33*		
Port-au-Prince	-.03	.09	.00	1

* indicates the correlation coefficient is significantly different from zero at 5 percent.

Maize meal

Similar to patterns observed in the seasonality of maize meal prices, only Cayes and Fond-des-Negres maize meal markets appear to be integrated, as evidenced by the coefficient of correlation. Jérémie's maize meal market in particular shows little co-movement with either of the other markets considered.

Table 29. Correlation analysis of maize meal prices

Correlation of price levels				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.95*	1		
Jérémie	.65*	.72*	1	
Port-au-Prince				
Correlation of prices' growth rates	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.68*	1		

* indicates that the correlation coefficient is significantly different from zero at 5 percent.

Rice

Regarding markets integration, the evolution of milled rice prices in Cayes and Jérémie is significantly associated with those in Port-au-Prince. All markets are integrated, however, with respect to Mega rice prices.

Table 30. Correlation analysis of milled rice prices

Correlation prices (level) of imported (Mega) rice				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.88*	1		
Jérémie	.93*	.92*	1	
Port-au-Prince	.92*	.92*	.97*	1
Correlation of prices' growth rates				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.14	1		
Jérémie	.08	.16	1	
Port-au-Prince	.25*	.07	.42*	1

* indicates the correlation coefficient is significantly different from zero at 5 percent.

Table 31. Correlation analysis of imported rice prices

Correlation of price levels for milled rice			
	Fond-des-Negres	Jérémie	Port-au-Prince
Fond-des-Negres			
Jérémie	0.97*		
Port-au-Prince	0.98*	0.95*	
Correlation in prices growth rate			
Fond-des-Negres			
Jérémie	.55*		
Port-au-Prince	.49*	.51*	

* indicates the correlation coefficient is significantly different from zero at 5 percent.

Sorghum

The correlation analysis shows that prices in Grand'Anse and Sud are correlated with each other as well as with reference markets, suggesting market integration in this commodity. In addition, sorghum prices in Cayes market have the same evolution as in Fond-des-Negres and Port-au-Prince.

Table 32. Correlation analysis of sorghum prices

Correlation in price levels				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes				
Fond-des-Negres	.96*			
Jérémie	.82*	.84*		
Port-au-Prince	.93*	.96*	.84*	
Correlation in price growth rates				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes				
Fond-des-Negres	.68*			
Jérémie	-.08	.03		
Port-au-Prince	.59*	.47*	-.06	

* indicates the correlation coefficient is significantly different from zero at 5 percent.

Black beans

Black beans markets in the areas are also integrated, with prices in Cayes showing a significant correlation with those in Jérémie. The two markets in the study area are significantly integrated with Fond-des-Negres.

Table 33. Correlation analysis of black bean prices

Correlation prices (level)				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.99*	1		
Jérémie	.96*	.96*	1	
Port-au-Prince	.96*	.97*	.94*	1
Correlation prices' growth rates				
	Cayes	Fond-des-Negres	Jérémie	Port-au-Prince
Cayes	1			
Fond-des-Negres	.77*	1		
Jérémie	.52*	.54*	1	
Port-au-Prince	.22	.28*	.21	1

* indicates the correlation coefficient is significantly different from zero at 5 percent.