Agricultural Financing in Haiti

Diagnosis and Recommendations

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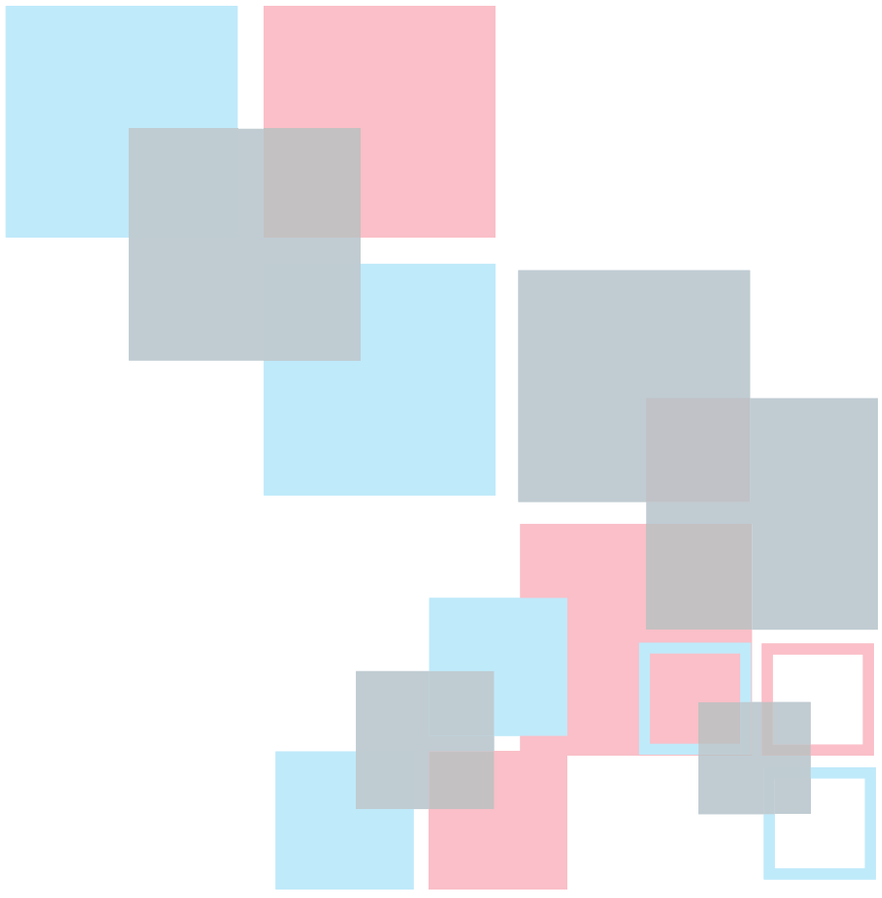

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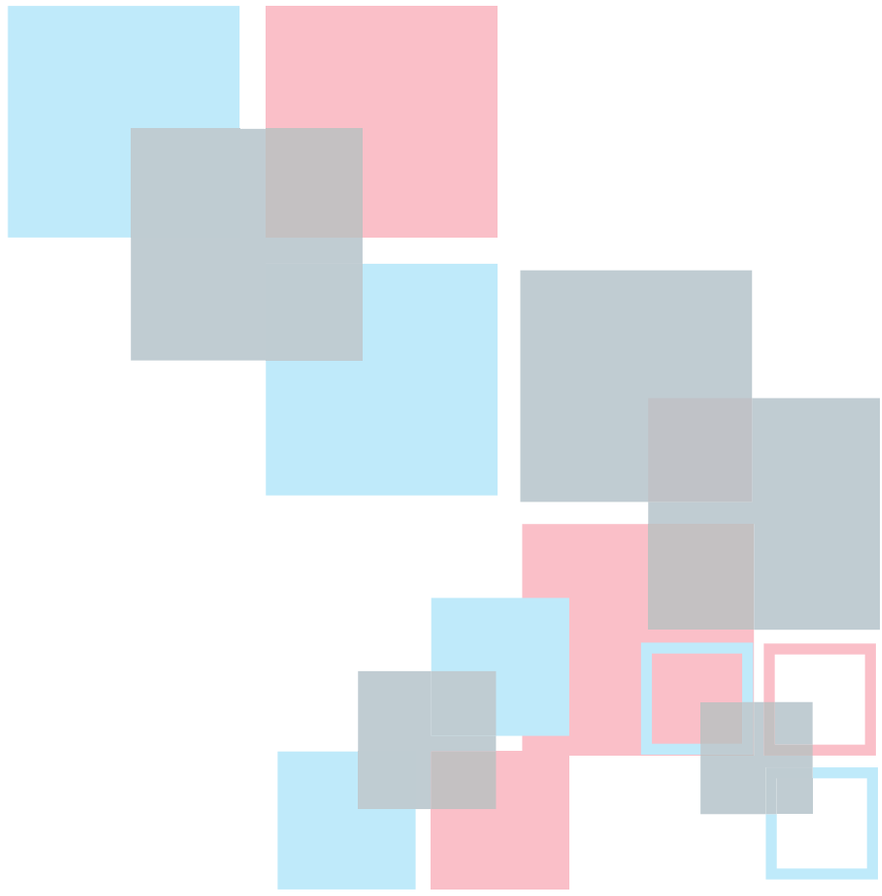
Abbreviations and Acronyms

AFD	French Development Agency
AIC	Alternative Insurance Company
ANACAPH	National Association of Haitian Credit Unions
ANEM	National Association of Mango Exporters (*Association Nationale des Exportateurs de Mangues*)
ANIMH	National Association of Microfinance Institutions in Haiti
ASREC	Crop Insurance (*Assurance Récolte*)
ATM	Automated Teller Machine
BCA	Crédit Agricole Bureau (*Bureau de Crédit Agricole*)
BIC	Credit Information Office
BNC	National Bank of Credit (*Banque Nationale de Crédit*)
BRH	Bank of the Republic of Haiti, Haiti's Central Bank (*Banque de la République d'Haïti*)
BUH	Bank of the Haitian Union
CARICOM	Caribbean Community
CEC	Savings and Credit Cooperative (*Caisse d'Épargne et de Crédit*)
CET	Common External Tariffs
CFI	Investment Facilitation Center
CNC	National Council of Cooperatives
CTG	Technical Management Advisor (*Conseiller Technique en Gestion*)
DDA	Departmental Directorates of Agriculture
DGI	Directorate General of Taxes

DID	Desjardins International Development (*Développement International Desjardins*)
DIGCP	General Directorate of Credit Unions (*Caisses Populaires*)
DR	Dominican Republic
FAPAH	Haitian Agricultural Loan Insurance Fund (*Fonds d'assurance-prêt agricole Haïtien*)
FDI	Industrial Development Fund (*Fonds de développement Industriel*)
FECCANO	Federation of Cocoa Cooperatives of the North
FI/IF	Financial Institution (*Institution Financière*)
FRICS	Rural Solidarity Investment and Credit Fund
FSV	Cofinancing Fund for Agricultural Extension Services (*Fonds de Cofinancement des Services de Vulgarisation Agricole*)
GDP	Gross Domestic Product
HTG	Haitian Gourde
ICCO	International Cocoa Organization
IDA	International Development Association
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
KNFP	National Council of People's Financing (*Konsey Nasyonal Finansman Popile*)
KOFIP	Collective of Popular Financing
LAC	Latin America and the Caribbean
LLC/SA	Limited Liability Company (*Société Anonyme*)
MARNDR	Ministry of Agriculture (*Ministère de l'Agriculture*)
MCN	National Microcredit (*Microcrédit National*)
Mds/B	Billions (*Milliards*)
MEF	Ministry of Economy and Finance
MFI	Microfinance Institution

MUSO	Mutual Solidarity Groups (*Mutuelles de solidarité*)
NFIS	National Financial Inclusion Strategy
NGO	Non-governmental Organization
OPA	Professional Agricultural Organizations
PAR	Portfolio at Risk (*Portefeuille à Risque*)
PE	Small Business (*Petite Entreprise*)
PGF	Portfolio Guarantee Fund
PNSSANH	National Program and Food and Nutrition Security Strategy of Haiti (*Programme National et Stratégie de sécurité Alimentaire et Nutritionnelle d'Haïti*)
PSDH	Strategic Development Plan of Haiti
PSNSSANH	Food and Nutrition Security Policy and Strategy in Haiti
RESEPAG	Strengthening Public Agricultural Services Project (*Projet de Renforcement des Services Publics Agricoles*)
RGA	General Census of Agriculture (*Recensement général de l'agriculture*)
ROA	Return on Assets (*Rendement des actifs*)
ROE	Return on Equity (*Rendement des fonds propres*)
SAE	Business Support Service
SFD	Digital Financial Services
SME	Small and Medium Enterprise
SNIF	National Strategy for Financial Inclusion (Stratégie Nationale d'Inclusion Financière)
SYFAAH	Financing and Agricultural Insurance System (Système de Financement et d'Assurances Agricoles)
TEG	Effective Interest Rate (*Taux d'intérêt Effectif*)
TPE	Very Small Enterprise
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
USSD	Unstructured Supplementary Service Data
VSB	Very Small Business



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This report was prepared by Nathalie Assouline (World Bank Consultant) and Tenin Fatimata Dicko (Financial Sector Specialist, World Bank), who carried out a diagnostic mission to Haiti from August 8 to 18, 2018 and who drafted this document. Their work was coordinated by Juan Buchenau (Senior Financial Sector Specialist) from the World Bank Group's (WBG) Finance, Competitiveness and Innovation Global Practice who was the responsible task team leader.

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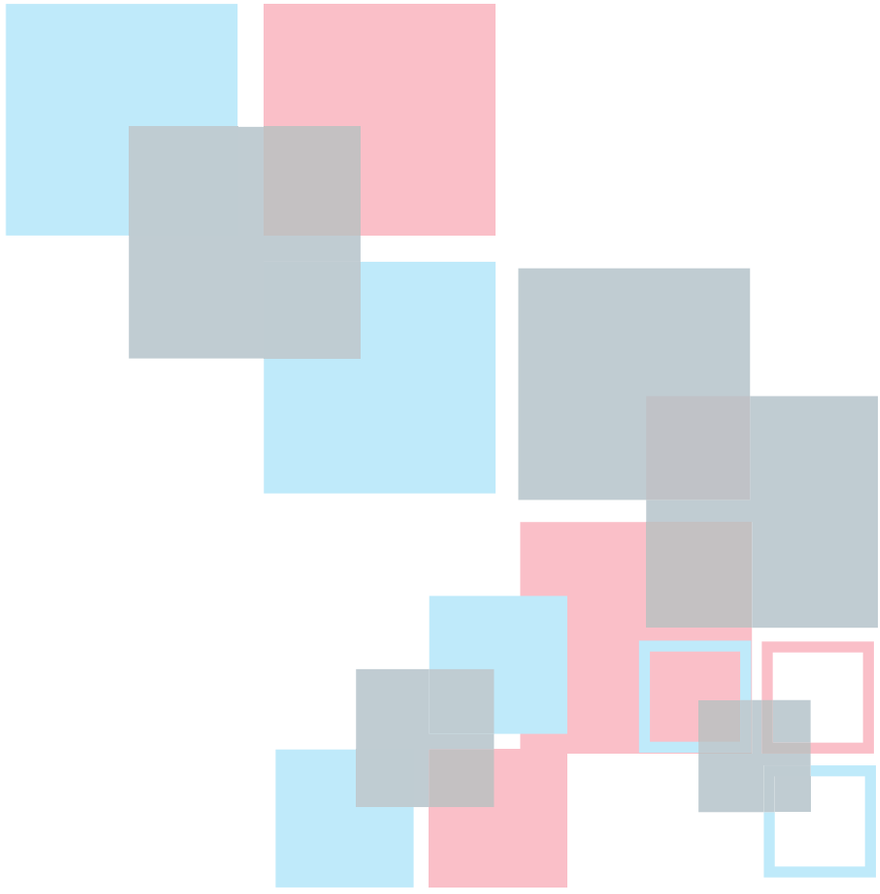


Introduction and Executive Summary

The Bank of the Republic of Haiti (BRH) has requested the World Bank's intervention in analyzing the context of agricultural financing and making recommendations to improve the access of agricultural producers and enterprises to appropriate financial services. This diagnosis is part of the World Bank's technical assistance to the Haitian authorities regarding financial inclusion and financial sector development. Two other reports produced by the World Bank complement this paper, and include: a report about the demand for financial services in Haiti (Haiti Financial Capability and Inclusion Survey, 2018) which is being published, and a diagnostic report concerning the savings and credit cooperatives (Financial Cooperatives in Haiti—A Diagnostic Review of the Sector and its Regulatory and Supervisory Framework, 2017).

The Haitian agricultural sector plays an important social and economic role in the country. It employs nearly 50 percent of the population and contributes to one-quarter of the gross domestic product (GDP). Production is mainly rain fed, and over the last ten years the growth rate has been around 2 percent. Several factors explain this poor performance, particularly the low use of inputs, large parcel fragmentation, low mechanization, high exposure to production risks, and market risks. As a result, only 45–50 percent of the country's food requirements are covered. Haiti is highly dependent on food imports, and imports 17 to 20 times more agricultural products than it exports. As for exports, they are dominated by mango, coffee, cocoa and vetiver. However, these exports lack competitiveness on international markets.

Farmers, numbering just over 1 million Haitians, face low incomes of between $ 100 and $ 200 per hectare (ha), limiting their ability to make productive investments. In addition, their access to formal financial services, particularly to credit, remains very limited and expensive. In fact, only 16.7 percent of rural populations have an account in a financial institution compared to 37.6 percent in urban areas, and only 3 percent have a loan. Yet, indebtedness is significant in rural areas, with nearly 64 percent of the rural population in debt. In addition, 37 percent of indebted rural people are estimated to have an equivalent debt of 2 to 12 months of income, and 23 percent have a debt equivalent to more than 12 months of income. In this context, it is essentially informal lending that makes it possible to finance the various needs of these populations.

Several factors contribute to limiting farmers' access to formal financial services in general and credit in particular. These factors include: the level of organization of most sectors, which remains low with a high proportion of informal actors; lack of adequate collateral (low mechanization of production and fragmentation of land); weak agricultural and rural infrastructure including irrigation infrastructure, roads and lack of local storage solutions; and the low level of financial education. According to the Financial Capability Survey (World Bank 2018), 78 percent of people with low levels of financial education live in rural areas.

The supply of financial services in Haiti comes from a multitude of public and private actors, financial and non-financial, formal and informal; however, only a small number of them serve the agricultural sector. The agricultural sector receives a small proportion of formal credit (0.78 percent of outstanding loans recorded on the Credit Information Office (BIC) database as of September 30, 2018), and the financial services offered are not very diversified. Banking statistics produced by the BRH show a commitment to the agricultural sector of Haitian Gourdes (HTG) 636.4 million (US$ 7.5 million equivalent), involving mainly three banks (Sogebank, Unibank and the Bank of the Haitian Union, BUH). The strategy of the two main banks involved in agricultural credit is to intervene in this area via their microfinance subsidiaries (Sogebank with Sogesol, and Unibank with Microcredit National, MCN) through market segmentation. As for the microfinance sector, that is, the financial institutions sector serving low-income households and micro and small enterprises, it is comprised of institutions such as Limited Liability Companies (LLCs) and mutual funds, and savings and credit cooperatives (CEC). In 2017, these institutions spent about 14 percent of their portfolio financing the agricultural sector. The institutions most involved in agricultural finance are microfinance liability companies (SA) and microfinance subsidiaries of banks. Some institutions (Sogesol, MCN) have developed in-house expertise and a methodology adapted to agricultural financing, to which they devote part of their portfolio (between 19 and 22 percent). With a smaller scope, agricultural financing initiatives are led by networks of cooperatives and Mutual Solidarity Groups (MUSO). Farmers rely on informal financing from "*Madan Sara"* who are mostly informal women traders, some of whom pre-finance producers to ensure their supply of the crops, as well as large traders who lend (cash advances) to farmers, producers and to the *Madan Sara* at rates of 10 to 20 percent on a crop, to be returned most often in kind.

The supply of loans and financial services to agricultural producers by formal financial institutions in Haiti is severely constrained by a number of factors. These factors include: (i) an aversion by banks to assume the significant risks incurred (production, market), that are not mitigated by appropriate measures and arrangements (insurance/guarantees); (ii) a lack of in-house expertise to investigate this type of demand, and assess the risks given the largely informal nature of these activities; (iii) the costs and complexity of this type of financing; and (iv) the small number of farms of a certain size. In addition, microfinance institutions (MFIs) face specific constraints in developing a financing offer adapted to the agricultural sector, including: (i) access to the resource at an affordable cost and for adequate periods of time; (ii) the low profitability of this type of credit despite the interest rates which are considered high; (iii) a lack of technical capacity and expertise in agricultural finance; (iv) the insufficiency of a proximity network (non-bank agents/agents/digital finance); and (v) regulatory constraints preventing SA microfinance institutions from collecting deposits and issuing means of payment.

To overcome this shortfall in private sector financing, public instruments have been put in place to support the financing of the agricultural sector, but their effectiveness could be improved. Public intervention in agricultural and rural financing in

Haiti has existed for some time. Indeed, it has been the subject of various initiatives that took the form of: (a) direct financing instruments (Le Bureau de crédit Agricole [BCA], la Banque ANtionale de crédit [BNC] and le Fonds de développement Industriel [FDI]) and instruments of FDI; and (b) BRH refinancing facilities at concessional rates, as well as regulatory incentives.

- Le Bureau de crédit Agricole (BCA) is one of the oldest established instruments; however, only one-third of its portfolio is devoted to the agricultural sector. BCA management reports that the institution faces serious human resource weaknesses with aging staff and a lack of technical expertise in agricultural finance. The concessional loans offered has benefited civil servants rather than farmers and has a 30 percent delay rate. The new BCA management is considering a two-part stimulus strategy. The first part is based on technical management advisors (CTGs) specializing in farm business financing and targeting well-structured farm businesses seeking a relatively high amount of loan. The second part works through a positioning on the small credit market, specifically through the creation and support of 160 Mutual Solidarity Groups, which would represent nearly 5,125 family farms. This strategy aims to mitigate the weakness of internal technical capabilities by seeking channels for the distribution of credit. The question of the relevance of committing public funds to such a strategy arises because, on the one hand, there are public and private financial institutions in Haiti capable of performing this type of credit. On the other hand, though, the multiplication of intermediaries generates additional needs for strengthening expertise and controlling the use of funding that is not guaranteed.
- The National Bank of Credit (BNC), a public bank, has not been very involved in the financing of the agricultural sector, despite its strengths. Among others, its strengths include BNC's ability to access public resources, its important network of agencies (40) and its recent commitment to digital finance (Lajancash mobile banking service, which has more than 305 agents).

The Industrial Development Fund (FDI), a public instrument under the umbrella of the BRH, maintains advantages for agricultural financing in the country—subject to a clarification of its mandate and a strengthening of its capacities. Indeed, the direct fundraising activity by the FDI on behalf of ministries and/or departmental programs appears to be underperforming. This activity should be evaluated to examine its relevance, as well as its potential counterproductive effects (clientelism, distortion of competition with financial institutions [FIs], etc;). The share of the agricultural sector in the FDI portfolio remains limited, but it is of better quality than the overall portfolio. Reservations must also be expressed about the positioning of the BRH in the FDI, with the BRH playing both the role of supervisor and regulator of the institution, as a single financier and also directly involved in the credit decision (administrator to the credit committee). Recommendations for strengthening and clarifying governance were formulated as part of the transfer of FAPAH to the FDI that is currently being implemented. On the other hand, at the operational level, its limited resources and the diversity of its terms and conditions of intervention between those of direct financier (regular funds), the Governmental financier (special programs) and guarantee fund could harm its effectiveness and efficiency. Because of its mission to support the productive sector, FDI could play a greater role in developing financing for the agricultural sector in Haiti, subject to clarification of its mandate and the involvement of BRH. Projects are underway with the World Bank and the EIB to provide resources (including for agricultural financing) and to strengthen the capacity of the FDI and clarify its governance over the coming years.

In March 2019, the FDI takeover of the Haitian Agricultural Loan Insurance Fund (FAPAAH) initiated under the Financing and

Agricultural Insurance System (SYFAAH) Project is an additional opportunity to commit the institution to agricultural financing, in particular, by encouraging its refocusing around a refinancing mission and portfolio guarantee to encourage financial institutions to sustainably finance the agricultural sector. The FDI is supported with three years of technical assistance from the Frankfurt Institute to strengthen its governance. The BRH also supports the institution in relation to improved governance. The FDI is also subject to internal audit as part of the audit program of the BRH's Internal Audit Unit. In addition, the BRH has allocated specialized human resources, including for budget control. In addition, the BRH is committed to a regular supervision of the Fund in the same way as the other institutions it regulates.

The BRH is involved in the development of agricultural finance as part of its monetary policy aimed at ensuring long-term macroeconomic stability. The desired results include: a reduction in foreign exchange outflows related to food imports; an increase in agricultural and agribusiness exports; and a reduction in the country's vulnerability to external shocks, including price shocks. It has put in place incentives that include the exemption from reserve requirements for bank resources for agricultural credit and two financing facilities—one for export channels and the other, very recently, for agricultural finance. The latter, whose terms are defined in Circular 113, covers all actors in the agricultural value chain. An assessment of the impact of these measures on agricultural financing would be useful in assessing the relevance and the need to maintain, adapt or even develop them. The impact is defined in terms of types of agricultural activities financed and the affected segments, as well as in terms of access for all types of financial institutions. At this stage, microfinance SAs (not yet supervised) seem to be a category of financial institution not yet taken into account. However, according to the data, they are among the most involved in the financing of agricultural production. In addition to specific incentives, BRH's overarching role is to develop appropriate financial sector regulation and supervision of all FI categories in order to promote healthy competition between FIs (fairness to the regulation) as well as to allow for the secure development (prudential and regulatory constraints and effective supervision) of financial services and products by all FIs.

Several development partners have also funded innovative programs for the development of agricultural finance, but their long-term sustainability and deployment remains a challenge. The program that most marks the Haitian landscape in terms of agricultural financing is the "System of Financing and Agricultural Insurance" (SYFAAH) Project financed by the Canadian Cooperation[1] and implemented by Desjardins International, with contributions from the Swiss and the French governments.[2] SYFAAH has developed a comprehensive approach to strengthening expertise and reducing risk in developing agricultural finance, albeit on a small scale and with limited replicability. One of the project's instruments, the Guarantee Fund (Agricultural Loan Insurance Fund, FAPAAH), is an important asset whose sustainability should be ensured by its transfer to the FDI. However, the current pricing structure does not cover the operational costs of the fund. As for the "improvement of the management of agricultural activity" component through the Technical Management Consultants (CTG), it ends with the conclusion of SYFAAH. Due to the lack of a host structure that is able to cover the operating costs of the GTCs, this part of the project ended in December 2018. The public agricultural advisory service is unable to integrate them due to a lack of funding. Structures such as BCA, BNC and FDI were able to integrate some of the GTCs. The crop insurance pilot (ASREC), was implemented within the project. It used an average yield index, but was limited in scope and faced an environment that was not conducive to large-scale deployment. The initiative was conceived as an experiment to demonstrate the feasibility of such coverage in the

country. Thus, the commitment of the insurance companies has been weak. The premium paid by the rice farmers also does not rely on a sustainable economic model because it corresponds to pure risk only, without including the administrative costs that are insured by the project and the reinsurance costs (not foreseen in the device given its small size). Migrating the SYFAAH crop insurance program from the project mode to a commercial mode for the sustainability of the program by Haitian actors also contributes to making this program difficult. In addition, several minimum, commercial and facilitating conditions identified by the project initiator for commercial pilot migration have not been met.

The development and sustainability of an agricultural insurance program in Haiti faces many challenges, including: (i) the lack of a well-defined legal and regulatory framework; (ii) the unavailability of a series of agro-meteorological data over a period of at least 10–15 years; (iii) the lack of appropriate distribution channels to reach producers; (iv) the low level of financial education of the producers; and (v) the consequent public financial support, often translated by commercial premium subsidies, as well as lack of the collection and management of performance data.

The World Bank Group supports the Haitian agricultural sector through numerous projects. In particular, these include the Resilient Productive Landscapes Project, which promotes sustainable land management, and the Strengthening Public Agricultural Services Project (RESEPAG II), which has established a co-financing mechanism for subprojects. It is called the Co-financing Fund for Agricultural Extension Services (FSV) and includes a voucher system to acquire the agricultural goods and services needed for the adoption of technical packages from approved suppliers. It is suggested that FIs be involved in establishing these co-financing mechanisms in order to facilitate the liaison of producers to banks and MFIs / CEC. These FIs will not only be able to manage the disbursement of these subsidies, but will also assist producers in the development of business plans and the mobilization of the counterparts through the implementation of savings programs and the granting of credit. In addition, the Climate Investment and Growth Project supports the use of new technologies, including blockchain for the traceability of payments within the value chain; payments via mobile money within the chain; and the digitalization of the securities register. This project should also contribute to improving access to financial services for project beneficiaries.

On the basis of this diagnosis, recommendations aim to respond to the main constraints identified in order to promote sustainable financing of the agricultural sector by Haitian financial institutions (Table on pages 6–8). These recommendations focus on the supply of agricultural finance, while also recognizing the essential role of general agricultural support policies. It is proposed to rethink the public intervention system Figure on page 9) so that it can mobilized and be complementarily to the private sector through :

- an appropriate regulation and supervision,
- the promotion of a solvent demand through support to agricultural production techniques and farm management.
- a review of the role of public institutions so that they can contribute to reducing risks, to facilitating the refinancing of all types of institutions, as well as to provide support for the development of digital finance.

Summary of Recommendations

Evaluate public financing interventions for the agricultural sector in order to redesign the public interventions system for a significant impact: It is about improving coordination, clarifying the policy framework and overhauling instruments and public finance incentives for agricultural financing.			
Descriptions of Actions	**Priority**	**Deadline**	**Responsible**
Establish a technical unit to coordinate / monitor the various measures and instruments used to support agricultural finance. The unit will be comprised of representatives from the Ministry of Finance, the Ministry of Agriculture, the Caravane, the BRH and the professional associations of banks, the CEC and MFIs.	H	ST	BRH
Conduct an in-depth evaluation of the different mechanisms and rethink the complementary roles that public institutions can play in promoting private sector agricultural finance: • The BNC can play a role in the refinancing of MFIs / CECs and the direct financing of certain productive segments (agribusiness) and priority sectors. • The BCA can support and strengthen producer organizations to strengthen the demand side aspects in association with the Ministry's agricultural officers. • The FDI can support the implementation of the partial portfolio guarantee according to the good practices, as well as the refinancing of the MFIs/CEC. • The BRH, in its role as supervisor of FIs, can support the evolution of regulations for better adaptation. It can also support the implementation of incentives that would be monitored and evaluated to ensure they do not generate market distortions between public and private sectors and between different types of FIs.	H	ST/MT	BRH Government
Conduct a study on the determinants of the interest rate according to targeted customer segments. Define the appropriate measures to be implemented to reduce the cost of credit for the clients of the MFIs and CECs without jeopardizing their durability.	M	MT	BRH
Complete the legal and regulatory framework of the financial sector: Adopt the draft laws on microfinance (after revision), insurance, electronic money, the decree of application for the register of personal security, and proceed to the revision of the law on CECs to improve their professionalization and secure their activities.			
Update bills that have been submitted for adoption for more than two years to reflect recent developments.	H	ST	BRH

Descriptions of Actions	Priority	Deadline	Responsible
Revise the regulatory framework on CECs to enhance security and encourage initiatives in the provision of financial services to rural and remote populations, including compliance of unauthorized CECs and/or activities. Introduce revisions in the areas of minimum capital, governance, capital, transparency and guidance for CFI members. Give the BRH the exclusive role of registration, authorization and liquidation of CECs, as well as the ability to impose financial penalties, revise prudential regulations in order to put more emphasis on the quality of risk management and regulate exchange management; and improve accounting and auditing rules. Establish a certification process for external auditors and maintain a list of certified auditors)[a].	H	ST/MT	BRH
Establish/reinforce the risk-based supervision system for MFIs and CECs, adapted to all categories (including subsidiaries of banking groups and microfinance SA.	M	MT	BRH
Enrich the "agricultural financing" approach with the "financial inclusion of rural populations". A rural finance approach that is broader than agricultural credit would reach a wider range of populations. As such, it aims to diversify the supply of financial services (savings, credit, payments, electronic money, money transfers, and so on) to contribute to better financial inclusion of rural populations.			
Support the development of e-money services and the use of non-bank agents through digitization of state payments to rural populations, as well as payments within value chains of agricultural products (especially exports).	M	ST/MT	BRH Ministry of Finance Public Treasury
Strengthen the technical and financial capacities of financial institutions to enable them to take advantage of the development of electronic money by integrating into digital finance and developing their network of agents.	M	MT	Projects Technical Partners FIs
Provide technical assistance to financial institutions to adapt and develop a diversified supply of financial products for agricultural and rural finance.	H	ST	Projects Technical Partners FIs
Revise the regulations to allow for the adoption of a wider range of financial services, in particular the collection of deposits and the provision of payment methods (especially digital) for non-bank affiliated MFIs.	H	ST	BRH

Descriptions of Actions	Priority	Deadline	Responsible
Improve the availability and use of risk management tools for financial institutions.			
Evaluate and adapt the planned partial guarantee scheme within the FDI, ensuring compliance with good practices.	H	ST	BRH FDI
Establish the prerequisites for the development of a sustainable national agricultural insurance program including: a public-private partnership with incentives for both demand (producers) and supply (insurance companies).	H	MT	BRH Government Insurance companies
Strengthen demand from the agricultural sector through support for agricultural production techniques, farm management and financial education.			
Refocus the interventions of the Ministry of Agriculture on technical support for producers and assistance to farmers' organizations, agricultural groups and cooperatives.	H	ST/MT	Ministry of Agriculture
Rethink the BCA system, given its limited resources and expertise. Focus its intervention on the Council to improve the solvency of the projects, as well as the support needed to obtain better access to financing for the organizations of producers.	H	ST	Ministry of Agriculture
Strengthen the capacities of agricultural cooperatives (for example, governance, operational management, financial management, improvement of agricultural practices, preparation and dissemination of data sheets, and so on) through technical assistance projects.	H	ST/MT	Ministry of Agriculture
Establish financial education modules that contribute to the increased adoption of formal financial products and services, including those pertaining to digital finance.	H	ST	BRH
Support the professionalization of *Madan Sara* through the establishment of a collective/association.	M	MT	Ministry of Commerce

Source: WB mission

Note: BCA = Crédit Agricole Bureau; BNC = National Bank of Credit; BRH = Bank of the Republic of Haiti; CEC = Savings and Credit Cooperatives; CFI = Investment Facilitation Center; FI = financial institution; FDI = Industrial Development Fund; MFI = microfinance institution; H = High priority; M = Medium priority; MT = Mid-term; ST = Short-term.

[a] For more detailed recommendations see "Financial Cooperatives in Haiti - A Diagnostic Review of the Sector and its Regulatory and Supervisory Framework", World Bank, 2019a.

Rethinking Public Intervention in Agricultural and Rural Finance

Today: Public "duplicate" interventions that compete with the private financing offer

Vision: Complementary public initiatives that mobilize private financing

Promote a solvent demand

MARND: agricultural accompaniment

BCA: Business Management Support

Mobilize the offer of private financing

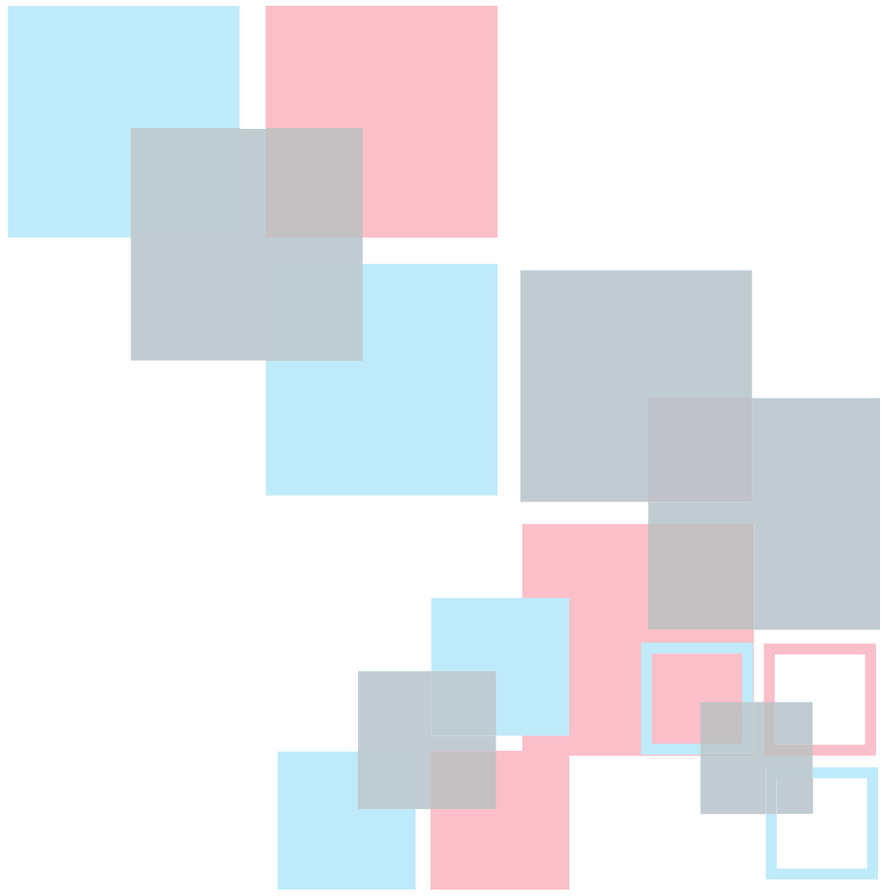
FDI: risk management and refinancing

BNC: refinancing and support for digital finance

Ensure proper regulation and supervision

BRH: Regulations and supervision of FIs

Source: WB field survey.



The Agricultural Sector in Haiti

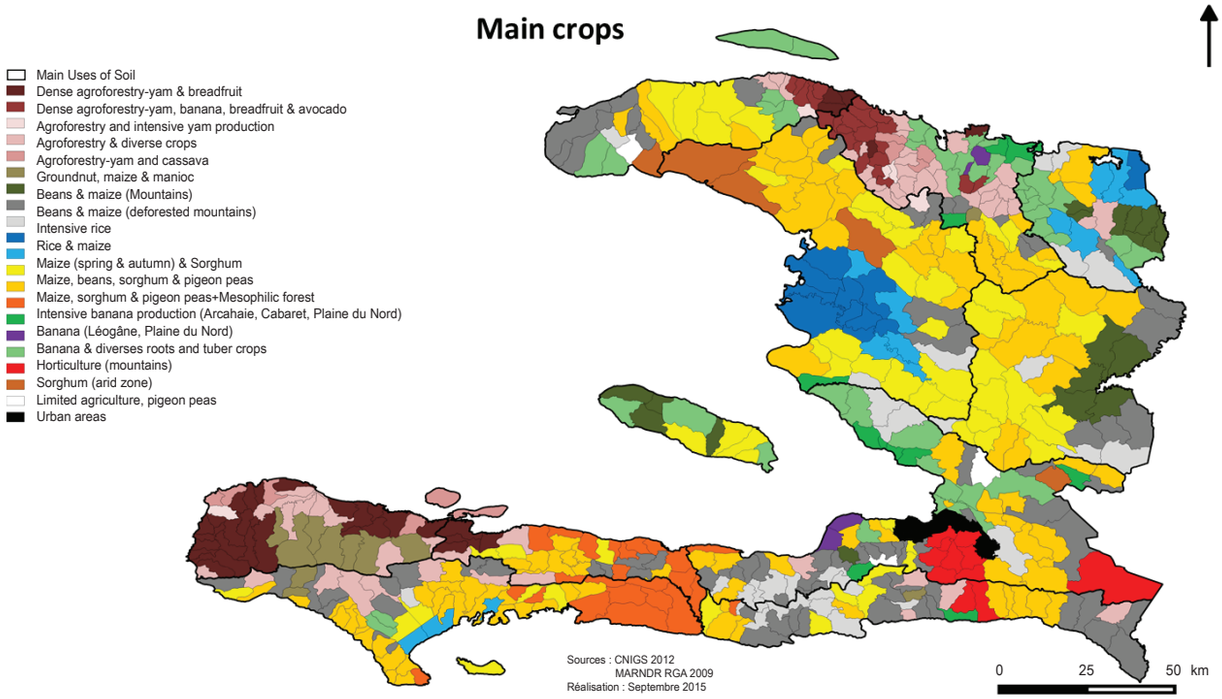
Agriculture: A Decisive Sector in the Haitian Economy

Agriculture occupies an important place in the Haitian economy, contributing about 20 percent of the country's GDP, occupying more than 50 percent of the active population, and constituting the main source of income for rural populations. The country has a variety of ecosystems and microclimates, enabling the cultivation of a variety of crops throughout the year, as well as production over three agricultural seasons per year. (Map 1). The main food crops include rice, maize, sorghum, beans, peas, sweet potatoes, yam, cassava and plantains. The cash crops include mainly mango, cocoa and vetiver, with attempts at coffee production.

The agricultural sector is vulnerable to climate shocks, with the attendant prospect of declining yields for all crops. Haitian agriculture is mostly rain-fed, and it is vulnerable to hurricanes, tropical storms, floods and droughts. According to the International Fund for Agricultural Development (IFAD) (2012), since the 18th century, 140 hazards have affected Haiti. Of these hazards, 84 percent are hydro-meteorological phenomena and droughts (CIRAD 2016). A major disaster affects Haiti every 5 to 7 years, and an internationally recognized disaster every 2 years. Added to this is the deterioration of the environment (water soils, forests). The area cultivated has increased to the point of exceeding by 20 to 30 percent (MARNDR (2010) those areas suitable for agriculture[3]. According to the Ministry of Agriculture (MARNDR) (2011), about 85 percent of the country's watersheds are degraded or have been transformed very rapidly, causing frequent flooding in the country. Soil erosion is estimated at about 12,000 hectares (ha) per year MARNDR (2011). The United Nations Development Programme (UNDP-HT 2015) and Tufts University (Bueno and others 2008) estimate that the cost of climate change vis-à-vis the agricultural sector in in Haiti could be equal to 10 percent of this year's GDP by the year 2025[4]. They also point to declining yield prospects for all crops, and up to an 87 percent decline by 2100 for bean cultivation.

The growth of agricultural production in Haiti is constrained by low productivity. During the last ten years, the average annual growth rate of the agricultural sector has been around 2 percent. According to FAOSTAT (2014),

Map 1: Production Areas of Major Crops



Source: CIRAD (2016).

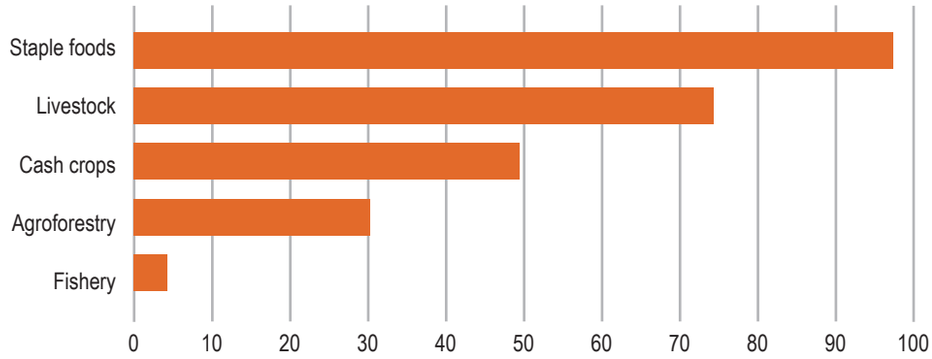
the yield per hectare in Haiti is 900 to 1,000 kilograms (kgs), whereas in the Dominican Republic it is 3,500 to 5,000 kg/ha. Several factors contribute to this performance gap. Among other things, these include: (i) a low recourse to the use of agricultural equipment (with about 500 tractors in Haiti, unlike neighboring Dominican Republic which has more than 20,000) (Docteur and Claude 2014); (ii) the low use of fertilizers by Haitian producers (35,000 tons of fertilizer, or 15 times less than the neighboring country); (iii) weak agricultural and rural infrastructure, including irrigation infrastructure and roads (the irrigated area is about 75,000 ha or about 7 percent of lowland land, and the road network, estimated at 3,400 kms, [80 percent] is in a poor state) (MARNDR 2011); and (iv) the fragmentation of agricultural areas.

The Multipurpose Family Farm: The Basis of Agricultural Production in Haiti

The diversity of agro-ecological environments in Haiti allows the vast majority of farmers to diversify agricultural activities to minimize risks, particularly those related to climate. In fact, an agricultural household cultivates about five crops and combines their farming activity with mainly livestock (World Bank 2014). (Figure 1 and Box 1).

The average agricultural areas exploited are small and the parcels are fragmented (Table 1). According to the last general census of agriculture (2012), Haiti has 1,018,951 farms with an average of less than 1.5 ha (MARNDR 2010) of land (an average of 0.77 squares, spread over an average of

Figure 1: Household Agricultural Production Activity



Source: World Bank (2014a).

Box 1: Diversity of Agricultural Activities according to Agro-ecological Environment

In dry and semi-arid zones: maize-sorghum-pigeon pea combination with variants (unknown peas, peanuts, cassavas and sweet potatoes), and fruit trees (mangos, coconuts, cashews and tamarinds).

In humid and semi-humid plains and plateaus: basic combinations of maize-sorghum-sweet potato-manioc-congo pea and banana in the wettest plains; cane-to-sugar in some well-drained areas; and fruit species (mango trees, avocados, citrus and breadfruits).

In the irrigated plains: cereals, mainly rice and maize, plantains and a wide range of vegetable crops.

In humid and very humid mountain areas: maize-bean-sweet potato association with a coffee system in some places (in decline for a few years due to diseases) in association with banana trees.

In higher elevation zones: market gardening crops (however, their extension and development are closely linked to the existence of pathways that make these areas more or less accessible).

In all environments: livestock is often associated with agricultural production activities. Goats mainly in dry areas; cattle and pigs in wetlands; pigs in humid and very humid mountain areas.

Source : Chancy, M., 2017

Table 1: Overview of Agricultural Areas and Average Production per Farm and Crop Type

Productions	Number of Farms Involved	Surface Cultivated (ha)	Average Surface (ha)	Number of Seasons	Average Annual Production (Metric tons, (MT)	Average Production/ Operation (TM)	Average Annual Imports (TM)	Annual Exports (TM estimated)
Rice	+ 130,000	+75,000	0.58	3 irrigated	136,097	1.05	479,988	10–15,000
Maize	733,698	393,076	0.53	3 pluvial	307,824	0.42	18,000	10,000
Sorghum	316,939	126,774	0,40		108,880	0.34	—	—
Haricot	406,757	247,064	0.61	3	98,427	0.24	18,575	—
Congo Peas	475,118	108,629	0.23		63,762	0.13	—	—
Unknown peas	150,638	34,331	0.23		31,521	0.21	—	—

Source: Chancy, M., 2017
Note: TM= metric ton.

1.8 parcels) (Republic of Haiti 2018). Half of the farms exploit less than 0.5 squares. Eighty-two percent of plots are cultivated by farms, and directly by the owner. Sharecropping, most often of the "half-and-half" type, occurs on only 8.2 percent of the parcels grown. According to the General Census of Agriculture, the legal status of the majority of plots cultivated, that is, 52.8 percent, is by purchase title, whereas only 38.6 percent of plots are obtained by inheritance. The remaining land (8.6 percent) is either jointly cultivated or owned by the state or church. Women as heads of households operate 257,670 farms, that is, 25.3 percent of the farms recorded throughout the country, occupying an area of 193,944 ha, that is, a smaller average area.

The growth of the agricultural sector will come from farmers engaged in family farming and, in particular, from the farms growing the most in surface area and with the means to invest in the intensification of agriculture (Republic of Haiti 2018). Thus, the 52 percent of farmers with more than 0.5 squares (0.65 ha) are the engines of agricultural growth. These farms are also market-oriented, whereas the smaller farms are geared toward self-consumption. The General Census of Agriculture (RGA) estimates that 40 percent of farms are oriented toward self-consumption and 60 percent toward the market (that is, the sale of production).

"Thus, the typical farmer at the center of PSNS-SANH's agricultural growth strategy is characterized as follows:

They have between 0.5 and 3 square hectares;

- *They typically raise a cow or pig, 2 goats and 13 hens or other poultry;*
- *There are 25 to 55 years old;*
- *They cultivate their plots themselves and, if necessary, increase their acreage by share-cropping or by cultivating, without authorization or counterpart, [utilizing] the plots of absent owners;*
- *They cultivate plots . . . [for] which they obtained the majority through purchases;*
- *They are dynamic and market most of their production;*
- *But they do not have a high level of education, limiting the joint management of resources through the associative or cooperative environment."*

Agricultural Production: Local Market-oriented, but Insufficient to Meet Demand

Agricultural production is mainly for the local market. According to the General Census of Agriculture (2012), 38 percent of the sown areas is dedicated to cereals (maize, rice, sorghum), 28 percent to protein crops (beans, Congo peas, unknown peas and peanuts) and 19 percent to food (bananas, cassavas, potatoes, yams). The study on the agricultural sector conducted by CIRAD in 2016 (Table 2) indicates that bananas, roots and tubers (food), legumes (beans, peas, cowpeas and groundnuts), cereals (maize, rice and sorghum) and livestock are important sources of income for farmers.

Despite concentration on the local market, agricultural sector production accounts for only 45 percent of the population's food needs, thus creating a significant dependence on imports. By including all agricultural and derived products, Haiti imports 17 to 20 times more agricultural and derived products than it exports, totaling more than a billion dollars. These imports of food products and derivatives account for 30 percent of the country's imports (CIRAD 2016).

> *Today, between 45% to 50% of the food consumed in the country comes from domestic production. For some sectors, imports predominate, for example: rice (75% imported), sugar (90%) wheat (100%), dairy products (75%), oil (95%), eggs (70%), industrial chicken or broiler (85%). But for other sectors, domestic production is very competitive, for example: beef (locally produced 95%), goat meat (100%), peas and maize (80%), sorghum/ pitimi (99%), fish (50%), fruits and vegetables (75%). These competitive national products must be considered strategic and must therefore be protected (Chancy 2017).*

In addition, "There are high growth rates for imported products such as palm oil or broiler chickens, homegrown products such as sweet potatoes, legumes and to a lesser extent cassava and sorghum. These products can be considered as potential vectors of a strategy to support the agricultural sector." (CIRAD 2016)

Livestock farming, although widespread, does not have the necessary infrastructure for the processing and marketing of dairy products; however, there is local demand for these products, which is being met by imports. Livestock (cattle, goats, pigs and poultry) satisfy most of the country's demand, except for the demand for eggs, dairy products and industrial poultry meat. These are also part of the country's important food imports. More than 90 percent of the meat produced in Haiti comes from small family farms (cattle farming is practiced on about 450,000 farms, and goat and sheep farming on 600,000 farms). The low availability of grain and fodder, especially during the dry season, makes the cost of commercial farming prohibitive. As a result, intensive livestock units have developed very little (PSN SSANH, June 2018). This activity is important in the Haitian agricultural production system because it is both a way of saving for producers and a source of income. In addition, the production and marketing of dairy products is at a very early stage. "Locally produced milk is generally not processed, is self-consumed or is sold raw, and only covers 20 percent of current consumption needs" due to a lack of adequate infrastructure and sufficient processing companies.

To date, the importance of food imports reflects a national policy more favorable to imports than to increased domestic production. Food imports have tripled since 1995 and are following the increase in the urban population (also tripled over the same period). This increase in agricultural imports results not only from the increase in the urban population, but also from political choices (particularly tariffs) that

Table 2: Areas Planted and Raw Product Crop Producers

	Number of hectares surveyed	Yield Tons/hectares	Price (approx.) USD/ton	Gross farmer product in millions USD
Fig-Banana and Banana-Plantain	97533	6,5	350	222
Haricots (butter, bean, black, red)	247064	0,6	900	133
Livestock – cattle	(1103528)			131
Maize	393076	0,8	405	127
Livestock – Pigs	(1093687)			109
Yams	59186	3,5	400	S3
Potatoes	65942	3,6	340	81
Rice	75859	2,2	440	73
Charcoal and fuel wood	—			72
Livestock – goats	(2104960)			62
Avocados	(2096506)		315	53
Sweet cassava	40685	3,6	350	51
Congo Peas	108629	0,6	610	40
Trees*	(1522211)		300	37
Sorghum	126774	0,9	310	35
Bitter Cassava	33980	3,5	240	29
Coffee	25000	0,35	3200	28
Peanuts	50403	0,5	950	24
Sugar Cane	31911	40	18	23
Unknown Peas	34331	0,7	600	14
Mango	(392000)		420	13
Cocoa	4967	0,65	3500	11
Livestock–Sheep				9
Cabbage	7286	3	330	7
Livestock–Chickens				5
Estimation – other Agricultural Sectors				90
Total				**1563**

Source: CIRAD, 2016
* (in parenthesis): number of trees or heads (livestock)

Box 2: Increasing Poultry Farming

National demand for eggs from intensive farming is estimated at 30–40 million eggs per month. Today, imports cover 71 percent of these needs and national production the remaining 29 percent. However, the sanitary restrictions placed on the importation of Dominican eggs and the changes made to the Haitian government's tariff policy since 2011 have created a favorable momentum for the revival of Haitian poultry farming and the gradual recovery of the local market by entrepreneurs. This has allowed for an increase in recent years, thanks to the important private investments made in the sector (about US$10 million in production farms, hatcheries, food factories, poultry slaughterhouses, and so on). National egg production has increased from 1 million to more than 10 million eggs per month.

Source: PSN SSANH, June 2018

are very favorable to imports. As part of the National Policy and Strategy Paper on Food Sovereignty and Security and Nutrition (PNS SANH 2018), the objective of "Reforming Trade Policies and the Tariff Profile of the nation to prioritize the interests of food sovereignty and security and nutrition over the interests of international trade (Pillar 1.1- Trade Policy and Tariff Profile)" is included. This entails the gradual application of the Caribbean Community (CARICOM) Common External Tariffs (CET) and the establishment of an advisory working group on agricultural tariffs involving the ministries concerned, as well as the private sector and civil society.

The BRH, considering the promotion of promising agricultural sectors as a main axis of the recovery policy of the agricultural sector in Haiti, commissioned several studies related to the sector, and also facilitated a dialogue from 2016–2017 between the actors of several value chains that act as carriers. In particular, this support from the BRH aims at identifying the main obstacles that hinder the development of promising sectors, making financing risky and costly. It also establishes a set of specifications for the minimization of these brakes. Some sectors have been described as carriers because they can play a major role in the food and nutritional security of Haitian families, as well as in the protection of the environment. These sectors are also important for income generation for farms and entrepreneurs involved in agri-food processing and for the contribution they make to foreign exchange for the economy (PSN SSANH , June 2018).. PSN SSANH also identified the following sectors targeting national markets as having the highest potential for growth: (i) maize and beans in particular, as well as sorghum, plantains, tubers and other legumes; (ii) intensively-farmed chicken for meat and eggs, as well as pork, sea fishing and aquaculture. The analyses highlight the exceptional potential of the maize or sorghum cluster intercropped with beans, in connection with the production of intensive chickens for meat and eggs. The by-products of maize and sorghum milling are also indispensable inputs for raising chicken (and pork).

Export Production: A Small and Declining Share of Agricultural Production

Haiti exports very few agricultural products (essential oils, mangoes, coffee, cocoa, crustaceans, and rum) with a value of approximately US$50 million (PSN SSANH, June 2018). Informal exports to the Dominican Republic (DR) can be estimated at around US$ 13 million (Damais and Bellande 2005), but they are little known and the volumes crossing the border fluctuate. They

include rice, maize, beans, cattle (goats), avocados, mangoes, and so on, depending on climatic conditions and price changes.

The main export channels (mangos, with marginally cocoa, coffee and vetiver) involve a significant number of small farms but they suffer from a lack of competitiveness due to many factors, some of which relate to the organization of the sectors.

- **The export of Haitian mango is limited to three US markets and suffers from a lack of investment in mango packaging technologies.** In 2016, the production of Francisque mango (for export) was 185,940 tons out of a total production of 596,380 tons for the other varieties of mango. It involved about 150,000 to 200,000 producers out of the 500,000 mango producers. Ninety percent of the volume of mangoes exported (worth HTG 900 million, or US$ 12 million) in 2017 came from farmers who own an average of three trees. The marketing of mango for the local market seems to be controlled by *Madan Sara*, unlike that of the more organized export mango market. According to a study of the Haiti-Hope project, the export of mangos is controlled by 8 exporters organized in a cartel, the National Association of Mango Exporters (ANEM) (Republic of Haiti 2018). In the Francisque mango export circuit, the first contact link with the producers are the out growers who buy the mangos on behalf of the suppliers-wholesalers. They make cash advances on production to producers or even pre-harvest purchases. Before the campaign, some suppliers provide training to producers regarding the quality of the product in order to reduce the rejection rates. They train gatherers, vaulters or sub-suppliers and growers on picking, pruning, storage and packing techniques. The last link in the chain are exporters who buy from suppliers, and associations or cooperatives of local producers. Exporters provide for transportation, storage, packaging, calibration, crating and export. "Thus, the access of 200,000 Haitian producers to the US market today depends entirely on the disposition, skills and resources of eight mango export houses. In the current structuring of the sector, it is unlikely that the Haitian industry survives the Dominican competition, especially as the Dominican Republic is currently investing in treatment basins in order to capture US market shares" (Republic of Haiti 2018).
- **Coffee, which accounted for nearly 40 percent of Haitian exports in the 1970s, currently accounts for less than 1 percent of exports (that is, 0.4 percent) and production is consumed locally** (CIRAD 2016). "Between 2014 and 2015, 80 percent of production was wiped out by uncontrolled attacks of orange rust, bark beetle and drought. While coffee exports accounted for US$ 4 million in 2014, they fell to less than US$1 million." (CIRAD 2016). Coffee has often made way for mountain beans, which have a good price on the national market. Coffee production that would involve more than 200,000 families is performing very poorly compared to global and sub-regional averages[5]. The annual expenditure on coffee plots is estimated at HTG 21,972; however, it is necessary to triple this amount[6]. Attempts are currently underway to revive this production by introducing coffee plants of more resistant varieties, but at this stage production is consumed locally. Producers sell their coffee either to cooperatives and associations that bring together nearly 50,000 producers through four marketing networks, or intermediaries of traditional channels.
- **Cocoa, which has also seen a notable drop in exports over the last 30 years, has started to rise again, notably through the establishment of producer organizations.** The annual production of about 5,000 tons mobilizes about 20 to 25,000 families. They grow their crops on a total of 15 to 20,000 hectares, and export 98 percent of their product. However, the yield per hectare in Haiti remains well below neighboring coun-

tries (at 250 kg as compared to 3,000 kg in some Latin American countries with the same agro-ecological conditions) (UNEP 2016). Haiti is not recognized by the International Cocoa Organization (ICCO) as one of the finest and most aromatic cocoa exporters. This is due to the fact that the quality of Haitian cocoa varieties is not valued; only 5 to 8 percent of the beans are fermented, and the genetic heritage is not mastered. Thus, the export of unfermented Haitian cocoa beans, simply dried in the sun, is destined for the low-end market. Prices of Haitian cocoa sold on international markets are among the lowest in the world. With the creation of the Federation of Cocoa Cooperatives of the North (FECCANO), producing and exporting fermented cocoa has allowed a higher margin for producers, as well as an increase in exports. The cocoa produced by FECCANO and other recently created cooperatives could soon be recognized by the ICCO.

- **Vetiver is the only export sector that has managed to maintain and grow over the past 30 years** (Republic of Haiti 2018). Haiti is today the largest producer of vetiver essential oil in the world, with a production of about 100 tons per year. The industry employs between 30,000 and 60,000 producers, mainly in the Southern Department. Vetiver is planted in the hills, which are often in low fertility. The environmental impact of vetiver cultivation, particularly in connection with root harvesting methods, raises questions about the sustainability of the sector. Vetiver is the crop that generates the most income for farmers in the South. According to a United Nations Environment Programme (UNEP) study (2016), vetiver growers would earn an average income of US$ 1,035 per hectare for one harvest every 2 years (or just over US$ 500 per year). These incomes compare favorably with the average income of food crops, which generally range from US$ 100 to 200, and occasionally US$300 per hectare.

Agricultural Value Chains: Reliance on Highly Competitive Networks of Mostly Informal Buyers

The proper functioning of the local agricultural products marketing chain is today an essential element of the growth of the agricultural sector (PSN SSANH, June 2018)**.** "In 2015, 52 percent of the population lived in urban areas, whereas the projections for 2030 indicate that 62 percent of the population will live in urban areas—if the PSN SSANH is not implemented analysis of context). Thus, during the 1980s, almost 80 percent of consumers were located directly in production areas, whereas today, more than half of consumers are in the city, far from agricultural production areas."

For most agricultural products, the marketing of products seems to be subject to fairly strong competition between formal and informal players because of the limited national production, the low level of sectoral organization, and the importance of informal financing. In most agricultural sectors destined for the local market, marketing is controlled by the *Madan Sara* who buy from farmers (and to whom they sometimes pre-buy the harvest) (Box 3). Supply chains are generally long, with high transport and handling costs in relation to the small volumes of production collected and the isolation of the production areas. The commodities are sold raw or are generally processed by small rather informal enterprises (ground corn, pitimi, husked rice) including by *Madan Sara*. "However, large agribusinesses prefer to import these same commodities because: (1) the delivery price for imported products is lower, (2) they can buy large volumes, and (3) the delivered product has benefited from better quality control (better drying, control of mycotoxins)"(UNEP 2016).

In the peanut sector, Acceso[7], a sole wholesaler in this sector, buys peanuts on the local market to sell to processing companies (small and medium enterprises [SMEs] in the food industry, Rebo, Selecto, Montou Production, and so on) and

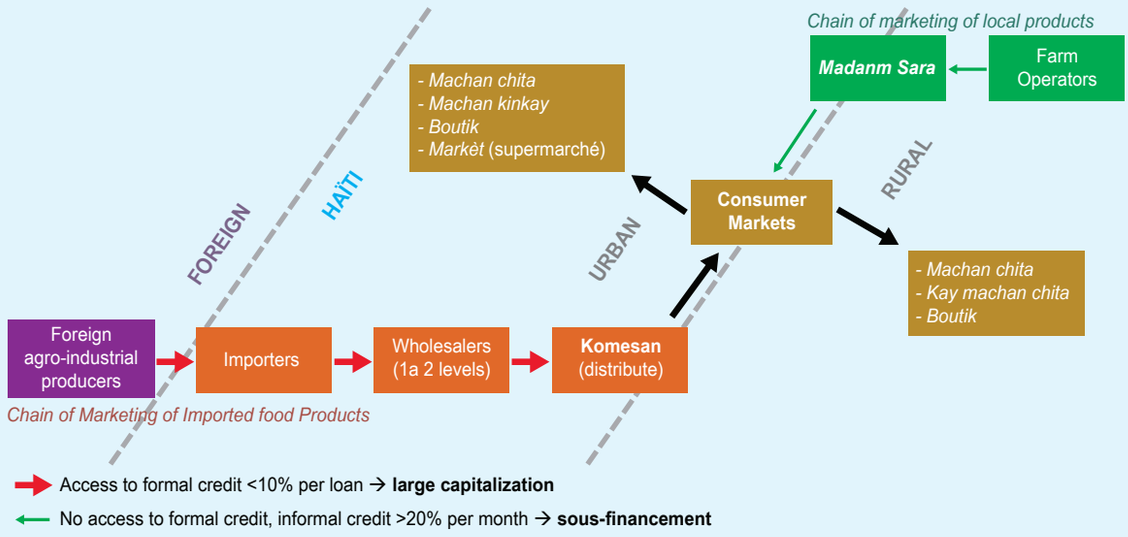
Box 3: The Madan Sara: An Essential Player in Marketing Agricultural Products in Haiti

The *Madan Sara* are the main actors in marketing the agricultural production of small producers. Their number can be estimated at about 100,000, with variations between harvest periods. They work most often in their area of origin. In rural areas, many families have an active member as Madan Sara. They perform the function of aggregating food products at the point of production and transporting them to consumer markets. They can sell them to "Machann" who then carry food products close to the consumers for retail sale. Some also handle food processing by renting out small grinding mills, which they sell on the local market.

The volume of operations of a *Madan Sara* depends on its ability to finance transactions. In regional markets, they have working capital of between HTG 2,000 (small-*Madan Sara*) to 1 million HTG (large-*Madan Sara*). The strong competition between them encourages them to go back to the producers and to buy the products directly from the fields in order to guarantee their supply. Contacts between the producer and the *Madan Sara* are made by phone a few days before the harvest. Sometimes, to reserve a market share, they pay advances to farmers a few weeks before the harvest.

Source: PSN SSANH , June 2018.

Simplified Illustration of the Two Marketing Chains for Local and Imported Food Products



The informal marketing chain of *Madan Sara* and Machann operates with very low, competitive transaction costs. This also explains their low incomes (a typical *Madan Sara* lives on less than US$ 2 / day and is part of the country's 59 percent of the poor). However, it allows them to dominate the marketing chain with almost all of the agricultural production marketed in informal markets, rather than in shops or supermarkets (Figure 4).

Strong competition between the buyers generally benefits the producers (except in the case of localized overproduction). Farmers capture between 50 and 70 percent of the retail price for agricultural products requiring agro-industrial processing (rice, maize, sorghum, and groundnuts) and close to 80 percent for products that do not require processing from the producer to the consumer (beans, plantains). Knowledge of reference market prices is essential in the negotiations. Thus, the use of mobile telephony and the activation of family networks with members who have migrated to the city are essential for producers. However, *Madan Sara* do not always have the financial capacity to buy the entire crop from producers in the event of production peaks, price collapses, or even instances of below production costs. In addition, producers generally do not have adequate infrastructure for 'food storage', thereby limiting the possibility of postponing sales.

Source: Republic of Haiti (2018).
Note: The reference market influencing the prices of local products is the Croix des Bossales market in Port-au-Prince. The most influential *Madan Sara* operate in this market. They buy stocks in the most accessible markets to sell in major consumption centers such as Port-au-Prince, Cap Haitien, Gonaïves, and so on. These intermediaries are the pivots of the Haitian agricultural trade. (USAID 2010).

non-governmental organizations (NGOs) producing nutritional pasta (MFK, Zamila health). It faces competition from informal buyers (*Madan Sara*) and price volatility for this commodity. The comparative advantage claimed by Acceso from its buyers is its ability to regularly supply fixed quantities of large quantities of peanuts for which it guarantees quality (without aflatoxin). With regard to producers—and to counter the competition of informal buyers—their approach is to try to retain them by providing technical support. Also, depending on the case, they provide improved seeds and phytosanitary products and place warehouses nearby to reduce the cost of transporting peanuts for the planter. On both sides of the chain, Acceso establishes contracts, including sales contracts guaranteeing quality. It also provides traceability, fixed prices and quantities to buyers, and purchase contracts to producers setting the quantities, the minimum purchase price and the quantities of peanut to be reimbursed in kind if the advance of seeds and phytosanitary products has been made. For example, for 32 kg of advanced local seed, the post-harvest reimbursement is 50 kg (a ratio of 1.5 after 4–5 months). Since 2014, at the start of its activities, Acceso has been able to involve more than 3,600 producers in this system, purchasing 500 tons of peanuts from more than 2,300 farmers. The challenge for this company, which has not yet reached its break even, is to ensure a supply of groundnut, including stable quality and sufficient quantities to meet the demand of processing companies. It limits its in-kind advances for reasons of limited resources, but also relatively frequent risks of parallel sales and attendant default of repayment. This effectively reduces its capacity to contribute to better quality and productivity. The competition of *Madan Sara* and other informal buyers is due to their proximity (social and geographical) to producers. Acceso also tries to compete through a greater presence of its agents in the field (and has voluntarily limited its radius of intervention) and cash advances through pre-purchase of crops.

In the sorghum sector, the production of which was decimated in 2015 due to a parasite, Etoile du Nord (in partnership with the Heineken group) is trying to revive the sector with the introduction of a new, more resistant variety. Through a contract with individual producers (about 2,000 currently), the company provides the seeds (10 kg/square or about HTG 14,000), support and technical monitoring of production activities to ensure production in terms of volume and quality. It also brings producers and MFIs and/or savings and credit cooperatives closer to the place for granting a campaign

credit (financing of plowing, sowing, weeding and harvesting). The contract between the company and the producer provides a guarantee for the purchase of the first ton at a price fixed in advance. Thus, it ensures the repayment of the credit by direct payment to the producer's account. The purchase price of the additional quantities is set at a lower price (approximately HTG 23,000–28,000 per ton). For a cultivated square (about 1.29 ha), the necessary funding would be about HTG 30,000. The first ton purchased at a guaranteed price of HTG 40,000 covers the repayment of the credit (30,000 plus interest over 4–5 months, between approximately HTG 3,000 and 4,000). A square can produce 4–5 tons of sorghum with this seed quality as compared to 1.5 tons with traditional seed. This apparently small-scale experiment seems to be more conclusive than the direct pre-financing of the campaigns by the acquiring company because of the significant cases of parallel sales. Competition from *Madan Sara* is strong, with the widespread practice of pre-buying the crop at a pre-agreed price that allows producers to benefit from cash flow in advance.

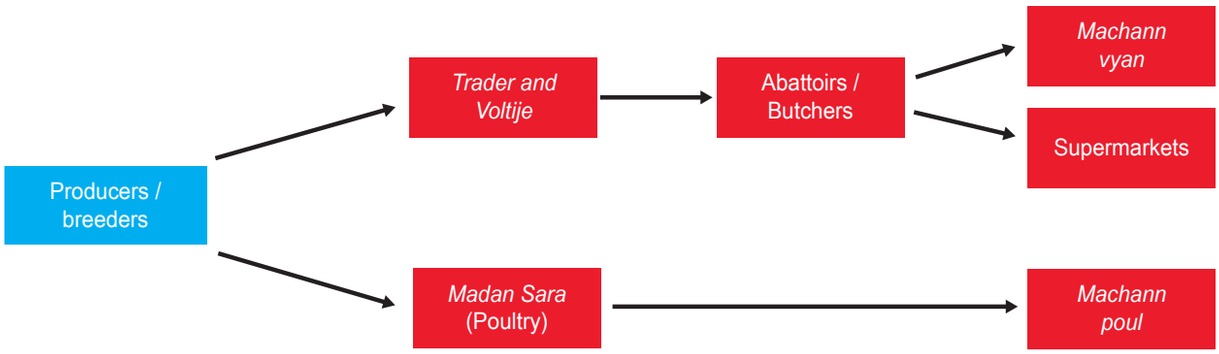
Rice marketing also involves local and urban *Madan Sara*, large traders, processors and retailers. The local *Madan Sara* groups supply the rice by buying it from the producers at the time of harvesting and conditioning it (drying, cleaning and dehulling). They do not have storage facilities and therefore resell it quickly to other actors in the chain (such as large traders and urban *Madan Sara*) with low margins per transaction. Large traders, who have cash, lend (cash advances) to producers and *Madan Sara* at rates of 10 to 20 percent on a campaign, to be returned in kind. Their margins are important because their main activity is storage at harvest and resale when courses are at their highest level. The urban *Madan Sara* ensure the supply of the Port-au-Prince market and the other cities. They also make the link between the markets of the zones of production and the urban markets. They buy stocks either from big, local traders or local *Madan Sara*. A rice mill recently installed in the Artibonite zone testifies to this competition, given its difficulties of gauranteeing regular supply and satisfactory quantities to ensure the yield of the company.

Regarding the animal products sector, breeders who sell their live animals according to their cash requirements manage to capture about 60 to 70 percent of the retail price (Republic of Haiti 2018). Traders who make the link between bundling markets, consumer markets and butchers must shorten the marketing channel as much as possible because of the transit costs of live animals and the perishability of animal products (meat, eggs, and milk). Traders buy animals (cattle, goats and horses) on the aggregation markets to transport them to consumer markets. They manage to reach a net margin varying between 25 to 30 percent in 4 to 5 days. *Madan Sara* control the marketing of poultry and attain higher margins estimated between 35 to 45 percent. However, they face higher risks given the fragility of poultry and the vagaries of marketing. They also operate with less working capital. Traders, on the other hand, are eligible for formal credit, which is more advantageous (Figure 2).

In the dairy sector, since 2002, there have been some thirty independent companies (owned by producer associations) that manufacture and market dairy products under the unique "Lèt Agogo®" label[8]. This label was created by an NGO, Veterimed, to promote the production and marketing of processed milk products by small milk producers. It is based on rustic technologies adapted to the Haitian context, according to a set of specifications. A NGO also provides technical assistance. One of the strong constraints faced by these companies is the financing of adequate equipment for good conservation of milk and processed products.

From these examples, levers for public intervention can be identified that would help promote formal financing within and outside of value chains. For example, these could include: (i) promoting buyer/processor firms that provide technical

Figure 2: Marketing Circuit for Products of Animal Origin



Source: Republic of Haiti (2018).

service support and quality inputs (improved seeds), thereby contributing to the improvement of agricultural quality and productivity (such as tax incentives for purchasing/processing companies providing these services, access to improved resources); (ii) incentives to purchase agricultural machinery (leasing); (iii) developing the storage capacity of local producers and *Madan Sara*; (iv) encouraging MFIs to offer diversified financial services in rural areas to alleviate the cash constraints of local farmers and local *Madan Sara*; (v) encouraging *Madan Sara* and the processing companies to use digital payment services; and (vi) encouraging input credit companies to defer to the credit bureau to reduce the risk of parallel sales, and so on (see Chapter 6, Recommendations).

Private Initiatives in the Agricultural Sector

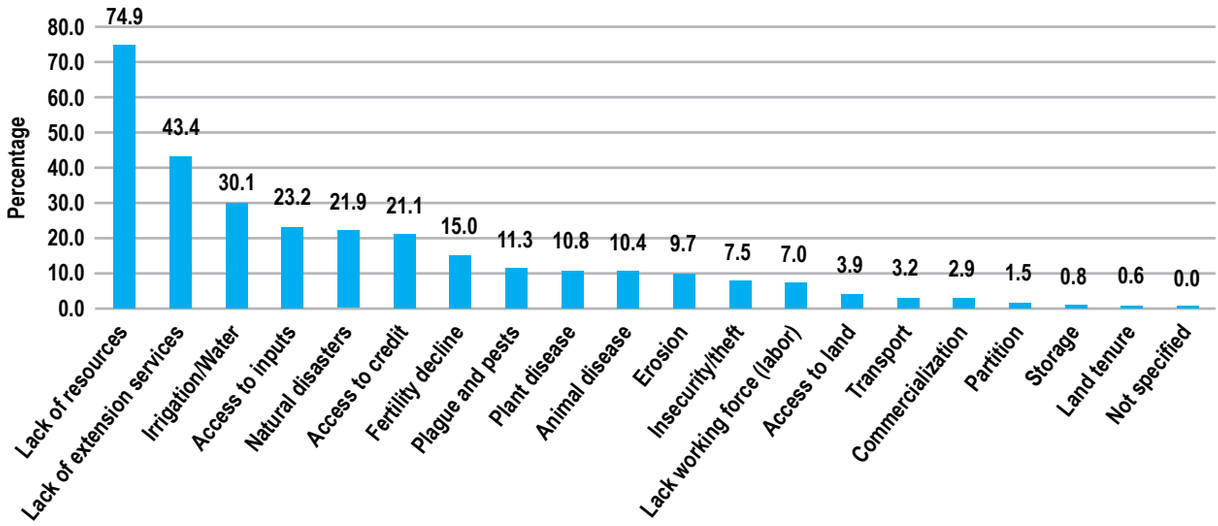
Rational farmers favor strategies of intensification, diversification and staggering of production rather than intensification strategies, which are too risky because they involve higher costs per hectare (Republic of Haiti 2018). Several factors limit the ability to increase agricultural productivity, including the risks of crop failures during peak harvest periods due to the limited financial capacity of informal buyers; the lack of proximate storage solutions; climate hazards and diseases; and the small size of the plots. These factors strongly encourage producers to develop fragmentation and diversification strategies.

With an average size of 0.95 ha per farm, incomes are insufficient to exit extreme poverty, stimulate the local economy and create new jobs. Farmers' incomes vary considerably according to localities and seasons. Among other things, they are linked to the purchasing capacity of the main market players. "As a result, farmers' incomes are very low, reaching US$ 300 / ha under the best conditions and most often between US$ 100 and US$ 200. A recent study by GRET[9] indicates that producers' gross incomes vary between US$40 and 200/ ha for rain-fed corn and between US$30 and 350/ha for more intensive irrigated maize. This last figure underlines the higher risks of losses associated with intensification." Politique & Stratégie Nationales SSAN Volume II, juin 2018

The question of financing is paramount to the revival of agriculture in Haiti. According to the 2012 RGA (Figure 6), a lack of resources (74.9 percent) and access to credit (21.1 percent) are considered among the main barriers to development by farmers.

The underfunding of the marketing and processing of local products is one of the hindrances to the growth of the agricultural sector. The

Figure 3: Main Obstacles to the Development of Agricultural Holdings



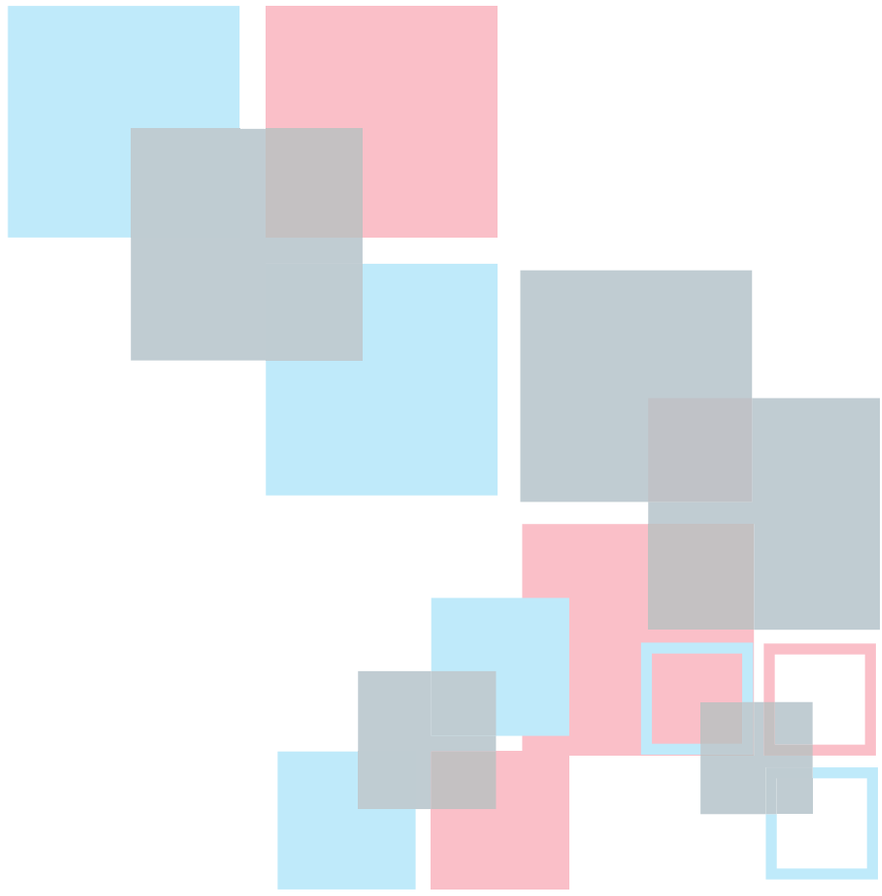
Source: RGA (2012).

informal nature of the activities of the *Madan Sara* does not allow them to have access to banking resources. At most, they have access to financing from MFIs and savings and credit cooperatives (whose important portfolio is devoted to informal commercial and rural activities, see Chapter 4.3). To finance their transactions, the *Madan Sara* first appeal to their entourage and, if necessary, to money lenders who practice usurious rates (> 20 percent per month) or traders (*komèsan*). The latter can also make advances in imported food bags (especially rice) to *Madan Sara* who then sell them quickly to finance their purchases of local products. According to the few testimonies collected, along the chain of marketing and processing of local agricultural products whose actors are mostly informal (including small processing companies), supplier credits and the use of bank credits and microfinance are rare. The weaknesses of the volume and size transformation industries limit their competitiveness and resilience to external shocks. By way of illustration, the case of Haitian coffee, recently affected by rust disease, could be considered. The processing capacity of local companies has forced them to resort occasionally to imports of raw coffee so as not to lose their local and international customers. At the same time, they can remain profitable in order to meet the requirements of their creditors and shareholders.

The lack of policies (for example, for improved seeds), including interventionist policies (in terms of fertilizer and farm machinery distribution), in the agricultural sector can create market distortions; it can also be counterproductive by limiting the use of fertilizers, seeds and agricultural equipment necessary for the improvement of agricultural yields (Republic of Haiti 2018). In 2016-17, Haitian producers used an average of 3.8 kg of fertilizer per hectare cultivated, whereas in the Latin American and Caribbean countries, where average productivity is more than triple, farmers apply more than one hundred kilograms on average (Republic of Haiti 2018). During the last decade, subsidies have been applied to fertilizer supply, either through direct imports from the MARNDR, or through allocations of market shares to importers, whose imports are financed by the MARNDR. The subsidy is between 33 and 80 percent of the import price. A survey in 2011 found that fertilizer prices in

the markets were up to 40 percent higher than if the market was fully liberalized (CNSA 2011). Numerous studies around the world have shown that subsidizing demand-side fertilizers through producer vouchers provides better results and creates less distortion than supply-side subsidization. In the seed market, the production and marketing system is dominated by the informal sector. As such, there is no structuring policy implemented to improve their quality.

Outside the rice plain of Artibonite, the mechanization of agricultural work is extremely limited in Haiti. The current fleet of tractors is estimated at about 500 units, of which 400 belong to the Departmental Directorates of Agriculture (DDA) and the Professional Agricultural Organizations (OPA). Sixty of these tractors are no longer in working order due to lack of maintenance. The 100 units belonging to private operators are operational. In 2012, the MARNDR distributed 400 tillers in the plain of Artibonite OPA, the majority of which are no longer operational. The management of agricultural equipment by the DDA and the OPA have not had any result. Rather, it has limited the private sector's investment in developing the sustainable sales and service market adapted to the needs of farmers. Thus, these policies have led to the existence of a fleet of non-functional farm equipment that meets only a tiny fraction of the demand of farmers.

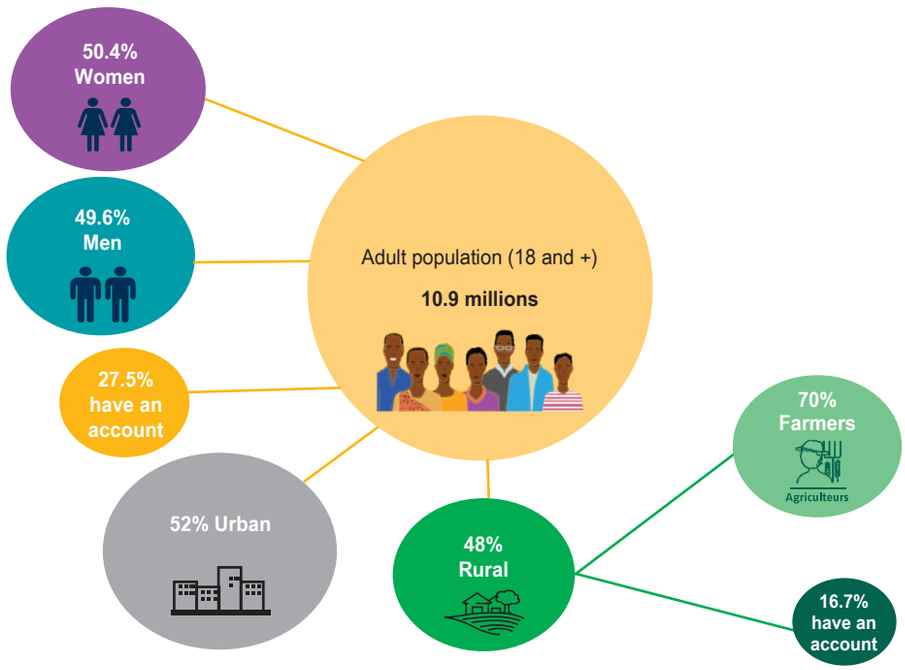


Financial Inclusion in Rural Haiti

Overview of Financial Inclusion in Haiti

Financial inclusion is a priority of the Haitian authorities. In recent years, the Haitian authorities have made efforts to develop and implement measures to increase access to financial services (Figure 4). These efforts are defined in the National Financial Inclusion Strategy (NFIS) adopted by the Haitian government in 2013. The NFIS is based on five main pillars: (i) financial services to facilitate inclusion and poverty reduction; (ii) credit for economic growth; (iii) local financial services; (iv) education and consumer protection; and (v) capacity building of financial institutions and expansion of financial infrastructure. The NFIS particularly targets vulnerable groups such as small agricultural producers, women, Haitians living in remote areas and migrant workers. Through this

Figure 4: Composition of Haiti's Population, 2017



Source: Illustration by the World Bank team. World Bank (2019b).

strategy, the country aims to increase the proportion of adult Haitians with an account in a formal financial institution and access to credit. In addition, it aims to improve the financial capacity of the population through financial education measures and increased consumer protection (increased transparency, reduction of remittance fees, and so on) (World Bank 2019b). A review of this national financial inclusion strategy is currently underway.

Most of the findings presented below are based on the results of the World Bank survey because they represent a larger and more accurate survey (3,000 interviews in the World Bank survey as compared to 500 in the Findex survey). In addition, it should be noted that the two sets of data are not comparable. The World Bank survey is for adults aged 18 and over (which is the age required by Haitians for transactions with a formal entity). The FINDEX surveyed people from the age of 15 (which is the standard they use around the world and allows for intra-country comparisons).

Access to accounts

According to the "Financial Capability and Inclusion" Survey conducted in Haiti in 2017 and published in 2019 (World Bank 2019b), 27.5 percent of adults (18 years and over) hold an account[10] in a formal financial institution. Of this number, 21.5 percent of Haitians have a transaction account in a formal financial institution and 14.3 percent have an electronic money account. Despite this progress, the level of financial inclusion in Haiti (as measured by the Findex 2017 survey) remains below the average for Latin America and the Caribbean (excluding high-income countries). It is also below the average for low-income countries, with 32.6 percent for Haiti as compared to 54.4 and 34.9 percent, respectively (Table 3).

Holding an account is positively correlated with the income level of the individual. Account holders in a financial institution or with e-money belong to the highest income group (39.5 percent in the

Table 3: Access to Accounts in Haiti and Comparator Countries

	Haiti			Other Countries in the Region (age 15+)				Other Comparator Countries (age 15+)			
	FinCap (2017, age 18+)	Findex (2017, age 15+)	Findex (2014, age 15+)	LAC (outside high-income countries)	Bolivia	Dominican Republic	Honduras	Low income countries	Ghana	Tanzania	Uganda
Account holders	27.5										
• *Men*	*29.2*	32.6	18.9	54.4	54.4	56.2	45.3	34.9	57.7	46.8	59.2
• *Women*	*25.7*										
Account in a financial institution	21.5										
• *Men*	*24.3*	28.1	17.5	53.5	51.2	54.8	42.9	24.5	42.3	21	32.8
• *Women*	*18.5*										
Mobile money account	14.3										
• *Men*	*13.7*	13.5	3.8	5.3	7.1	3.9	6.1	17.6	38.9	38.5	50.6
• *Women*	*15*										

Source: Findex (2014; 2017); World Bank (2019b).

highest income quartile for those with a checking and/or deposit account and 25.1 percent for those with an electronic money account).

Despite the specific targeting of women in the NFIS, only 25.7 percent have an account. However, 18.5 percent have an account in a financial institution. Women are also more likely to have an electronic money account with 15 percent reporting having one as compared to 13.7 percent for men.

Use

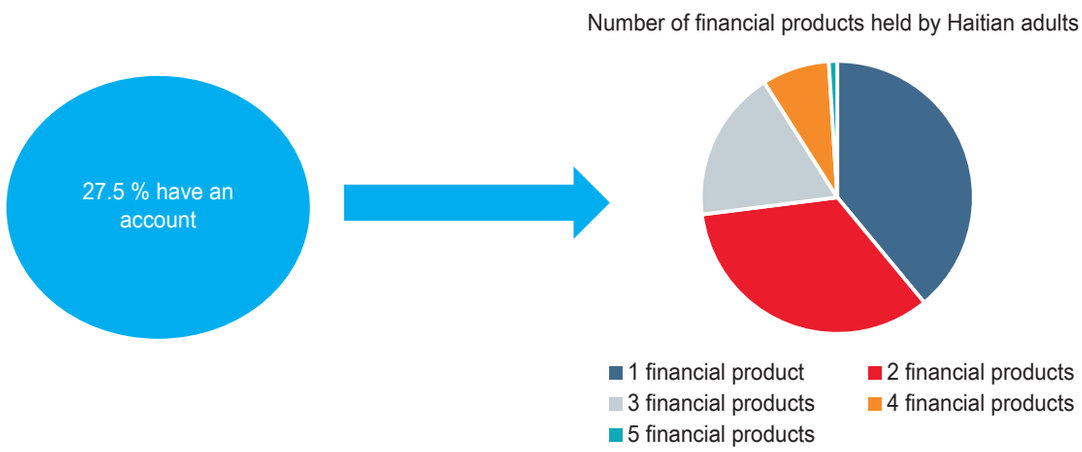
The use of formal financial products and services remains weak. Of the 27.5 percent of Haitians who are included financially, 38.5 percent use a single financial product, 34.5 percent use two types of financial products, and 27 percent use more than two types of financial products (Figure 5). Those who use only one financial product are for the most part holders of an electronic money account.

Credit is the most used financial product in the country. Indeed, more than half of the Haitian adult population had a loan in the 12 months preceding the survey. Borrowing is particularly prevalent in rural areas, where 64 percent of adults report having a loan in place (compared with 28 percent in urban areas and 24 percent in Port-au-Prince). In total, 43 percent of Haitian adults have a debt of more than two months of income. Twenty-six percent of adults say they have debts equivalent to 2 to 12 months of income, and 17 percent have a debt exceeding 12 months of their incomes.

Access to formal credit is low, though, with only 10 percent of Haitian adults having a loan from a formal financial institution. Bank credit dominates: 4.7 percent of the adult population has a loan in progress with a bank; 3.5 percent have a loan from a microfinance institution (MFI). Access to long-term credit is low, with only 2.8 percent of adults having a mortgage. In addition to the increased presence of banks in urban areas, bank loans and mortgages are mainly used in urban areas and by people with higher income levels (Table 4).MFI loans are prevalent in rural areas and among low-income people.

Formal borrowers use multiple sources of credit at a time. In fact, about 30 percent of borrowers from formal institutions have a bank loan and a credit card. There is also an overlap between loans from MFIs and bank/mortgage loans, with a quarter of borrowers having both a microcredit and a bank loan. This

Figure 5: Number of Financial Products used by Adults in Haiti



Source: World Bank (2019b).

Table 4: Access to Financial Products and Services by Geographical Area and Income Level (%)

	FI	Bank, CEC				Payment Services	MFI	Insurance	
	Account holder	Bank account	Credit card	Loan	Mortgage	Transfer operator	E-money account	MFI Credit	General / life, personal
Zone									
Urban	37.6	27.9	4.4	7.0	4.3	81.2	23.2	2.9	9.5
Rural	16.7	14.6	1.1	2.1	1.1	51.7	4.8	4.1	1.6
1st quintile	15.3	12.9	1.0	1.8	0.2	52.3	3.2	4.7	1.3
4th quintile	39.5	30.3	4.2	7.6	4.5	80.8	25.1	2.6	9.3

Source: World Bank (2019b)
Note: CEC = Savings and Credit cooperatives; FI = Financial Institution; MFI = microfinance institution.

situation may present a risk of over-indebtedness, and reinforces the need for all financial institutions granting credit to report to the credit bureau. In fact, in November 2018, almost a year and a half after its operationalization, 16 institutions participated with 196,000 inquiries on individual credit profiles.

Savings remain difficult for the majority of the population. In fact, 28 percent of the population declare that they have the possibility of saving after having paid for all basic expenses. However, only 15 percent of the population has savings, whereas the remaining 85 percent of Haitian adults have no savings. Thus, 96 percent of the most vulnerable segment of the population has no savings.

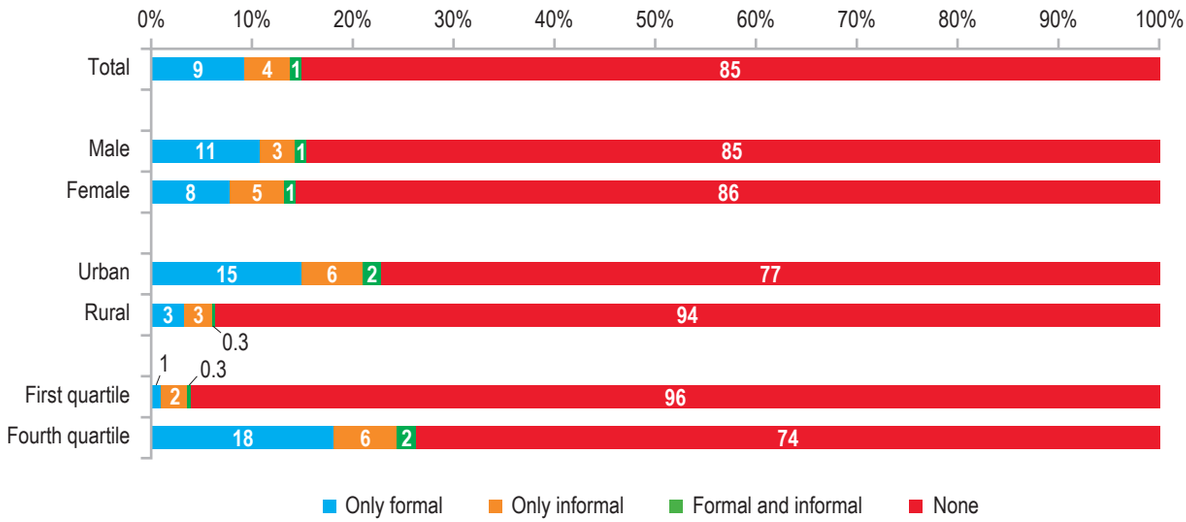
The majority of people who do save money use a formal institution. The 15 percent of the population with savings mainly uses formal financial institutions (71 percent). For the rural population and those with limited incomes, informal savings continue to play a larger role (Figure 6).

According to the results of the latest Findex survey (2017), the use of (monetary) savings is more common in Haiti than in other Latin American and Caribbean countries—excluding the high-income countries. In fact, 44 percent of adults over the age of 15 in Haiti have saved during the year as compared to a regional average of 37 percent. The culture of monetary savings (solidarity group) and in kind (small livestock) is present in Haiti, and represents an opportunity on which to build to increase financial inclusion.

The use of money transfers is a common practice in Haiti. In fact, 17 percent of Haitians send remittances, and 22 percent receive regular remittances. Domestic money transfers are mostly made from Port-au-Prince and other cities to rural areas. Data from the "Financial Capability and Inclusion in Haiti" survey show the existence of a transfer corridor between the departments of the West and Artibonite (shippers) and the Center and Grande Anse (recipients). About 31.6 percent of adults in the Western and Artibonite departments regularly send funds, compared to 4.4 percent in the Center and Grande Anse.

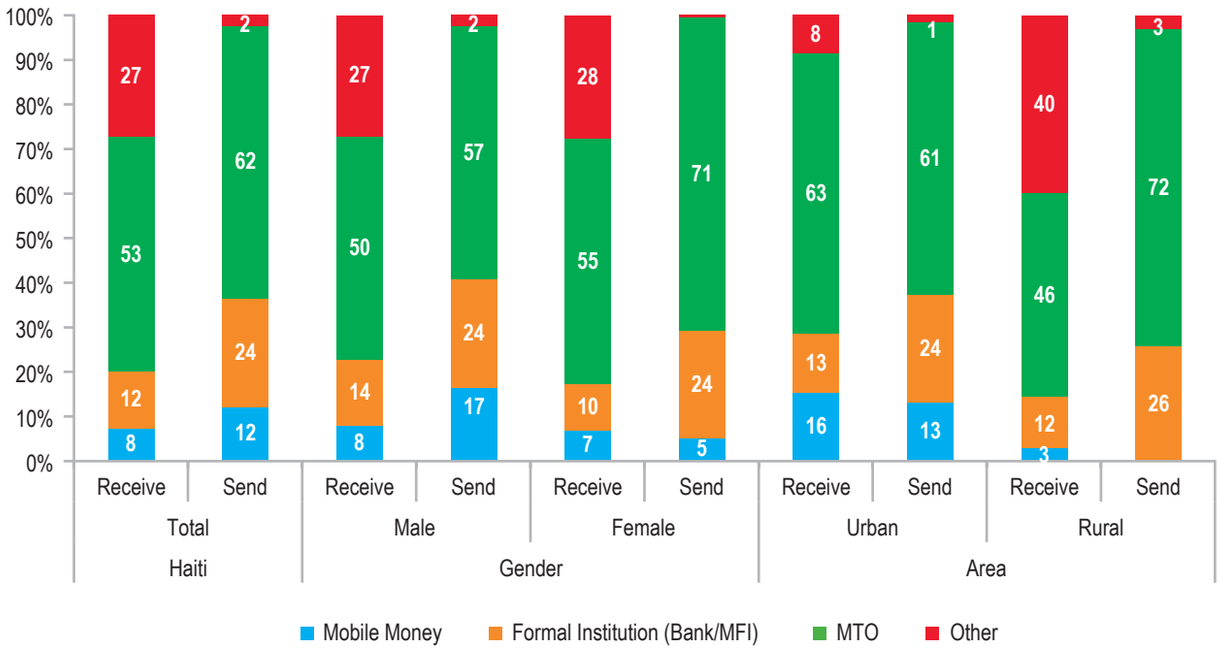
Money transfers involve both traditional transfer[11] operators and electronic money operators. Overall, 24 percent of shippers and 12 percent of fund recipients conduct business through a formal financial institution. The e-money account is used by 12 percent of shippers and 8 percent of recipients. The use of the electronic money account to send/receive funds is more common in urban areas, where the mobile account penetration rate is higher (23.2 percent) (Figure 7).

Figure 6: Formal and Informal Savings by Gender, Geographical Area and Income



Source: World Bank (2019b).

Figure 7: Money Transfers by Gender and Geographic Area



Source: World Bank (2019b).
Note: "Formal institutions" refers to formal financial institutions (Banks/MFIs). Geographic area refers to urban or rural area. "MTO" refers to money transfer companies, and "Others" refers to other means of transfers.

Insurance remains one of the least used financial products in Haiti. Only 2.7 percent of the population has health or life insurance coverage, and only 3 percent have car or other property insurance. Insurance products are more used in Port-au-Prince and other urban areas, with 23 percent of adults as compared to 4 percent in rural areas.

E-money, which was introduced in Haiti in 2010, is experiencing significant growth and presents an opportunity for the rapid development of financial services in the country. Holders of electronic money accounts increased from 3.8 to 13.5 percent (Global Findex 2014; 2017) between 2014 and 2017. This represents an increase of more than 300 percent during the same period as the number of account holders in a financial institution increased by 60 percent. Its start benefited from the need to facilitate and accelerate the delivery of cash payments for humanitarian purposes to the victims of the 2010 earthquake. Today, over 70 percent (CGAP) of the population has a mobile phone; two suppliers are active on the market (including Digicell with MonCash, and BNC with LajanCash) (see Chapter 4).

The Rural Population, Financial Inclusion and Indebtedness

Access to accounts in rural areas remains low. In fact, only 16.7 percent of the rural population has an account in a financial institution, compared to 37.6 percent in urban areas. Only 4.8 percent of electronic money account holders are in rural areas as compared to 23.2 percent in the cities.

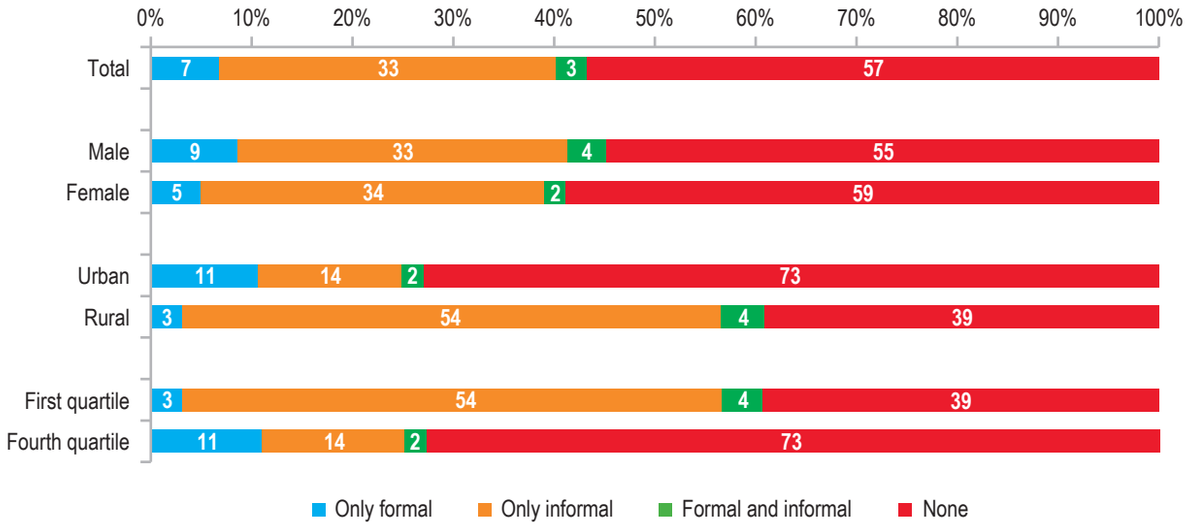
A high proportion of adults in rural areas are in debt. Indeed, 64 percent of the rural population is in debt. Thirty-seven percent of people in debt in rural areas are in the bottom income quintile, with a debt level equivalent to 2 to 12[12] months of income, and 23 percent have a debt equivalent to more than 12 months. Despite these high levels of indebtedness, none of the survey respondents indicated that they had borrowed "more than they could afford." Almost all are confident that they will be able to borrow more if needed. Agriculture is the main activity of the majority of rural people, and almost three-quarters of those who derive their income from the agricultural sector report having low cash flows. This is a particularly high level of indebtedness compared to the low incomes, reflecting the extreme vulnerability and dependence of these populations.

Informal forms of credit, savings and money transfers predominate. Family, friends and self-managed solidarity groups are the main providers of credit in rural areas, with 58 percent of the population having recourse to credit, as compared to 16 percent in urban areas. Informal credit is particularly prevalent in the low-income quartile. According to the results of the 2017 Findex survey, nearly 22 percent of those who save in rural areas do so through savings groups, as compared to 9 percent in formal financial institutions. As for transfers, they are also largely received via informal channels (family, friends, and so on), which account for 40 percent in rural areas as compared with only 8 percent in urban areas (Figure 8).

The formal source of credit in rural areas comes mainly from MFIs. Of the rural population, only 4.1 percent receive credit from MFIs as compared to 2.1 percent who access it through banks and savings and credit cooperatives. Mortgage credit and credit cards are rarely adopted in rural areas. The most commonly used formal financial service in both rural and urban areas is money transfer via operators, with 51.7 percent of rural populations using this service (Table 4).

Despite the high exposure of rural populations to natural hazards, the adoption of insurance is very low (with only 1.6 percent of adults). Around one major disaster affects Haiti every 5 to 7 years, and an internationally recognized disaster occurs every 2 years (CIRAD 2016). Insurance is a flagship instrument for disaster risk management. Unfortunately, according to the survey "Financial Capability and Inclusion in Haiti", 47 percent of the

Figure 8: Credit and Indebtedness Levels of Haitian Adults



Source: World Bank (2019b).
Note: "Formal only" includes adults who report having a mortgage loan, a formal loan from a bank/national savings and credit institution/MFI or a credit card. "Informal Only" includes adults who report borrowing from a money lender or family/friends.

rural population has never heard of insurance and 18 percent do not know how it works.

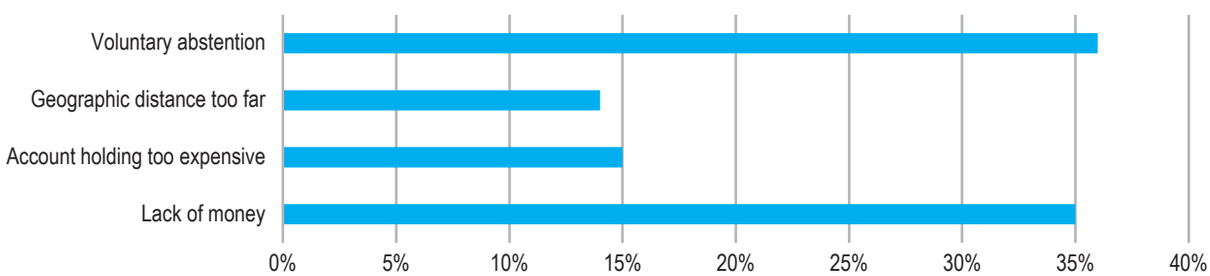
Main Reasons Cited for Lack of Accounts in Financial Institutions

Access to accounts and means of payment are prerequisites for promoting the use of financial services. This section presents the main reasons cited by survey respondents for not using formal financial services.

Deliberate abstention is the main reason given for not establishing an account. In fact, 36 percent of Haitian adults do not want to hold an account. Among these people, 15 percent say they do not trust financial institutions. Another 14 percent feel they do not need it, and 7 percent prefer to use cash.

This level of voluntary exclusion indicates the need for significant financial education efforts, particularly in rural areas and among low-income earners (segments comprising the majority

Figure 9: Main Reasons for Not Holding an Account



Source: World Bank (2019b).

Table 5: Accessibility of Service Points

Year	2013	2014	2015	2016	2017
Automated teller machine (ATM) for 100,000 adults		1.08	1.28	2.01	1.97
Bank branches per 100,000 adults	2.68	2.67	2.66	2.60	2.64
MFI branches for 100,000 adults	2.68	2.63	2.58	2.32	2.28
Mobile money agents per 100,000 adults	14.55	8.81	17.71		

Source: International Monetary Fund (2015). World Bank (2019b).

of excluded people), as well as in improving the quality of the financial services offered. According to the Financial Capability Survey, 78 percent of people with low levels of financial education[13] live in rural areas. More than half (51 percent) of those with a low level of education are in the top income quintile. In contrast, 54 percent of those with a high level of education are in the high-income category (4th quintile) and live mostly in urban areas (67 percent). The need for financial education is dire even for those with an account. For instance, one-third of them have difficulty understanding basic notions of finance, such as interest rates, thereby exposing them to risks.

Fees and lack of money are barriers to holding an account. According to the survey, 34 percent of Haitian adults say they do not have enough money to hold an account, and 15 percent say that an account is "too expensive". This means that about half of the Haitian adult population feels they cannot afford to hold an account. Cost-transparency efforts, comparability of products and services, and free transactions would help make holding an account more attractive. In addition, advances in financial education would help consumers to understand the hidden costs of using cash. At the same time, it would increase consumer capacity by allowing them to compare the costs between financial institutions and the competition.

The distance from a point of service is frequently cited as a constraint. In fact, 14 percent of the population say they are too far from a point of service. This does not seem to be the case, given the relatively weak implementation of service points in Haiti. Indeed, there are 2.64 branches of banks and 1.97 counters per 100,000 adults. In addition, most points of service for MFIs are outside Port-au-Prince, and there are 2.28 branches per 100,000 adults. As for the CEC, they have 97 branches in the country, or about 1 branch per 100,000 adults (Table 5) (DAI, USAID 2018). Faced with this geographical exclusion, electronic money accounts with the use of agents offer a real advantage. Moreover, the number of mobile money agents has grown, with 17.71 agents per 100,000 adults. This group represents the most dense network of financial service providers in Haiti.

Financial Offerings for the Agricultural Sector

Limited Supply of Financial Services to the Agricultural Sector

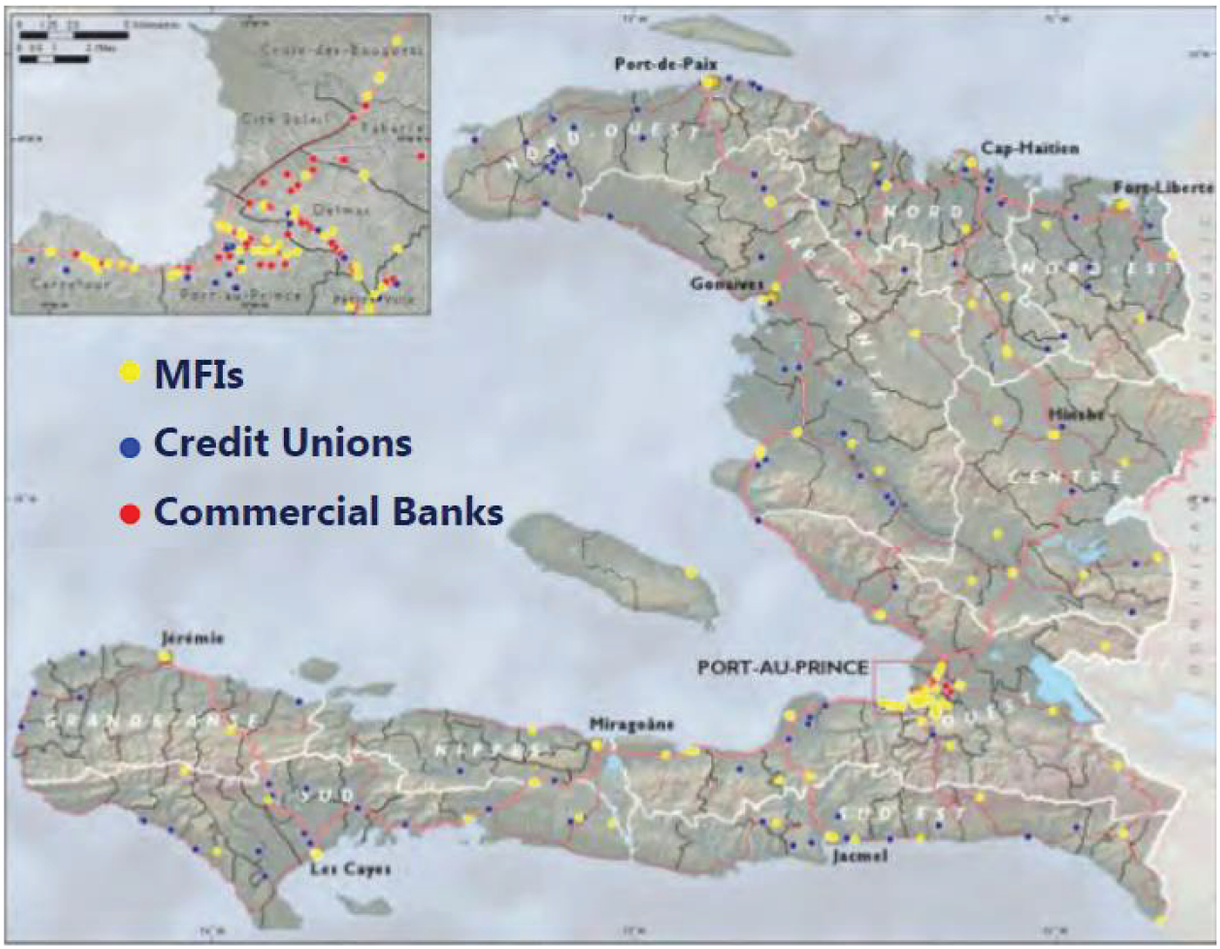
Despite the diversity of financial institutions in the Haitian market, the agricultural sector is served by only a small number of them; as such, it receives a small proportion of credit (0.6 percent of outstanding credit at banks as of June 2018), and the diversity of financial services offered is very limited. Formal financing in Haiti involves institutions/public banks (2); commercial banks (7); development finance companies; Digital Financial Services (SFDs) (1); Savings and Credit Cooperatives, CEC (more than 90); and microfinance institutions (about ten) (IMF 2015). The Haitian financial system, however, is dominated by commercial banks that hold 88 percent of all assets.

The rural installation of CECs and MFIs is more important than that of banks. The banking system is concentrated in Port Au Prince, with 67 percent of the 175 bank branches and 75 percent of the 53 ATMs. However, 80 percent of the 400 branches of the CECs and MFIs are located outside the capital. (Map 2) (BRH 2014). In addition, the use of agent networks is increasing (MCN has 350 agents, and SOGESOL has 29 agents including SOGEXPRESS) as well as e-money initiatives ("Toudecoté" card with MCN; Lajancash with BNC; and Moncash with Digicell).

Marginal Involvement of the Banking Sector in Agriculture

The banking statistics produced by the BRH show a commitment to the agricultural sector of 0.6 percent of outstanding loans as of June 30, 2018, for an amount of HTG 636.4 million, involving only 3 banks (BUH, Sogebank, and Unibank). This low level of engagement is improving. For example, it represented 0.1 percent in June 2014 and concerned only 2 banks (Table 7). The Haitian banking sector is comprised of 7 commercial banks[14], two public banks (National Credit Bank (BNC) and Banque Populaire Haitienne (BPH)) and a foreign bank branch (Citibank). The banking sector is also concentrated with 81 percent[15] of banking assets held by the three largest banks (BNC, Sogebank and Unibank). In 2015, there were 2.66 branches per 100,000 (IMF 2015) adults

Map 2: Density of Financial Institutions



Source: Technoserve (2014)

and 63 percent (BRH 2016) of the credit granted by the banking system is allocated to the importation of consumer goods. In addition, banking resources are mainly used for short-term financing. Indeed, their generally short-term resources (demand deposits account for 45 percent of deposits, compared to 32 percent for savings deposits and 23 percent for term deposits) also encourage them to finance most of their short-term loans (consumer loans, commercial activities, and so on) to the detriment of productive loans. The main business sectors financed include wholesale and retail (27 percent); real estate (23 percent); and consumption (9.5 percent); followed by building (6.5 percent); and financial services (5.9 percent). The significant change in credit declared by the banks to the agricultural sector from June 2017 seems to be a result of the incentives put in place by the BRH (see Chapter 5.1).

The strategy of the two main banks involved in agricultural credit is to engage with this sector through their microfinance subsidiaries (Sogebank with Sogesol, and Unibank with

Table 6: Indications of Financial Sector Commitments to Agriculture in Haiti

Gourdes (July 2018)	Financial Institution Number	Total outstanding credit		Outside agricultural credit		
		Amount	Number	Amount M (millions of Gourdes) or B (Billions of Gourdes)	Number	% total
Total Commercial Banks	**7**	**97.6 Bn**		**712.5 M**		**0.7%**
Commercial banks with agricultural credit (1)	**3**	**68.2 Bn**		**712.5 M**	**40**	
• **Sogebank**		• 26,8 bn s		• 71.6 M	• 3	
• **Unibank**		• 31.2 bn		• 554.5 M (2)	• 35	
• **BUH**		• 10.2 bn		• 86.4 M	• 2	
Public FIs	**3**	**21,791 bn**	316	**1.347 bn**	103	**6.2%**
• **BNC**		• 16 bn		• 16 M		0.1%
• **BCA**		• 91 M		• 31 M		34%
• **FDI**		• 5.7 bn		• 1.3 bn		23%
PDFI	**1**	**1.7 bn**		**309 M**	10	18.2%
• **Sofhides**		1.7 bn		309 M		
Total MFI & CEC	**6**	**12.263 bn**	**224,488**	**1. 441 bn**	**33,808**	**11.8%**
Cooperative Networks	**2**	**5,506 bn**	**45,401**	**310.6 M**	**4,412**	**5.6%**
• **Le Levier**		5.5 bn	45,351	304.6 M	4,372	5.5%
• **KNFP/FRICS**		6 M	50	6 M	50	100%
SA MF banking subsidiaries	**4**	**6.757 bn**	**179,087**	**1.130 bn**	**29,396**	**17%**
• **Sogesol**		2.8 bn	32,000	624 M	11,871	22%
• **MCN**		2.5 bn	34,500	483 M	17,000	19%
• **Fonkoze**		1.3 bn	65,000	8 M	104	6.1%
• **FINCA**		157 M	47,587	14.7 M	421	9.3%

Sources: Data collected from various financial institution, and compiled by the mission.
Note: BCA = Crédit Agricole Bureau; BNC = National Credit Bank; BUH = Bank of the Haitian Union; FRICS = Rural Solidarity Investment and Credit Fund; FDI = Industrial Development Fund; KNFP = Konsey Nasyonal Finansman Popile ; MCN = National Microcredit; PDFI = Private Development Finance Institution.
(1) BRH, July 2018
(2) Restated for outstanding loans to National Microcredit (MCN).

Table 7: Evolution of Bank Credit to the Agricultural Sector

	2008	2009	2010	2011	2012	2013	June 2014	June 2015	June 2016	June 2017	June 2018
Gourdes (Millions)	552	8.00	6.17	6.9	89.5	321.9	100.36	91.2	91.7	671.5	636.4
Percentage of total amount of credit	1.61%	0.02%	0.02%	0.02%	0.2%	0.48%	0.13%	0.12%	0.11%	0.7%	0.6%

Sources: BRH, annual and statistical reports, 3rd quarter of 2018.

MCN) utilizing market segmentation. The latter also[16] report a portfolio of direct loans to agro-processing and/or food and export processing companies (mangoes) (Table 6). The average outstanding amount of these loans is about HTG 24 million for SOGEBANK and about HTG 16 million for MCN, meaning between US $200,000 and US$ 340,000, targeting the SME segment. The microfinance subsidiaries operate in the agricultural production segment and in the often, informal micro and small processing firms (see Chapter 4.3).

SOFIHDES has a small SME portfolio in agribusiness (18 percent of its portfolio) financed mainly through the BRH facility for exporting companies[17]. It is the only development finance company in Haiti. It is involved in financing and support services for SMEs. The proportion of its portfolio dedicated to the agricultural sector is reduced (18 percent), with a total outstanding portfolio of HTG 309 million as of the end of July 2018. This includes loans for about 10 companies in agribusiness (processing/marketing and export) coffee, cocoa, vetiver, etc. (Table 6). SFD status allows one to benefit from tax exemptions over 10 years and to conduct rent-to-own activities (in the absence of a law on leasing). This status also makes it possible to issue bonds to individuals, but not to collect deposits. A second SFD project is awaiting the approval of the BRH. It emanates from the cooperative sector, FRICS[18], a shareholder-based company created by the KNFP in 2013 (farmers' organizations (POs), NGOs, individuals and SIDI[19]), and aims to make loans to POs and Solidarity Mutuals (MUSOs).[20]

The BNC, a public bank, has so far been relatively uninvolved in this type of financing, despite its 40 branches in the country; however, its 5-year strategic plan devotes 5 percent of its portfolio to agricultural financing. Therefore, it has appealed to the SYFAAH[21] project for agricultural financing training for about ten loan officers in three regions. As of June 2018, it shows globally less credit activity than that of its competitors (except the BPH with 21 percent) in proportion to its assets (23 percent in loans as compared to 33 percent in investments). In comparison, the other two major commercial banks show a stronger credit activity in proportion to their assets (28 to 33 percent) and for investments, 20 to 26 percent of their assets. In addition, most of the portfolio is invested in real estate (32 percent), consumer credit (16 percent), trade (9 percent) and transport (9 percent). However, it indicates (although these credits do not appear in the statistics on agricultural financing of the banking sector provided by the BRH) that it granted loans for the processing and marketing of agricultural products. However, this activity is marginal (Table 6). Since January 2013, it has been conducted as part of the "Procrédit" service, which has granted 250 loans to SMEs for a total of HTG 62 million, of which 75 percent concerns the marketing and processing of agricultural/

food products. These loans can be medium term, that is, for a duration of up to 36 months. About 15 percent of the current credit outstanding (HTG 16 million) would be in difficulty (due to delays and litigation).

This lack of interest by banks in direct financing of agricultural production activities reflects internal and market constraints, including: (i) an aversion to significant risks that are not mitigated by appropriate measures and arrangements (insurance/guarantees) (see Chapter 5.2); (ii) a lack of in-house expertise to investigate this type of demand, and assess the risks given the largely informal nature of these activities; (iii) the costs and complexity of this type of financing in comparison with the financing of commercial activities; and (iv) probably the small number of farms of a certain size (see Chapter 2).

In addition to the virtual absence of banks from the financing of productive activities, the small number[22] of processing and marketing companies for local agricultural products also likely explains the small size of the portfolio devoted to them. Rather than difficulty of access to bank financing, most representatives of "agricultural" SMEs mentioned the constraint of the cost of banking services. It was perceived as too high given the difficulties of sustainability encountered in their market (with rates between 17 and 26 percent on the short-term line in Gourdes and 12 to 16 percent in US$).

Microfinance and Savings and Credit Cooperatives Sector

The lack of a uniform and/or harmonized regulation governing microfinance activities and CECs, including supervision, is a major obstacle to the secure development of these activities and greater visibility. In Haiti, the microfinance sector (financial services for populations excluded from banking services) is led by a variety of institutions, credit unions and affiliated credit unions (CECs) and non-affiliated companies, subsidiaries of banks, private limited companies, associations and foundations. All of these structures target the unbanked population, namely non-salaried individuals, microenterprises, very small and often informal enterprises, farms and all informal business activities. However, these institutions are not subject to the same regulations, or even no regulations for some (microfinance SA). Therefore, they are not supervised in the same way (Box 4). This impacts the development of their activities and their visibility as part of this sector. Thus, the data reported in this report come from disparate sources including: interviews, sector studies and BRH data (for CECs only).

In the absence of comprehensive supervision of the microfinance sector and the CECs, the exact size of this sector and the number of structures of all types that operate within it are not known. However, it can be estimated that the microfinance sector is mainly comprised of 67 institutions, including 55 supervised CECs, 3 bank subsidiaries, 4 SA-type MFIs, and 5 associative or foundation institutions with a consolidated loan outstanding of about 14 billion HTG for 286,216 borrowers. These are the results of a study conducted in 2018 for the United States Agency for International Development (USAID) (DAI USAID 208) that lists the MFI members of the four main existing networks including: about twenty CECs gathered around the National Association of Haitian Credit Unions (ANACAPH) and the Levier Federation[23] and 35 non-federated[24]; seven banks and SA-type MFIs are members of the National Association of Microfinance Institutions in Haiti (ANIMH);[25] and associations and solidarity mutual members of the "*Konsèy Nasyonal Finansman*" (KNFP).[26] These MFIs and CECs are all established, and have been operating for an average of 19 years (for example, on average 25 years for CECs, 23 years for SAs and 18 years for bank subsidiaries). Their associations, whose aim is to ensure the representation and accompaniment of their member institutions, are struggling to fulfill their mandate, particularly because of a lack of

Box 4: The Legal and Regulatory Framework for Microfinance and CECs

The CECs (*Caisses Populaires* or Credit Unions), are cooperatives whose mode of organization and functioning until their dissolution is fixed by the Law of September 14, 1953. The Decree of April 2, 1981 specifies the conditions for the *Caisses Populaires*. Until 2002, they were controlled as cooperative enterprises solely by the National Council of Cooperatives (CNC)[a]. Non-bank MFIs with NGO, foundation and association status were controlled either by the Ministry of Planning and External Cooperation or the Ministry of Social Affairs and Labor. However, these controls were limited to the granting of operating authorizations or legal recognition—without specific controls related to savings and credit activities. In 2001, with the bankruptcy, of financial pyramids disguised as cooperatives, the Haitian authorities passed the Law on Savings and Credit Cooperatives (the Law of June 26, 2002 on the CECs). Later, it created within the BRH a specialized unit for the supervision and regulation of these CECs called the General Directorate of Caisses Populaires (DIGCP). The 2002 Law designates the CNC as the supervisory authority for cooperatives. As such, it is responsible for formulating and promoting government policy in cooperative matters. It also assigns the supervision of these institutions to the Central Bank (inspections and prudential supervision), while introducing delegated supervision through the federation. In this context, the BRH has defined 9 prudential and accounting standards to which the CECs must comply[b].

To reinforce this supervision of the CECs, two texts are planned: a circular regarding the accounting plan and the revision of the Law on Cooperatives of 2002. Some of the cooperative MFIs were admitted to the BRH clearing house in 2017. As a result, these institutions must produce financial reports at a more regular frequency. They are also obliged to respect certain stricter surveillance standards. They participate in the Credit Information Office (BIC), and have adopted the new chart of accounts set up by the BRH.

MFIs with a status of SA, NGO or foundation (that is, a non-cooperative) are neither regulated nor supervised. The law on microfinance drawn up about four years ago has still not been approved, leaving it to evolve in a legal vacuum. This is especially the case for microfinance SAs, which represent a significant part of the sector. As such, they are excluded from a certain number of possibilities offered to the CECs and indirectly to the MF subsidiaries of the banks, that is, direct refinancing through the BRH facilities, issuing of means of payment, and collection of deposits from individuals. In addition, as the laws on leasing and insurance have still not been adopted, these activities cannot be developed by the sector.

Source: DAI, USAID (2018).
Note:
[a]Created by the decree of March 31, 1981, the CNC's mission is to formulate national policy regarding the organization and development of cooperatives in agreement with the Ministry of Planning and External Cooperation. Its remit includes the following: inspect and control cooperatives; study the applications for approval; maintain statistics of the cooperative movement; redress the situation of groups whose functioning is not in conformity with the law; study and plan the educational activities of pre-cooperative groups; provide cooperative training for leaders and members of cooperative societies; organize and ensure the satisfactory operation of cooperative enterprises; analyze the financial reports of cooperative societies; and study and seek ways of providing the financial, national or external resources necessary for the development of the cooperative movement.
[b]Liquidity standard (cash/deposit liabilities > or = 25 percent); investment management standards (investments/assets {or = 9 percent), credit risk management (portfolio + off-balance sheet commitments/assets < or = 70 percent); capitalization (Own resources/assets} or + 12.5 percent); and the requirements for internal control, external control, transmission of financial statements, opening of branches and points of service and the accounting charter.

Box 5: Mutual Solidarity Fund

A Mutual Solidarity Fund (MUSO), or Basic Association of Contributions and Loans (ABCP), is a group of people with strong links between them (socio-occupational background, place of residence, family, friendship, and so on) who decide to create a contribution-based fund to achieve a clearly defined objective such as the provision of credit to group members on a rotating basis. Unlike community banks, solidarity mutuals are independent from the outset. The rules of operation are established by the group itself without interference from any MFI — even though the MFI may be an alternative source of funds to supplement insufficient internal resources as well as technical assistance.

Some MUSOs are registered at the Ministry of Social Affairs, but most are informal. These MUSOs are grouped together in a network. For example, the KOFIP gathers about 1,500 MUSOs, with 90 percent located in rural environments. The activity is very small; according to the latest data available, at the end of September 2016, 1,118 credits for HTG 22 million were in progress. Seventy percent of its resources are grants from partners, and the rest are loans from "the Rural Solidarity Investment and Credit Fund" (FRICS) and from the Foundation "hand in hand".

Source: MAE/BRH (2018), and information collected by the World Bank mission.

resources. For example, ANIMH, which groups non-CEC MFIs, has not been able to produce an annual report for 3 years or any exhaustive data about this sector. In the case of Levier, it is a CEC federation that also carries out a central fund activity for its members.

The microfinance and CEC sector has the following characteristics: the weight of SA and banking subsidiaries in the credit supply; a predominantly urban presence and supply of credit; a relatively low deposit collection activity under the CECs; and the CECs have an acceptable financial performance, but with a small scope given their number (Table 10):

- **The total outstanding credit of the sector at the end of 2017 is up 32 percent compared to 2016, that is, about HTG 14 billion for 286,216 borrowers.** This is mainly the result of microfinance SA (+41 percent), bank subsidiaries (+ 36 percent) and CECs (+ 26 percent). The 55 CECs hold 41 percent of this outstanding credit and have 17 percent of the borrowers; the 4 MFIs-SAs hold 24 percent of the outstanding credit and have 55 percent of the borrowers, and the 3 bank subsidiaries have 25 percent of outstanding credit and 27 percent of borrowers (Table 9). There was a fairly weak annual growth in credit activity before 2010, with an acceleration since then (Table 9).
- **A predominant presence of MFIs in urban areas**: There are 56 in Port-au-Prince, 118 in provincial towns and 102 in rural areas for the 274 service points (head offices and agencies) of the 67 surveyed MFIs covering the ten departments of Haiti. However, the coverage of rural areas is progressing compared to 2011–2012, when only 71 offices were identified. The CECs and MFIs-SAs are the most established in rural areas in comparison with bank subsidiaries (Table 9).
- **A high concentration of credit in major provincial cities (57 percent) and in the metropolitan area of Port-au-Prince (24 percent) compared to rural areas (18 percent).** This is a trend apparently observed since 2010 (with nearly 57 percent of the loans comprising the portfolio of the 83 MFIs studied allocated to beneficiaries operating outside the capital, and around 20 percent in rural areas). In 2017, the CECs granted 57 percent of their loans to beneficiaries outside Port-au-Prince, whereas the subsidiaries/bank departments only granted 45 percent. However, there are disparities between MFIs, with some more anchored in rural areas than others (for example, some CECs, Fonkoze, with only 20 percent of their portfolios in urban areas). The CECs are subject to the regulatory constraint

Table 8: Synthetic Data about the Microfinance Sector and CECs in Haiti, 2017

Type of institution	Number	Service points / rural (a)	Total activity 2017 - HTG bn -(part %) -*Growth rate/ 2016*	Credit portfolio 2017 -HTG bn -part %) -*Growth rate/ 2016* -Part female	Borrowers 2017 -Number -(part %) *Growth rate / -2016* -Part female	Deposits 2017 -HTG bn -(part %) *Growth rate / 2016* -Savings as amount / percent (b)
Savings and credit cooperatives	55	97/46	9.2 bn (40%) *+18%*	5.7 bn (41%) *+26%* **31%**	50,057 (17%) *+0,3%* **41%**	6,7 bn (80%) *+24%* **86%**
Limited companies	4	93/39	5.8 bn (25%) +26%	3.3 bn (24%) *+41%* **66%**	156,828 (55%) *+9.5%* **89%**	1.6 bn (19%) *+14%* **99%**
Bank subsidiaries	3	76/12	8.1 bn (34%) +30%	4.9 bn (35%) *+36%* **36%**	77,682 (27%) *+9.7%* **46%**	0
Associations (and foundation)	5	8/4	0.06 bn (1%) -0.05%	0,04 bn (0.3%) *-34%* **52%**	1,649 (0.6%) *-14%* **48%**	0.009 bn (0.1%) *-10%* **0%**
Total	67	274/102	23.2 bn (100%) +24%	14 bn (100%) *+32%* **41%**	286,216 (100%) *+7.7%* **69%**	8.3 bn (100%) *+22%* **89%**

Source: Table reconstructed by the mission from data included in the study DAI, USAID (2018). "

[a] Points of service outside Port-au-Prince and provincial cities

[b] Voluntary savings.

Table 9: Evolution of Data on the Sector since 2007

Evolution temporelle des donnees du secteur de la microfinance de 2010 A 2017								
							Taux de croissance annuel	
	2017	2016	2010	2009	2008	2007	2016– 2017	2007– 2010
Number of importers	286,216.00	265,735.00	208.998	237,789	239,840	191,649	7.71%	2.93%
Number of depositors	1.230,325.00	628,217.00	99 T,6 77	938.316	861,403	401,359	95.84%	35.19%
Balance sheet size	23.197.582.917	18.679.364.229	9.095,375.042	6,942.942.895	6,540.217.561	4,931,943.557	24.19%	22.63%
Gross Portfolio	13,967,441,350	10.548,143,124	4,71 1,1 10,62 6	4.338,263,091	4,101,313,194	3,193.600,952	32.42%	13.84%
Volume of deposits	8.322,800,657	6,847,118.284	3.918.284.1 1 6	3,063.090.623	2,817.790,554	1.927,997.05 2	21.55%	26.67%

Source: DAI, USAID (2018).
Note: Data from MFIs and savings and credit cooperatives are included.

which limits their geographical area to a department. This to maintain a certain cohesion and control of the membership.

- **The supply of individual loans surpasses group loans:** In 2017, they represented 63 percent (181,588) of credits in progress. They are mainly offered by the CECs (92 percent of their borrowers) and by bank subsidiaries (100 percent of their borrowers). A little more than one-third of the credits are group credits (20 percent solidarity group, that is, 57,963 credits and 15 percent community banks, or 41,793 credits) and are used by microfinance SAs (37 percent of their portfolio consists of group credits, 27 percent of community banks, and 36 percent of individual credits). Lastly, solidarity mutuals represent a very small part of the sector's portfolio (0.35 percent, that is, 975 credits) and belong more to associations.
- **Deposits are mainly held by the CECs, the only ones authorized to collect savings:** They hold 79 percent of the deposits and serve 73 percent of depositors, that is, HTG 6.4 billion for 550,000 depositors out of a total of HTG 8.4 billion and 1,230,325 depositors in 2017 (Table 9). In 2017, more than 89 percent are voluntary depositors and only 11 percent are depositors whose accounts are linked to a loan account (forced savings). Subsidiaries of commercial banks do not collect deposits (their resources come from endowments of the parent company), and they direct their customers to the bank for the opening of deposit accounts. However, it is observed that an MFI SA collects deposits (demand and term deposits). The average rate of remuneration of voluntary savings in local currency is 1.5 percent per year, and the rate of term deposits (DAT) is from 6 to 7 percent. MFIs also offer, to a lesser extent, other services such as money transfers (Moneygram agents, Western Union, and so on), as well as currency exchange and payment methods (checks), but only for the CECs accessing the compensation.
- The financial performance of the sector as a whole and for each category of institution seems acceptable at the end of 2017, even if it can be improved. The credit portfolio of the CECs represents 54% of the assets, these assets being 69% financed by the members' deposits. For MFIs (members of ANIMH), the gross portfolio constitutes 61% of

the assets. These assets are financed by loans from the holding and / or loans and grants received from international organizations for the MFI SA. NGOs and associations, apart from their own funds, are financed almost exclusively by loans from the banking sector and other national and international institutions. At the end of September 2017, the operational self-sufficiency coefficient (OAC) was estimated at 1.4 for the CEC and 1.2 for the MFI SA and subsidiaries of the banks. The operating coefficient, however, shows relatively high levels: 60% for the CEC and 85% for the MFI members of the ANIMH. At September 30, 2017, the return on assets for the CECs is 4.88%, a decrease of 56% compared to September 2016. For the return on equity (ROE), these CECs have an ROE of 18.23% in 2017. Profitability above the inflation rate of the last three years. For MFIs affiliated with ANIMH, the return on assets is 1.90%, a return on assets that corresponds to the average profitability of the sector in general (CEC included) in September 2012. The quality of the portfolio MFIs is uneven across types of MFIs, SAs and bank affiliates having an acceptable level compared to CECs and associations (Table 11).

The microfinance and CEC sector spent around 14 percent of their portfolios in 2017 on financing the agricultural sector—far behind trade activities (53 percent) and the housing sector (11 percent) (DAI, USAID 2018). However, disparities between institutions are important. The average individual microfinance loan in Haiti would be around US$ 430 to 850 (or between HTG 30,000 and HTG 60,000, depending on the MFI), one of the lowest in the region where the average is US$2,269 (The MIX 2016). The microcredit portfolio of the Dominican Republic is almost double that of Haiti, with an average credit of about US$ 1,393 (The MIX 2016). In the case of group loans and village banks, the average individual loan can be significantly lower, around US$200 (or around HTG 15,000). In the agricultural sector, the average productive loan also seems to fall within these ranges, which generally correspond to the average cost of operating one "carreau"[27], for example in rice (HTG 55,000) or in sorghum (HTG 30,000). The amount of funds raised for the financing of the working capital of small processors are also in these ranges. It is the acquisition of equipment (mills, for example) that will increase the amount of credit required, to nearly US$1,400 (HTG 100,000 with working capital included) according to the examples encountered.

Table 10: Portfolio Quality of MFIs

Percentage of loans in arrears for more than 30 days (PAR > 30 days)		
Institutions	**2016 in %**	**2017 in %**
Financial cooperatives	9.23	7.33
Joint stock company	5.2	4.28
Bank branch	5.69	5.63
NGO	21.00	24
Other	20.00	26
Average	12.224	13.448

Source: DAI, USAID (2018).
Note: For data as of the end of September 2017.

The KNFP, ANACAPH and ANIMH indicate that at the end of September 2017, the sector allocated a portfolio of HTG 1.3 billion (US$18.6 million) to agricultural financing for 35,342 customers (Table 12). World Bank data collection finds a fairly similar amount at the end of July 2018 (Table 7) of HTG 1.4 billion, by integrating the Levier CEC for 33,808 customers. However, it can be considered that this amount is a little larger, especially if the commercial activities related to these agricultural activities are considered. Many small traders (*Madan Sara*) who are involved in the chain of marketing agricultural products (see Chapter 2) take credits whose stated purpose is commercial activity and not agricultural activity. Therefore, they are not counted in credits to the agricultural sector by MFIs.

Table 11: Commitments of the Microfinance Sector to Agriculture

	September 2017
Total disbursements	5,847,714,295
# of customers served	191,275
Average size of disbursements	30,572
Total portfolio	1,307,068,584
Number of clients	35,342
Average size of loans	36,983
Geographic coverage	All the territory
Financial sectors	All production sectors - processing - storage - equipment
Interest rate min and max	1.5% a 3.5% per month
Accumulated losses	370,355,934
PAR Agriculture	9.2%
PAR other Segments	4.3%
Write off rate	Agriculture
General write off rate	7.5%

Source: Presentation of the associations at the 2018 finance summit (for the contribution of microfinance in agricultural financing).
Note: These figures are as of the end of September 2017, according to the professional microfinance associations.

The MFIs most involved in agricultural finance are microfinance SAs and bank microfinance subsidiaries (Table 7). Some institutions (Sogesol, CMN) have developed in-house expertise and a methodology adapted to agricultural financing to which they devote part of their portfolios (between 19 and 22 percent, Table 7). Other SA-type MFIs are engaged in a targeting strategy for this sector with technical support and dedicated resources from partners (for example, Fonkoze with IPC, and FINCA Haiti with FINCA Canada). Agricultural financing initiatives are led by networks of cooperatives and MUSO with a smaller scope (see Box 5). At the CEC level, which accounts for a large share of the sector's outstanding loans (Table 7), interest in agricultural financing appears to be lower (5.5 percent of the 22 CEC portfolio of Le Levier network out of the 41 members; by contrast, more than half of the consolidated portfolio is allocated to commercial activities and 30 percent to housing loans).

The main constraints of MFIs in developing a financing offer adapted to the agricultural sector are as follows:

Despite interest rates that are considered high, the MFI's agricultural lending activity remains unprofitable. The nominal monthly rates charged by MFIs (all types combined) range from 2.75 to 4.8 percent. The rates are highest in group loans (peer group and village banks) and lowest for micro and very small businesses (TPEs) loans of larger amounts. However, the overall effective rates (TEG) that are not calculated (as there is no regulatory obligation on this subject) can be higher if the fees in the form of commission are added (1.5 - 3.7 percent) (DAI, USAID 2018) to the loan amount) — and especially with the addition of compulsory deposits (between 20 and 30 percent of the loan amount) as a precondition for granting the credit imposed by the CEC. Interest rates are generally calculated on a decreasing base, but the practice of flat rates for MFIs is also existing, which

adds to the cost of credit in the case of scheduled installments. These rates can be considered high, particularly when financing production or working capital for Micro and very small Enterprise in the agricultural sector. However, they must be compared with the rates in the informal sector or by the processors who advance seeds (for example, to producers) (see Chapter 2), which can be much higher. In this context, it would be necessary to study precisely the components of the cost of credit to identify the levers by which to act to reduce this cost for borrowers, particularly without generating distortions of competition and windfall effects, which are always ephemeral and counterproductive. Credit to the agricultural sector is riskier because of the nature of agricultural activity, the vagaries of marketing, and the fact that rural indebtedness is apparently important (see Chapter 3). Therefore, this type of financing requires close monitoring to reduce the risk of non-repayment. Further, it must also be carried out in environments that are often difficult to access. As such, it generates operating costs that are generally higher than for the rest of the portfolio.

- The quality of the agricultural credit portfolio is lower than the overall portfolio (PAR Portfolio At Risk 30 on agricultural credit is 9.2 percent compared to 4.3 percent for the other segments and write-offs are 18.8 percent as compared to 7.5 percent. overall, Table 11). This finding is shared by all MFIs (at Sogesol, 30 percent PAR rate of 12 percent on the portfolio, and 19 percent of agricultural credit borrowers as of June 30, 2018; at MCN, it is 13.41 percent PAR rate in agricultural credit as compared to 6.18 percent for its overall portfolio as of the end of July 2018).
- The operational costs of MFIs are also high and are higher than for agricultural credit. For example, in 2017, consolidated operating costs amounted to HTG 1.8 billion, or 21.3 percent of the amount of the gross credit portfolio of member MFIs of the ANIMH (DAI, USAID 2018). Some MFIs have higher ratios of around 30 percent due in particular to poor infrastructure (the road network is estimated at 3,400 kilometers and 80 percent is in poor condition) (MARNDR 2011). For the 55 CECs surveyed, the ratio of operating expenses to the net portfolio of CECs is 18 percent as of 2017. The CECs have the distinction of benefiting from local volunteer staff and smaller central services than the SAs. However, the World Bank's CEC study highlights the inefficiency of CECs in view of the significant financial margins achieved (World Bank 2017).

Faced with these risks, the existing risk coverage tools are limited in scope and do not work optimally (guarantee funds and crop insurance). The FDI guarantee fund mechanism perceived as complicated by some institutions with administrative access is considered to be a deterrent for some, whereas the index insurance mechanism tested at the SYFAAH project level was limited in scope and remained unresolved (see Chapter 5).

Access to the resource at an affordable cost and for adequate periods of time is a particular constraint for microfinance SAs. The constraint of access to the resource is not the same depending on the type of financial institution.

- The CECs affiliated with Levier collect the deposits, the vast majority of which are unpaid. They benefit the most active loans of the Federation, which performs the function of a central body (centralization of CEC cash surplus and investment in banks and at the BRH). Overall, the level of liquidity would be high, with a rather low level of intermediation at the level of the CECs (World Bank 2017b).
- Microfinance subsidiaries of banks benefit from the cash position of their parent company for their credit activities. They are remunerated according to a commission on the net income of their portfolio, with a cost of the resource at around 10 to 12 percent.
- Microfinance SAs, which are not subsidiaries of banks, are not allowed to collect deposits[28], and are forced to use bank loans and international

Box 6: Examples of Farm Credit Profitability

Sogesol conducted a profitability study of its credit activity by credit segment and type of credit. Their analysis leads to the observation that agricultural credit, with a portfolio of HTG 534 million ot profitable; rather, it generates a loss of 15.6 percent on the outstanding loans, in comparison with a net profit of 2.9 percent on the total amount of outstanding loans. The 15 percent financial margin generated after provisions not allow it to cover direct operational costs (17 percent) and indirect operational costs (14 percent).

On the basis of this profitability analysis, Sogesol plans to move upmarket with regard to credit amounts; this includes loans of less than HTG 50,000(US$ 700) with higher than average default rates (with a net provisioning ratio for doubtful accounts of 17 percent compared to 10 percent overall) and higher operating costs (almost 50 percent of the outstanding amount compared to 24 percent for the overall portfolio).

CMN also considers the credits of between HTG 5,000 and 100,000 intended for a very vulnerable and often over-indebted population to be the riskiest. Therefore, they are the most expensive (including coverage of the defaults and follow-up costs).

Source: Observations of mission

partners. The cost of bank refinancing in Haiti is high (in terms of rates and guarantee conditions), and directly affects borrowers' loan rates. For instance, loans in local currency are set at rates ranging from 13 to 16 percent (including commission) on average by deposit in terms of 70 to 75 percent in US$s of the loan for a revolving line of credit. Alternatively, for some, there are 7-year SOGEBANK loans with a 1.5 percent ARIZ guarantee (covering 75 percent of the loan). The alternative is to be able to borrow from international partners. However, if access conditions can be more flexible, the rates still seem relatively high at 17 to 18 percent in US$, with the foreign exchange risk charged to the MFI.

Few MFIs have the technical capacity and expertise needed to engage in agricultural finance. Specifically, they lack in-house expertise regarding the methods adapted to demand analysis; the construction of cost benchmarks; the adaptation of schedules and guarantees; the monitoring of agricultural loans. For these reasons, FIs and MFIs have strong expectations around an agricultural insurance product that would dispel their apprehension to develop this activity because of the perception of the riskiness of these loans. However, some MFIs that have benefited from the technical assistance of the SYFAAH project (Sogesol, some CECs) to strengthen their internal expertise in dealing with agricultural credit have been able to develop a more consistent credit offering with more satisfactory results. Aware of the need to develop in-house expertise in this area, other MFIs have engaged with partners (for instance, the Fonkoze project with IPC helped to strengthen its expertise in agricultural finance, and the FINCA project with FINCA Canada worked on Canadian development financing and agricultural financing strategy and methodology).

- Sogesol started its agricultural lending business with Technoserve as part of a project to support the exportation of the mango sectors with a guarantee fund[29]. However, this experience proved inconclusive. The guarantee fund was insufficient and would not have made it possible to grant the appropriate amount of credit to meet producers' needs. Furthermore, it would not have had the expected debt-relief effect on the "voltigeurs"[30] debt relief. In addition, the lack of proximity to services resulted in high costs of travel and insufficient follow-up, which led to large outstanding payments (45 percent PAR and significant write-offs). Subsequently,

Sogesol led a partnership with the SYFAAH[31] project., It entailed the training of 35 agricultural credit officers and the implementation of a methodology and adapted tools. Nineteen branches (out of 43) with 81 loan officers and 8 promotion and extension agents are now dedicated to agricultural credit. It also benefited from the Agricultural Loan Insurance Fund (FAPAH) guarantee fund (with 42 percent coverage of the portfolio in certain regions), as well as access to the crop insurance pilot set up in the Bas Artibonite region for rice production only[32].

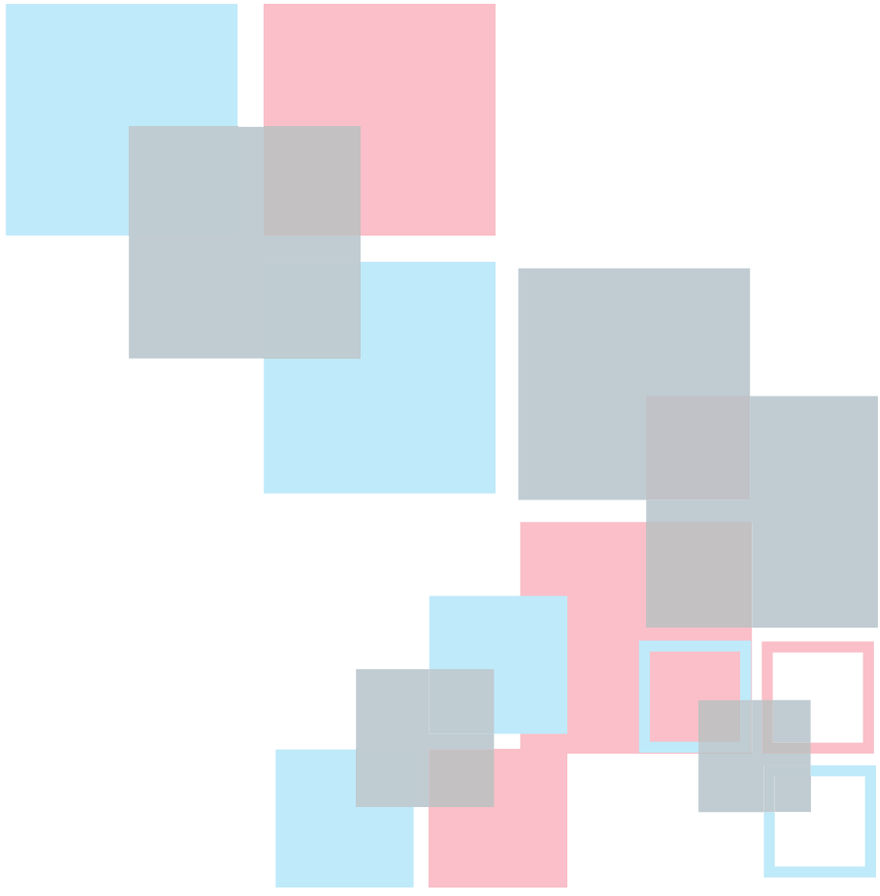
- MCN has received support in the past from programs such as IPC. It has deployed its own methodology based on the development of a standard operating cost based on a cultivated square, by speculation. The repayment schedule has been adapted according to household income, and disbursements are quickly secured (within 1 to 2 weeks).
- Some CECs[33], with the support of the SYFAAH project, improved their credit instruction methods and introduced a 6-month loan for the financing of agricultural production activities They also recruited agro-economists as credit agents. However, the access to credit methodology, with compulsory deposit of 20 to 33 percent between the 1st and the 3rd loan, has not been revised to better serve borrowers in the agricultural sector. This can be a significant obstacle. However, at the level of the Federation, there does not appear to be a clear strategy to address the issue of agricultural finance on the basis of lessons learned from the experiences of these CECs.

The deployment of a local network (non-bank agents/agents) and the use of digital finance are still subject to significant constraints. Proximity is an important factor in reducing people's transaction costs, as well as in improving the financial inclusion of rural populations. Most MFIs have a relatively developed network of agencies in the interior of the country (Map 2). However, the installation of agencies generates significant operational costs and risks given the poor infrastructure (roads, electricity, and internet connection). For example, the displacement of motorized agents in the villages to collect group loan repayments generates costs, risks of fraud and insecurity of funds, which could be reduced with the use of digitization operations (that is, transactions via tablet/smartphone and payments via electronic money), as well as the use of non-bank agents. There are some initiatives to develop a network of non-bank agents and the use of electronic money at the level of MFIs in connection with their parent company (for bank subsidiaries) and/or with Digicell (Moncash), but they are recent.

- For example, Sogesol has 69 service points, 40 of which are SOGEBANK branches and 29 of which are SOGEXPRESS service points (a subsidiary specializing in the transfer of money) and non-bank agents (service stations, shops, and so on). These agents can disburse loans and receive cash repayments. However, there is still no recourse to e-money agents because the network is considered insufficiently developed.
- MCN used the Unibank branch network but developed its own branch network (43). In addition, MCN uses the network of agents established by UNIBANK (with more than 300 currently in 95 municipalities—and soon to be 146 municipalities). They are authorized by UNIBANK to provide the most common banking services. Opening an account named "*Kanè Tout Kote*" with an authorized agent or in one of the branches allows access to money everywhere when using a "Tout Kote" debit card. This card enables consumers to make transfers and deposits on their account or a third-party account; transfers of funds to non-account holders; withdrawals with of cap of HTG 60,000 with alert and transaction confirmation; and online balance verification and activation services via short message service (SMS). Since the introduction of this service in 2014, 400,000 banking customers have adopted it, including MCN customers, generating 25 to 30 percent of new customers and deposit growth. However, challenges remain regarding the liquidity of non-bank agents.

- Fonkoze, Microfinance SA conducted a pilot experiment with Digicell (Moncash) that was not conclusive because of a problem of tool adoption by customers. This highlights the need to improve understanding and reduce mistrust. In addition, in rural areas, the telephone is often owned by the family and is not private, thus, raising issues of confidentiality and the risk of fraud. The ceiling for e-money transactions (HTG 60,000) could also be a constraint for late repayments of credits.
- FINCA has also started a partnership with Digicell for the use of the Moncash service. It would be used for the granting of loans and repayments, and would use a network of agents authorized by Digicell and FINCA who would perform the cash in/out. However, this partnership has encountered constraints with Digicell (concerning technological issues, connectivity quality and uneven coverage of service in the country). To date, the service has been deployed to 13,000 to 14,000 customers, who reside in areas that are rather peri-urban. In an effort to reduce operational costs, FINCA is opening a cashless agency (all of whose transactions go through the e-wallet). In addition to the technical constraints, FINCA notes the need to strengthen the financial education of its customers for better adoption of the e-money service.

The diversification of the offer of financial services for a more inclusive offer able to meet the needs of the rural population faces constraints, or even regulatory gaps. Microfinance institutions of the SA type do not have the authorization to collect the deposits, nor the ability to remit means of payment. Also, they are limited to the supply of credits. They can be under-agents of money transfer operators and offer foreign exchange services. However, the CECs can offer credit services, savings services and payment by check for some of them (as they are admitted to the clearing house by the BRH). Bank microfinance subsidiaries have the option of extending banking services offered by the parent company to their larger clients. At Sogesol, of their 32,000 borrowers, 10,000 have a bank account (accounts with no opening fees and no minimum balance, but which are closed systematically after 3–4 months of inactivity). Small customers are more reluctant to open a bank account because they are afraid of being able to access to their savings (through automatic deduction of their refunds on their account), as well as not being able to maintain a regular level of activity for their accounts. At MCN, those who borrow over HTG 50,000 have an account open at Unibank for credit transfer and automatic withdrawal (optional). Thus, at this stage, the same client of a microfinance SA and/or bank subsidiary will have to go to two different locations — or even two different institutions — to obtain credit and to build up savings, with means of payment still very limited or nonexistent.



Public Intervention in the Agriculture Sector

Policy and Regulatory Framework Issues

Haitian authorities express a desire to promote the development of the agricultural sector through various cross-cutting initiatives (such as the Change Caravan [see below], the PSSANH Programme National et Stratégie de sécurité Alimentaire et Nutritionnelle d'Haïti **the Green Plan,), which also testify to the need for a clearly defined, national financing policy for rural and urban agriculture.** Several analyses and diagnoses of agricultural financing are conducted in conjunction with initiatives/programs from various public institutions (including the BRH, the Ministry of Economy and Finance, the Ministry of Agriculture, the Ministry of Commerce, and so on). A coordination effort seems necessary to harmonize the environment and make it conducive to the development and sustainability of public and private agricultural financing.

- **The food and nutrition security policy and strategy in Haiti (PSNSSANH)**

This is part of the Strategic Development Plan of Haiti (PSDH), which offers a vision of an emerging country by 2030. It constitutes a strategic operationalization. The PSNSSANH also includes the actions of the Change Caravan relating to this area.

- **The Change Caravan**

The Caravan is a presidential initiative based on a multisectoral approach. In the agricultural sector, among other things, the Caravan worked on the draft law on the status of agricultural exploitation, and provided technical and material assistance to the development organization of the Artibonite Valley (an organization of cooperatives and 500 ha block fields; aid included 60 tractors to 5 cooperatives, and technical training to 12 other cooperatives). The Caravan has limited resources (human and financial) given the scale of needs estimated at almost US$800 million, according to the 2010 National Plan for Agricultural Investment. The Caravan is implemented by a steering unit of 4 people, which identifies the actions to be carried out on the basis of a framework document. Its financing is provided mainly by the state budget. As such, the scope of Caravan intervention is limited.

Box 7: Excerpts from the PSNSSANH

This policy is based on two basic strategic decisions: (a) the choice of sovereignty, food security and nutrition, with a focus on international trade; and (b) the choice of family farming as the engine of the economy. This implies a redefinition of the State's relations with importers and producers operating on the agricultural market. Thus, this policy sees a gradual repositioning of two key sectors of the food supply chain, namely:

The marketing sector:

- **Importers and food distributors are expected to become key contributors to the development of local agricultural value chains.** In this sense, they operate in a competitive environment and invest in local agricultural value chains, particularly in terms of production and processing. Their food supply and distribution networks enable them to facilitate the marketing of local products with efficient transaction costs in domestic or international markets.
- **The actors in the chain of distribution for local products, namely the *Madan Sara*, have a competitive advantage in the transformation and marketing of these products.** They are expected to become more professional, with credit lines tailored to their operations and technology transfer. As a result, they should be better able to process and market locally competitive products in the markets.

The production sector:

- **Agricultural producers practicing family farming are called on to become true "agricultural entrepreneurs", which is what farmers are called in the PSNSSANH**. In this sense, they follow intensification strategies to meet the demand of agricultural markets. They buy quality seeds, fertilizers and equipment in open, dynamic and competitive markets. Thus, they can improve the productivity of the sector. They also sell their products to a sufficiently funded distribution network, reducing the risk of a slump in the sector today.

Source: PNSSANH

- **The Green Pact and the Green Fund**

The highest authorities of the State want to make agriculture the spearhead for growth; for this purpose, discussions are underway regarding the establishment of a Green Pact and an agricultural and rural financial system. The Green Pact is to mobilize all stakeholders involved in agriculture including ministries, producer organizations, agricultural cooperatives, the BRH, the FDI, agro- industries, suppliers of inputs and services to agriculture, and the financial system in all its components. It is characterized by three dimensions: the segmentation of farmers to ensure that all are differentiated and adapted; the definition of the priority intervention zones based on government choices already made; and the deepening of specific themes (priority value chains; bio-economy; resistance strategy to climate hazards; taking into account farmers' knowledge, innovation and research; training and extension; water and energy supply, and so on). The financing mechanisms accompanying this Pact would be ensured by the initial establishment of a "Green Fund," which could later become a "Green Bank". The Fund would offer six types of products: savings products (for a limited audience), loans, equity investments, grants, insurance and others including a revolving fund[34]. The management of the Fund would be entrusted to the FDI, and the resources would be made available to all financial institutions. Several theoretical scenarios are envisaged for the creation of the Green Bank. One scenario involves the creation of a cooperative bank or a bank with mixed capital, associating producer cooperatives and other actors

already involved in rural finance. Another scenario proposes a green subsidiary of the BNC.

- **The Financial Sector Development Strategy**

On the financial side, the Haitian authorities are in the process of updating the National Financial Inclusion Strategy (NFIS) adopted in 2013. This strategy is based on five main pillars: (i) financial services to facilitate inclusion and poverty reduction; (ii) credit for economic growth; (iii) local financial services; (iv) education and consumer protection; and (v) capacity building of financial institutions and expansion of financial infrastructure. In particular, the NFIS targets vulnerable groups, such as small agricultural producers, women, Haitians living in remote areas and migrant workers.

Despite this stated desire to facilitate access to financial services, several factors continue to limit private sector engagement. Indeed, there are limitations in the policy and regulatory framework, the financial infrastructure, which hinder the development of agricultural financing and the durability of program interventions (figure 12) .

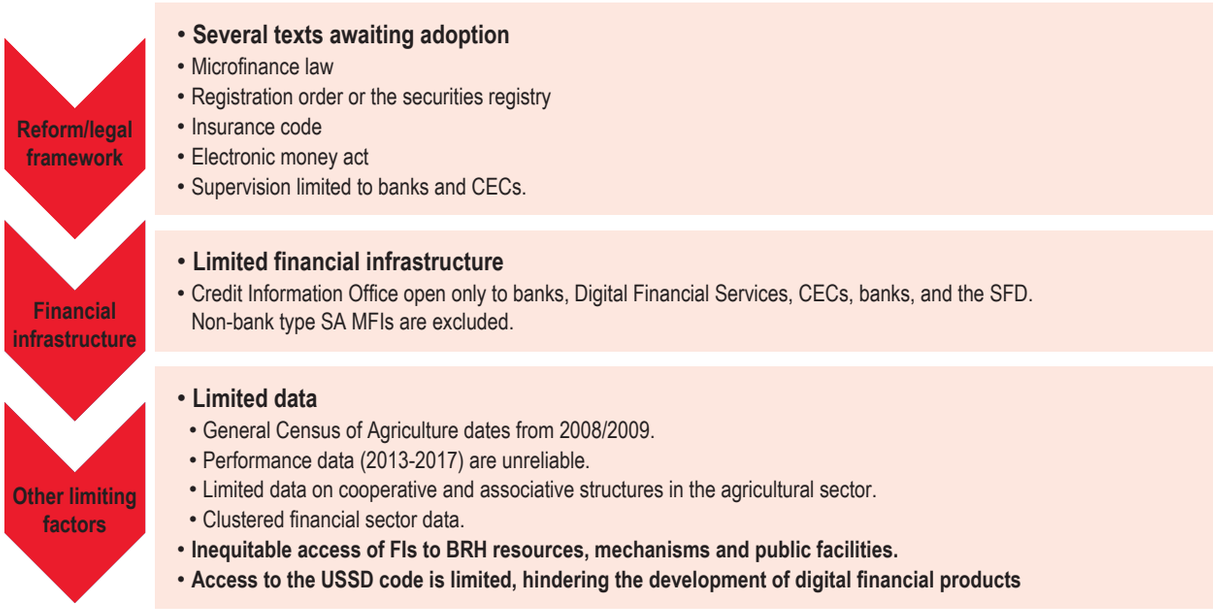
Public Intervention Instruments for Agricultural Financing

Public intervention in agricultural and rural financing in Haiti is established; it has been the subject of various initiatives that have not yet yielded the expected results, given the limited resources allocated to agriculture in the country. These current initiatives have taken the form of: (a) direct financing instruments (BCA, BNC banque Nationale de crédit and FDI) and guarantee instruments (FDI); and (b) refinancing facilities at the BRH utilizing concessionary rates and regulatory incentives.

Direct financing and guarantee instruments

The first instruments put in place date from the early 1950s included the creation of the Haitian Institute of Agricultural and Industrial Credit

Figure 10: Limitations to the Development of Agrifinance



Source: WB mission

(IHCAI), the Credit Agricole Office (BCA); the Institute of Agricultural and Industrial Development (IDAI), and the National Bank for Agricultural and Industrial Development (BNDAI). The purpose of these institutions was to facilitate the provision of short- and medium-term credit to producers and agro-entrepreneurs. Of these initiatives, only the BCA still exists, with a credit portfolio still in progress, but with activity at less than full capacity. The other three initiatives have not survived because of a lack of rigor in lending, governance and insolvency issues, and so on.

- **The Credit Agricole Office (BCA)**

Despite its role as an agricultural financier, only one-third of the BCA's portfolio is devoted to the agricultural sector, and its poor results call into question the relevance of such public intervention. The BCA has an outstanding portfolio of HTG 91 million as of the end of July 2018. The share of agriculture is HTG 31 million, with a delay rate of 30 percent, and the remainder is granted in the form of credits to civil servants. The BCA is not a financial institution, but a technical department of the MARNDR financed by endowments of the State[35]. Originally constituted for supervised credit, that is, credit with technical support from the agricultural producer, the BCA has undergone several phases of reorientation since its creation[36]. Indeed, the BCA, financed intermediaries (financial cooperatives, NGOs and associations) at preferential rates, who then lent to producers. Subsequently, the institution changed its approach and granted credit directly to individuals (SYFAAH 2013). At present, the BCA is again thinking of a new strategy to revive these credit activities. However, the poor results of the BCA in terms of agricultural financing call into question the relevance of this type of public intervention. Specifically, there is a lack of in-house expertise on agricultural financing; a weakness of available resources; centralized credit and disbursement instructions to Port-au-Prince; a credit offer at a preferential rate of 15 percent that is largely below market rates, and which generates windfall effects (and probably explains a good deal of credit-financed officials). In a report prepared in January 2017, BCA management reveals that the institution faces serious weaknesses in human resources, apparently still in significant numbers[37]. The BCA was based on a recovery strategy of decentralized agricultural structures, which did not play the expected role (due to a lack of resources, motivations and expertise). The new BCA management is considering a two-part stimulus strategy: the first part is based on specialized management consultants (CTGs) focusing on farm business financing and targeting the relatively well-structured farm businesses seeking a relatively high amount; the second part entails a positioning on the small credit market through the creation and support of 160 Solidarity Mutuals, which would represent nearly 5,125 family farms. This strategy aims to mitigate the weakness of internal technical capabilities by seeking recoveries for the distribution of credit. The relevance of committing public funds to such a strategy arises because, on the one hand, there are public and private financial institutions in Haiti capable of performing this type of credit (which would require incentives to develop in areas not yet being served). On the other hand, the multiplication of intermediaries generates additional needs to reinforce expertise and control over the use of funding that is not guaranteed.

- **The National Bank of Credit (BNC)**

The BNC, despite its strengths and potential, remains weakly engaged in agricultural financing and is not yet considered by the public authorities as an important potential player in agricultural financing. The BNC (see also Chapter 4), through its product "PROCREDIT" targets very small enterprises (VSEs) and SMEs that are both formal, but with a certain degree of informality, existing and operating for over a year in the processing and marketing of agricultural products and services. The BNC's commitment to agricultural credit started in 2013, but it remains very marginal with HTG 62 million

and 250 loans disbursed. The outstanding amount of agricultural credit is HTG 16 million (out of a total of HTG 16 billion) for 12 customers in local sectors such as maize and cassava. The quality of this portfolio is low compared to the overall portfolio, with a risk portfolio of 15 percent for agricultural credit as compared to 7 percent for the entire credit portfolio. Its main strengths, in addition to being able to access public resources, are linked to its large network of 40 agencies[38] and agents, as well as its recent commitment to digital finance (Lajancash mobile banking service) (Box 8).

The BNC benefits from several incentives put in place by the BRH in support of direct credit to the agricultural sector. This allows it to directly grant loans at concessionary rates of around 6 percent to companies engaged in the processing of agricultural products, as well as the financing of export sectors. This also explains their current involvement in the sector. However, the BNC recently decided to commit more heavily to the financing of the agricultural sector with the objective of spending 5 percent of its portfolio within a 3-year horizon. It plans to start a pilot phase in three regions, and

Box 8: BNC Lajancash

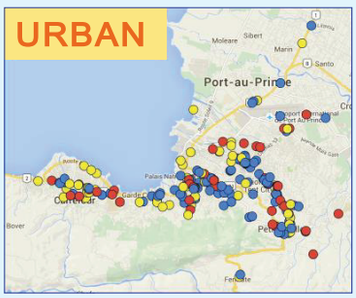
The BNC is the first bank to establish electronic wallet services in 2013 with technical support from the Fintech company, HaitiPay. In August 2018, Lajancash had close to 40,000 customers, of which 3,500 were active at 90 days. About 95 percent of Lajancash's customers are new customers who have no relationship with the BNC. Through the Lajancash account, the customer can access a variety of services including money transfers, transfers and bill payments. Lajancash's services are offered through a network of 305 agents (who are merchants and agents of the BNC). The agent network is spread throughout the country (see map below).

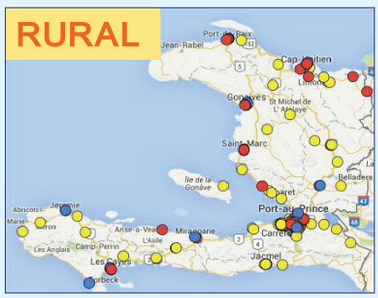
The Lajancash platform records on average 10,200 transactions per month, with an average annual transaction volume of HTG 29 million. The average balance of the electronic wallet is HTG 451.

The Lajancash platform seems to attract increasingly more MFIs who use it for disbursements and repayments of loans. To date, partner MFIs include Palmiste and ID. Also, a pilot phase is underway with FINCA.

Lajancash is operable on any type of mobile phone and with any operator (DIGICEL, NATCOM,) via the USDD channel. To date, the BNC remains the only financier to have access to this channel, outside the mobile operators. Lajancash's transaction fees are summarized in the table below.

BNC's goal is to equip agents with Lajancash's field applications, thereby enabling them to open mobile wallet accounts, and conduct deposits and withdrawals.





TRANSACTIONS	Fees
	Scenario 1
Register new client	Free
Cost for the client Withdraw cost	1%+TCA of the total of all withdrawal
Cost for the merchant Validated transaction	2%+TCA of the all merchant purchase

Source: Lajancash Presentation (2018).

it has started the training of 12 agricultural credit officers with the support of the SYFAAH project. The BNC could also have an indirect effect on agricultural financing if it further developed the refinancing of MFIs, notably under the new BRH circular (see below). These are important actors in agricultural finance (see Chapter 4). The current legal framework does not allow them to collect deposits. As such, it forces them to refinance at market at rates of around 18 percent. At this stage, the BNC is little committed in this direction, with a single line of credit of HTG 172 million granted to a MFI.

- **The Industrial Development Fund (FDI)**

The Haitian government established a financial instrument to support the productive sector, the Industrial Development Fund, which has assets for agricultural financing in the country—but whose mandate should be reviewed for greater efficiency.

The direct funding activity by the FDI on behalf of the ministries and/or departmental programs is underperforming, leading to an evaluation of this activity for its relevance and potential counterproductive effects (clientelism, distortion of competition with FIs,). The FDI is a specialized[39] financial institution originally designed to provide credit guarantees for the productive sector (for all categories, but excluding trade). It has subsequently developed direct financing instruments such as equity financing, venture capital and ordinary and subordinate lending. With a team of some 30 people, the FDI has two sources of funding including regular funds[40] consisting of a loan from the BRH, as well as larger, but fluctuating, resources from special programs (Table 13). These special programs[41], currently six in number, have been established by the various ministries (Economy and Finance, Agriculture, Trade, and so on) as well as development partners (the International Development Association [IDA], the European Union, the Inter-American Development Bank [IDB], and so on). These special programs support a sector and/or specific actors. In general, the analysis of credit files and the eligibility of the file are the responsibility of the Ministry providing the resources. For its part, the FDI will be responsible for financing the client with a portion of the remuneration of interest earned[42]. These special programs lead to the highest unproductive credit rates because of borrower eligibility, often based on non-strictly financial criteria or objectives. In addition, beneficiaries often consider these public funds as non-repayable grants. This poor performance can also pose a reputational risk for the FDI vis-a-vis its partners and customers. Moreover, using its "regular funds", the FDI has been able to refinance 2 MFIs for several years.[43] However, the limited nature of these regular funds does not encourage the FDI to communicate more widely about them. Thus, these programs have had only a very limited impact on expanding MFI access to finance.

The agricultural sector's share of the FDI portfolio remains small, but it is of better quality than the overall portfolio. As of the end of September 2017, out of a total outstanding credit of approximately HTG 5.7 billion for 316 loans, the agricultural sector represented 103 loans for a total of HTG 1.3 billion. Fifty-three loans were made for primary production (crop and livestock) for a total of HTG 794 million, 47 loans for agribusiness totaling HGT 459 million, and 3 loans for aquaculture totaling HTG 25 million. The sectors that benefited from FDI financing are mainly bananas, mangos, sorghum and sisal. The rate of unproductive loans for these credits in the agricultural sector is 2 percent compared to 13 percent for the overall portfolio, of which the special fund credits comprise the largest part[44].

If it is confirmed that the FDI is in a sound financial position and its governance is good practice, with a clear mandate from BRH, it could provide important support to the productive sector, including agriculture. The FDI has certain strengths: i) BRH's control over this institution: it appoints the director who reports to BRH's Board

Table 12: FDI: Special Programs

Special programs	Ministries	Targets	Financial Instruments	Minimum and Maximum Amounts	Conditions
Recapitalization Fund for Haitian Enterprises (FREH) Envelope of HTG 120 million	Ministry of Finance	Haitian companies in the agricultural and industrial sectors	Equity participation; participatory and ordinary loans	From HTG 2 million, without a maximum	Variable tx spell out indexed to turnover (participating loan), and fixed tx for ordinary loans.
Microenterprise Support Program (PSME)	Ministry of Commerce and Industry	Micro companies, investment project	Co-financing; ordinary loan	HTG 50,000 to 1.5 million	8-10 percent, for a maximum of 5 years
Program for Expanding the SME Base in the National Economy (Pacts for Employment and Inclusive Economic Growth)	Ministry of Economy and Finance (MEF)	Micro, small and medium enterprises (MSMEs) in productive sector with project investment	Co-financing; ordinary loan	From HTG 500,000 to 40 million	Maximum 12 percent over a maximum of 15 years
Program of Support to the Agricultural Value Chain (PACVA)	BID Banque interaméricaine de développment (IDB), MARNDR, MEF	Large companies in the agricultural sector: agribusiness	Co-financing; ordinary loan; warranty	US$ 2 to 5 million	10 percent over 15 years
Export Financing Program (EBP)	BRH Facility	Exporting companies, investment project	Co-financing; ordinary loan	Max of US$4 million	6 percent over 10 years maximum
Youth Entrepreneurship Support Program (PAPEJ)	Ministry of Trade and Industry	Youth businesses, <35 years old with investment project	Co-financing; ordinary loan and equity loan	From HTG 50,000 to 2 million	3-5 percent for a maximum of 10 years

Source: FDI (2018).

of Directors and ensures the internal audit of the fund; (ii) an indebtedness of the FDI to BRH at a rate of interest provided for in the protocols binding the two institutions; (iii) a variety of possible financing instruments: participatory loan, ordinary loan, co-financing (syndicated loans), guarantee, MFI refinancing; iv) internal expertise: BRH personnel. However, reservations must be made about the positioning of the BRH within the FDI, with the BRH playing both the role of supervisor and regulator of the institution, single financier and also directly involved in the credit decision (administrator to the credit committee). Recommendations for strengthening and clarifying governance were formulated as part of the transfer of FAPAH to the FDI that is currently being implemented. On the other hand, at the operational level, its limited resources and the diversity of its terms and conditions of intervention between those of direct financier (regular funds), the Governmental financier (special programs) and guarantee fund could harm its effectiveness and efficiency. Because of its mission to support the productive sector, FDI could play a greater role in developing financing for the agricultural sector in Haiti, subject to clarification of its mandate and the involvement of BRH. The prospect for FDI to resume the FAPAH initiated under the SYFAAH project (see below) that has ended is an additional opportunity to engage the FDI in this direction, including by encouraging its refocusing on a mission of refinancing and portfolio guarantees to encourage financial institutions to sustainably finance the agricultural sector. Projects are underway with the World Bank and the EIB that are expected to provide resources (including for agricultural financing) and strengthen the capacity of the FDI over the coming years.

BRH concessionary refinancing facilities and incentives

As part of its monetary policy aimed at ensuring the stability of the Gourde, the BRH is involved in the development of agricultural financing and could increase its structural role in this sector. The objective of the BRH is to ensure a better balance of payments through the promotion of exports and the limitation of imports on food products. As such, the BRH has put in place incentives that include the exemption of reserve requirements on the resources of banks for agricultural credit and two financing facilities, one for export channels and the other very recently for financing agriculture An assessment of the impact of these measures on agricultural financing would be useful in determining the relevance and the need to maintain, adapt or even develop them. The impact is to be assessed in terms of the types of agricultural activities financed as well as the affected segments, but also in terms of access for all types of financial institutions. The category of microfinance SAs (unsupervised for lack of regulation) seems at this stage to be the forgotten category of FIs. However, according to the data they are among the most involved in the financing of agricultural production. In addition to specific incentives, the BRH's overarching role is to develop appropriate financial sector regulation and supervision for all categories of FIs. Firstly, it would promote healthy competition between IFs (fairness to regulation). Secondly, it would allow for the secure development (prudential and regulatory constraints and effective supervision) of financial services and products by all FIs (see Chapter 4).

- **The financing facility for exporting companies**

This BRH facility makes it possible to finance the investments of companies exporting agricultural products and local raw materials. In order to benefit from it, the company must be profitable and its promoters must not be on the blacklist of bad debtors. The interest rate is set at 6 percent per year and repayable over a maximum period of 10 years. This measure has allowed Sofhides, in particular, to develop a portfolio for the agricultural sector (see Chapter 4). However, its relevance is disputed by some companies in the agri-food sector because of the weakness of its local exportable production.

- **The facility for the development of agricultural credit**

This new mechanism, the terms of which are outlined in BRH's Circular 113 (2018), aims to encourage financial institutions (banks, development finance companies and savings and credit cooperatives and MFIs) to finance the activities of those involved in the agricultural sector (production to processing, marketing) and, in particular, to promote investment expenditures. The BRH offers the financial institution (according to its category) direct advances in Gourdes. The duration can be short, medium or long term at an annual interest rate of between 1 and 2 percent. The maximum amount of an advance cannot exceed the equivalent of US$ 4 million per loan approved for long-term projects. Microfinance SAs, unlike CECs and banks' microfinance subsidiaries, will not be directly financed by the BRH. Instead, they will have to go through a bank to access this facility at a higher rate. FIs remain responsible for the selection of borrowers, instructions, grants and credit monitoring. Also, they are subject to different maximum exit rates. The exit interest rate of non-mutual MFIs benefiting from this facility via banks and MFIs is capped at 15 percent per year. The interest rate to be charged to borrowers by CECs is capped at 12 percent per year, and that of banks and SFDs at 6 percent per year for medium- and long-term loans.

The potentially discriminating effects related to the conditions of access described in the circular should be brought to the attention of the BRH.:

- Maximum interest rates are imposed by the BRH to Financial Institutions on their customers. Imposing a ceiling exit rate creates negative effects, including: (i) misappropriation of targeting by FIs and the most sophisticated clients; (ii) ceiling rates that do not provide sufficient margins to make agricultural credit profitable (as indicated in Chapter 4); in the case of non-mutual MFIs and CECs, the margin allowed is only 10 percent; and (iii) the unsustainability of the agricultural financing activity, given the insufficient margins created once the intervention of the BRH was completed.
- According to BRH's Circular 113, there is an obligation to grant the "first refinancing for which an agricultural entrepreneur or a farmer will be eligible under this facilitation mechanism", "to establish basic infrastructure (well drilling for irrigation, implementation in place of an irrigation system, space for packaging and/or storage of foodstuffs, and so on) if they do not exist yet". This obligation seems debatable. It requires investment financing before working capital, and the two objects are closely related. This is even more the case for small farms and/or small-scale processors with high cash-flow constraints.
- In addition, the list of activities to be financed places a particular emphasis on equipment and facilities for the production and processing of agricultural products. However, it is a bit more unclear about the short-term activities relating to

Box 9: Negative Effect of Caps on Interest Rates

The cap on interest rates can have a negative effect on the supply of financing. Indeed, a study conducted by Helms and Reille (2004) found that the imposition of ceilings on interest in the West African Economic and Monetary Union (WAEMU) zone led to the withdrawal of microfinance institutions from rural and isolated areas, as well as an increase in the average size of households in order to improve efficiency and returns. Another study conducted by the World Bank in 2014 found that 76 countries around the world had put in place regulations on wear rates, but that the impacts of this type of regulation are generally negative because of credit contraction with certain borrower segments and higher fees and commissions.

the financing of working capital for production, processing and marketing (campaign credit, working capital credit for trade, and so on). It is important to ensure that all activities in the various agricultural value chains can benefit from this funding.

- Direct financing of campaign credits by banks and the SFD is allowed for loans over HTG 500,000. For small campaign credits, usually made by non-mutual MFIs, the procedure is expanded with two stages of validation, one at the level of the bank that finances the MFI and another at the level of the BRH which refinances the bank. "The list of production activities, their location as well as the duration of the production campaigns to be financed must be submitted to the BRH at the time of the bank's refinancing request ". (Circular 113) This procedure may lead to delays in the release of funds that are detrimental to the financing of campaigns.
- The CECs may benefit from direct refinancing of the BRH by accessing advances of up to HTG 1 million. This difference in treatment between institutions targeting the same types of clientele creates a distortion of competition between CECs and MFIs of the SA type. The same access to funding should be allowed, regardless of the legal form of the structure/institution. The discriminating factor that is not mentioned in the document is related to the performance of the FI and its capacity to issue agricultural credits (adapted procedures, adequate staff, and so on).

- **The measure on reserve requirements**

This measure exempts banks from reserve requirements on resources allocated to agricultural credit. The objective is to reduce the average cost of the resources used for agricultural credit and to consequently allocate credit to the agricultural sector at a lower than usual rate. Table 14 presents the results of this program, according to the BRH.

Innovative Project Mechanisms

Several development partners have initiated innovative programs for the development of agricultural finance. These mechanisms combine several tools (insurance, guarantee, credits, and subsidies) to facilitate the linking of producers/associations with institutions—or to resort to technological solutions to remove the barriers to the development of agricultural financing by private financial institutions. The program that most marks the Haitian landscape is the project called the "System of Financing and Agricultural Insurance" (SYFAAH), implemented by the CIDA- Canadian International Development Agency with contributions from Swiss and French development cooperation agencies.[45]

The SYFAAH is an innovative project that utilizes a comprehensive approach to strengthening expertise and reducing the risk of developing agricultural finance, albeit on a small scale with limited replicability. The SYFAAH innovates in that it: (i) strengthens the capacities of partner FIs

Table 13: BRH: Results of Incentives

	Before the implementation of measures (billions of Gourdes) After the implementation of the measures.	Before the implementation of measures (billions of Gourdes) After the implementation of the measures.
Outstanding agricultural credit	0.1 billion HTG	0.7 billion HTG
Share of credit to the agricultural sector	0.12 percent	0.77 percent

Source: BRH data as of April 2017.

(expertise and methodology of agricultural credit); (ii) strengthens the technical capacities of farmers through support provided by technical management consultants; (iii) reduces credit risk through the establishment of a guarantee fund, the FAPAH; and (iv) reduces the risk of loss of return of the agricultural producer by establishing an index insurance pilot project. The project does not provide direct or indirect financing for agricultural activities and does not intervene in the selection of the beneficiaries of the credits, which corresponds to good practices. The SYFAAH was able to establish partnerships with a MFI, a bank subsidiary (Sogesol) and 4 CECs of the Le Levier network. They in turn benefited from capacity building in agricultural credit, notably the training of loan officers and the adaptation of their credit procedures to the specificities of the agricultural sector. Other non-project FIs, including the BNC, have also requested project support for the training of loan officers in agricultural finance. At the end of July 2018, the project intervened in ten departments, trained 93 loan officers in agricultural finance and claimed a total outstanding of HTG 2.2 billion in loans for 18,800 borrowers. Since the start of the project in 2011, nearly 8.8 billion agricultural credits have been granted to nearly 70,000 borrowers. The crop insurance component of the project provided coverage to 3,592 rice farmers in the Artibonite for an insured sum of HTG 140 million. The Technical Management Advisers supervised 3,029 agro-entrepreneurs, of whom 1,951 benefited from close support. Forty-two percent of these agro-entrepreneurs also obtained access to agricultural credit.

The Guarantee Fund (Agricultural Loan Insurance Fund, FAPAH) is an important asset of this project, which should be sustained by its transfer to the FDI. The guarantee fund established under the project was initially endowed with a capital of HTG 80 million (Box 10). It provides a partial guarantee of portfolio, with a multiplier of 2.36, offering a maximum coverage of HTG 200 million in loans at risk coverage rates of 37.5 to 80 percent of the institution's portfolio. The MFI subscribes to the guarantee fund for a fee of 1 percent of the amount outstanding over the year, as well as a quarterly premium of 0.5 percent on the outstanding amount actually used (guaranteed). However, this cost structure does not allow FAPAH to cover its operational costs. Thus, an allocation equivalent to 25 percent of the fund has been put in place to support its operations. The coverage offered by FAPAH is based on the actual average of the annual outstanding amount by the institution. Thus, each institution has a participation agreement with the guarantee fund, which is generally for a period of one year.

FAPAH does not intervene in the approval of client files upstream of the credit, including conditions (interest rate and guarantee). However, it does intervene in the selection of the FI with regard to compliance criteria and regulatory and financial performance, which is good practice. In the four years of the guarantee fund operations, more than 21,000 loans have benefited from the guarantee for a cumulative loan amount of HTG 1.1 billion. Despite the difficulty for the FI to anticipate the exact coverage rate of the credits written off due to degressive methods of calculation, the interviewed partner MFI considers this device to be a success and a strong incentive to engage in this type of credit. Other FIs may have considered these terms as crippling, and they did not wish to benefit from them. This could possibly be improved as part of the planned transfer to the FDI.

The initiative is being transferred to the FDI to ensure its sustainability by: (i) integrating the staff already working there during the project; ii) doubling the capital of the fund with a contribution of HTG 80 million from the BRH; (iii) establishing a fund governance committee; and (iv) assisting in the transference of skills to the FDI. At this stage, discussions are ongoing between BRH/FDI and the SYFAAH project regarding the methods of the transfer and the

Box 10: Example of FAPAH Coverage

An institution has a FAPAH Participation Agreement for a period of one year (January 1 to December 31), with actual outstanding amounts broken down by quarter: Quarter 1: HTG 8 million; Quarter 2: HTG 10 million; Quarter 3: HTG 12 million; and Quarter 4: HTG 14 million.

According to this Participation Agreement, the average annual outstanding amount of the lender is HTG 11 million. The protective grid that is used to compensate for FAPAH loans has four levels and is indicated in the table below.

	Percentage of average annual outstanding amount hedged		Percentage of payment	
Level 1	5%	550,000	80%	440,000
Level 2	20%	2,200,000	60%	1,320,000
Level 3	25%	2,750,000	40%	1,100,000
Level 4	50%	5,500,000	25%	1,375,000
Total	100%	11,000,000	—	4,235,000

In the event of a natural disaster where the institution must call on the guarantee for its entire loan portfolio, FAPAH would cover a maximum of HTG 11 million (average outstanding amount) at a level of 38.5 percent. Thus, the FAPAH coverage percentage decreases according to the level of claims so as to induce the lender to ensure good credit to maintain a relatively low level of losses. Since the start of FAPAH's operation in 2012, the institutions are mainly compensated according to levels 1 and 2, indicating that the loss rate does not exceed 25 percent of the average annual loans.

Source: Victor Larocque, SOCODEVI.

conditions to be ensured at the level of the FDI (governance and management, among others). As for the improvement component of the management mode of the agricultural activity through the Technical Advisers in Management (CTG), it will end at the closing of SYFAAH. In the absence of a hosting structure that can cover the operating costs of the GTCs, this project's benefit will end as of December 2018. Despite its expertise, the public agricultural advisory service is unable to integrate them due to a lack of resources. The BCA has signaled its willingness to recover some GTCs. However, this possibility may be hindered by the current state of BCA operations.

The crop insurance pilot (ASREC) established within the project was limited in scope, but presented interesting results that could have been pursued with clear political will from the authorities. The SYFAAH project introduced crop insurance as a pilot initiative in 2014 in the Artibonite area. The first phase of the project was dedicated to studies and the installation of three agro-climatic data collection sites. The insurance product offered was based on an average performance index. The ASREC covered 85 percent of yield losses due to phenomena such as floods, drought, excessive rain, insect-related diseases, and so on. The determination of the actual level of performance has been entrusted to an independent third party, *La Ferme de Mauger* (the Farm of Mauger), under the MARNDR. According to studies conducted by SYFAAH, the scientific expertise needed to produce the yield squares is available locally, but the costs

associated with achieving these real returns remain a major challenge. The ASREC was distributed to producers mainly through SOGESOL, which made it a condition for obtaining agricultural credit in rice production. Since 2016, SYFAAH has been experimenting with a distribution channel directly through its agents. It is not related to credit, and is called the "*direk-direk*" model. The credit officers and field agents of SYFAAH have been key players in sensitizing producers about this effort. The insurable value of the producer is based on the cost of production, which has been set at HTG 52,000/ha (or HTG 67,080/square hectare). The premium paid is 3.8 percent of the insured value, that is, HTG 1,680/ha (or HTG 2,167/square hectare). The current premium does not include any administrative costs, as these are covered by the project. The amount of the premium is paid directly by the customer, and before disbursement of the loan in the case of membership via Sogesol. As of July 2018, 3,592 rice growers were insured for a sum of HTG 140 million. Since its introduction, the ASREC has paid producers compensation in the amount of HTG 10 million. The deployment of this crop insurance program has been very limited. It is estimated that the current insurance zone of the SYFAAH project is the entire irrigated perimeter of Bas Artibonite, comprising around 28,500 hectares of rice. With an average of 1 hectare per producer, this represents a theoretical pool of producers of the same order of magnitude. However, despite the involvement of a private insurer in the design and monitoring of the mechanism from the start, the project ended without having been able to organize a transfer to an insurance company or associate a partner for reinsurance. With public support lacking at the data collection level, the MARNDR could not participate and contribute to this assessment of actual yields in the development of crop insurance. Financial support from the Ministry of Finance also did not materialize.

SYFAAH conducted a feasibility study about ASREC migration in commercial mode, which revealed significant unexploited potential due to the non-fulfillment of preconditions for large-scale crop insurance deployment (DID, FADQDI, IICA 2017). The study found that there are nearly 400,000 hectares of crops with real crop insurance coverage potential, representing total insurable amounts of more than HTG 22 billion (or US$376 million). It also identified three main categories of conditions to be met in advance, namely: (i) the minimum conditions, (ii) the commercial conditions; and (iii) the enabling conditions that are necessary for the deployment of a large-scale agricultural insurance program. The non-respect of the conditions considered by SYFAAH to be the minimum is one of the main reasons why this pilot experiment has limitations. These minimum conditions concern the involvement of a competent and motivated insurer; the establishment of a reserve fund for major damage events; and financial support for premium support, at least during the first years of commercial deployment. Thus, according to SYFAAH, without these conditions it is not wise to embark on a large-scale deployment initiative. The ASREC should therefore be completed. It is envisaged that the remaining budget of approximately HTG 80 million will be transferred to the capital of the Guarantee Fund (FAPAH) under the management of the FDI.

Co-financing mechanisms[46] are also emerging in other agricultural development projects and programs. The Artisanal Fisheries Development Program (PDPA) of the Inter-American Development Bank (IDB) has established a co-financing mechanism for investment projects by associations of fishermen and fish traders. This involves associations as well as financial institutions. Co-financing varies between 60 and 85 percent, depending on the nature of the targeted investments of the associations. In order to be eligible for this co-financing mechanism, the associations must have an account in a financial institution. In addition, they must collect the financial contribution (15–40 percent) in the account. The

financial transactions relating to the investment are then made through the account of the association.

The World Bank-supported Strengthening Public Agricultural Services Project (RESEPAG II) included a co-financing mechanism for agricultural extension services and a system of purchase vouchers for adopting technical packages; however, the interaction between the producers benefiting from these mechanisms and the FIs remains limited. The RESEPAG II aims to increase small farmers' access to agricultural extension services and training on animal and plant health. It also aims to build capacities in the MARNDR to better define and implement the Agricultural Extension Master Plan (PDVA). As such, under this project, a co-financing mechanism for sub-projects called the Agricultural Extension Services Co-financing Fund (FSV) was set up. The FSV intake ranges from 50 to 80 percent. Subprojects are selected following a call for proposals. The co-financing agreement is signed between the beneficiary organization and the MARNDR, which coordinates the project. The disbursements (the contribution of the FSV) are paid into a bank account opened specifically for the needs of the sub-project. However, since the co-financing of producers/providers can be of an in-kind nature, the relationship between the grant beneficiary and the bank is limited. Another component of the project focuses on agricultural incentives that involve the distribution of seeds, fertilizers and agricultural equipment using a voucher system. This voucher allows farmers to acquire the agricultural goods and services needed for the adoption of technical packages from approved suppliers. The voucher also helps to ensure that the money allocated is used as intended. The interaction of financial institutions with producers is also limited in this voucher mechanism, since the FI is recruited by the MARNDR as a service provider. It is charged with designing and printing the vouchers and paying the incentives directly to the input suppliers. However, consideration is being given to a greater role for FIs.

The World Bank promotes the use of new technologies, particularly blockchain for the traceability of products, as well as the improvement of the payment system within the value chain and the digitization of the securities register through the Climate Investment and Growth project. This project aims to develop value chains of coffee, honey, cocoa, mango, avocado, pineapple and textiles. It supports the development of a range of logistics services from the field to the final market. The supply of logistics services to producers, as well as the blockchain solution, will enable producers in certain value chains to potentially quintuple their gains. The project established a database identifying producers, crops, Global Positioning System (GPS) coordinates of fields, and so on. As of December 2018, the 13 agents of the Business Support Service (SAE) within the Ministry of Trade and Industry have collected and recorded the information of more than 1,300 producers in the database. They offer producer advisory services and are in charge of intermediation with the various service providers. The project plans to collaborate further with the Strengthening Public Agricultural Services Project (RESEPAG II) for agricultural advice to beneficiary producers. The payment solution via blockchain enables payments in a mobile account. This would reduce the use of cash and build a transaction history for participants in different links, especially producers. In order to encourage logistics companies to take an interest in the Haitian market and the development of value chains, the project has put in place a guarantee system. This guarantee system covers 75 percent of the costs of the logistics service for producer services, generating annual revenues of less than US$ 10,000, and 50 percent for those generating annual revenues below US$ 100,000. The project is coming to an end in November 2019, and business support services to producers and the guarantee system will end with the project. Discussions are underway for a 2-year extension given the start-up delays and restructuring that the project has experienced.

At the same time, discussions are ongoing to ensure the sustainability of the SAE through the assumption of the profits of the producers receiving the service.

Private Sector and Agricultural Finance

Despite the diversity of instruments, actors, and supporting measures and incentives put in place by the authorities, the sustainability of public interventions with larger-scale involvement of the private sector in agricultural finance remains a major challenge. The private sector considers farm financing risky, and risk management mechanisms introduced in the country as agricultural insurance have been limited to pilot experimentation. The distribution of a climatic index insurance product at the meso level (credit portfolio cover) was tested by Fonkoze and MiCRO. This experience was interrupted shortly after its start because of, among other things, basic risk and insufficient size for reinsurance. SYFAAH introduced its farm insurance pilot at the micro level. Several factors related to the design of the pilot are at the origin of the lack of sustainability of this innovative risk management product in the agricultural sector. At the project level, the initiative was conceived as an experiment to demonstrate the feasibility of such coverage in the country. However, the commitment of the insurance companies has been weak. Only the Alternative Insurance Company (AIC), which is a multi-line private insurance company, participated as an observer alongside the project in piloting this product. However, the AIC did not benefit from the transfer of knowledge and expertise needed to fully take over after the project. The premium set and paid for by rice farmers is also not based on a sustainable economic model. Indeed, this premium corresponds to the pure risk, without including the administrative costs that are insured by the project as well as the reinsurance costs (which were not foreseen in the device given the small size).

Agricultural insurance does not enjoy a favorable environment in Haiti in terms of moving toward large-scale development.

Perennial agricultural insurance programs are based on, among other things:

i) A well-defined legal and regulatory framework;

ii) Availability of a series of agro-meteorological data over a period of at least 10-15 years;

iii) A commercial premium taking into account pure risk, administrative costs and reinsurers' expenses;

iv) Appropriate distribution channels to reach producers;

v) Financial education and ongoing producer awareness initiatives; and

vi) Substantial public support which is often translated into premium subsidies.

- In Haiti, the insurance code has been submitted to Parliament; however, it has still not been adopted.
- Regarding the availability of data, the Directorate of Agricultural Statistics has agricultural production data at the departmental level for 2013-2017. Yield data and losses are difficult to establish because there are doubts about the actual areas planted. Moreover, the methodology to determine them is not very rigorous and relies on the information provided by the producers themselves. This lack of data represents a major obstacle to developing reliable insurance products that meet the protection needs of farmers. This data is also needed to establish a fair pricing of the insurance policy. The country's risk environment also weighs on the cost of the premium. However, currently there is no public incentive, such as subsidy premium or tax-free premium in Haiti. Similar programs around the world (India, Senegal, Uganda, and so on) are accompanied by this type of public subsidy in order to make the payment of the premium more accessible to the producer.

- In addition, distribution channels to reach producers represent a major challenge for insurance companies. The actual presence (number and dispersion in the territory) of cooperatives and producer organizations is unknown by the Ministry of Agriculture. Added to this are the organizational weaknesses within these cooperatives/producer organizations. As part of the SYFAAH experience, the product was distributed by MFIs who made insurance a condition of access to agricultural credit as well as insurance agents. However, the costs remain significant.

This is in line with the findings of the commercial ASREC migration feasibility study which summarized the prerequisites for large-scale deployment into three categories. These conditions are summarized below:

- ***The minimum conditions without which it is not wise to embark on a large-scale deployment initiative:***
  - *The involvement of a competent and motivated insurer*
  - *Establishment of a reserve fund for major damage events*
  - *Financial support for premium support, at least during the first years of commercial deployment.*
- ***Adequate business conditions are a major challenge for the insurer and should:***
  - *Have access to sufficient potential market*
  - *Establish an extensive and efficient distribution network*
  - *Quickly increase the volume of the insured*
  - *Simplify the product and management processes*
  - *Minimize administrative costs of the program*
  - *Benefit from a transfer of expertise and data*
  - *Develop other products in other regions to expand the crop insurance market and mitigate the risk of insurers.*
- ***Facilitating conditions are long-term actions that are primarily the responsibility of the State; such conditions will indirectly facilitate the implementation of insurance solutions.*** *The main actions of importance including the following:*
  - *Implement a specific and evolving regulatory framework for crop insurance, allowing structured sector development and quality control of products marketed.*
  - *Introduce a tax incentive policy for agricultural insurance products.*
  - *Create a real register of agricultural producers that would facilitate their identification, location and the establishment of their status.*
  - *Improve the land system to facilitate the organization of the agricultural parcellaire (plot).*
  - *Improve the state of irrigation and drainage systems of the irrigated perimeter of the Artibonite river.*
  - *Improve the access conditions of producers to inputs, mechanization services and technical support.*
  - *Facilitate farmers' access to agricultural credit.*
  - *Establish a structured and disaggregated database on production, yields and the influence of climatic and natural factors on crop injury.*
  - *Establish a policy to support the development of domestic rice (compared to imported rice).*
  - *Facilitate conditions for the marketing of local rice.*

The asymmetry of information between FIs and agricultural producers continues to hinder private sector engagement, despite the establishment of a credit bureau. With support from IFC , the BRH has developed a credit information system based on international best practices. It included the drafting of a code of conduct and a subscription agreement for the credit bureau based on the general principles

of the World Bank for credit reporting. This Credit Information Office was launched in October 2014. However, it is accessible only to structures supervised by the BRH (banks, SFD, CECs). As such, it does not concern microfinance SAs. In October 2018, eight banks, three credit card companies and two MFIs (reporting through the banks of which they are subsidiaries), one finance development company and one leasing company are affiliated to the BIC. The BIC Database recorded 1,007,503 credits. The BIC data on agricultural credit includes credits granted by Sogesol and CMN. In addition, there is no law concerning the organization and operation of credit bureaus, allowing all actors in the financial and non-financial sector to provide and consult the credit information of the office. Currently, the BRH credit bureau is only supplied by and accessible to supervised institutions, even if they do not report (CECs for example).

The guarantees offered by agricultural producers are also a factor limiting the financial sector's appetite for them. Agricultural producers generally have three types of guarantees: land, equipment and production outputs. Land fragmentation and tenure means that land is rarely used as collateral. Haiti does not have an effective national land registry and lacks a comprehensive and functional land registration system. Before the earthquake in 2010, land tenure in Haiti was characterized by customary provisions and knowledge, with only 40 percent of landowners holding documents such as a legal title or a transaction receipt (USAID 2010). Registration was more common in Port-au-Prince and other rural areas. Areas of highly productive land, such as the irrigated areas of the Artibonite Valley and the plains of Gonaives, have created local land registers. However, they have not been retained and records are not current. In Haiti, the Directorate General of Taxes (DGI) is responsible for maintaining and updating registration registers. However, the veracity and accuracy of land registers are suspect, and there is widespread mistrust of government institutions, including those responsible for documenting, maintaining and enforcing land claims. The current status of documents related to land ownership is unknown. In addition, the DGI building was severely damaged by the earthquake and the current state of the land records or efforts to secure them is unknown. Many advocate primarily for the recovery and protection of the land records kept at the DGI.

Regarding the equipment and output of production, since 2014 the World Bank has been supporting the modernization of the movable asset registry, specifically to make it electronic and centralized. The law reforming the security of movable property rights in Haiti was approved by the Chamber of Deputies in 2017, however it is still under discussion in the Senate. The adoption of the draft law on personal property security is crucial to creating a legal framework conducive to the use of such securities, which may be a type of guarantee available to certain categories of agricultural producers and agribusiness SMEs.

Leasing helps to facilitate access to equipment, but the law is awaiting approval. The Haitian authorities, with the support of the IFC, have carried out actions aimed at improving the legal framework, notably the drafting and revision of the draft law, the drafting of the BRH circular determining the conditions under which operations are carried out, and the drafting of BRH's leasing operations manual. The IFC has also supported advocacy and capacity building for government officials, SMEs, the central bank and FIs. However, the law has not yet been approved.

Digital finance offers the promise of a significant reduction in transaction costs, but its development is subject to legal and regulatory constraints. According to a study by McKinsey & Company (2016), digital technologies can help reduce the cost of delivering financial services by 80-90 percent. At the same time, such technologies reduce transaction costs for customers, improve the security of their transactions, and help them to manage their cash flow more flexibly. In Haiti, there

is no legal and regulatory framework for electronic money, which is at the heart of digital finance. The BRH has issued a directive on distance banking. This directive limits transactions to HTG 60,000, which represents a constraint for transactions relating to the repayment of loans *in fine*, as well as financing within value chains whose amounts can easily exceed this ceiling. Finally, access to USSD codes is essential for the provision of financial services via mobile telephony. Mobile network operators (MNOs) must be required to provide quick access to USSD codes to third parties, even if this leads to competition with their own products and services. Currently in Haiti, the USSD codes are open to OTM and the BNC, allowing the latter to offer the Lajancash product (the BNC has benefited from its status as a public bank to access it).

Recommendations to Promote the Financing of the Agricultural Sector

The recommendations presented in this section aim to address the main constraints to promoting sustainable financing of the agricultural sector by Haitian financial institutions. These recommendations emphasize the availability of agricultural finance, while also recognizing the importance of broad agricultural support policies that play a vital role in the development of financial services for the sector.

The objective is rural and agricultural financing that is both sustainable and adapted to needs, provided by the private financial sector. The involvement of the private financial sector requires a favorable and encouraging environment that the Government and the BRH can ensure through measures and devices that contribute to ensuring healthy competition (adapted regulations and access conditions to transparent and equitable facilities for all FIs). Such an environment would also help to reduce the risks faced by FIs (guarantee mechanisms, low-cost refinancing, crop insurance, quality of producer organizations). Some of the suggestions can be adopted and implemented through the financial inclusion strategy in the revision phase or in the framework of the National System of Agricultural Finance (SNFA) whose draft bill has been developed and will be submitted to the parliament.

Evaluate Public Interventions in Agricultural Sector Financing

Background

The Haitian authorities show their willingness to promote the development of the agricultural sector through various cross-cutting political initiatives (such as the Caravan of Change, the SPSSANH, the Green Plan, and so on). However, these initiatives from different ministries make it difficult to interpret the Government's guidelines on agricultural and rural finance policy. In addition, the initiatives/instruments to increase agricultural financing (direct financing and guarantee instruments, BCA, and FDI), concessional refinancing and other BRH incentive refinancing are either sequential or are at odds with each other. Also, there is no evaluation to assess effectiveness and impact. Furthermore, the low proportion of funding granted to the agricultural sector so far does not indicate that they are effective.

In addition to a coordinating body to clarify the policy framework, a review of public agricultural financing instruments and incentives in Haiti is needed to improve its effectiveness and impact on agricultural finance.

Recommendations

- **In order to ensure better coordination and monitoring of the various measures and instruments to support agricultural finance, it is suggested that a technical unit be established; the unit would be composed of representatives of the Ministry of Finance, the Ministry of Agriculture, the Caravan, the BRH and the private sector (including the professional association of banks, CEC, MFIs).** This technical unit will be the central point channeling public initiatives and measures aimed at promoting the mobilization of financing to the agricultural sector. It could be mandated to define a roadmap, based on the various studies and studies conducted in Haiti on the issue of agricultural development. As such, it would help to clarify the respective orientations and roles of the different ministries and the Central Bank in terms of the financing of agriculture. Importantly, this technical unit must also be represented in the NFIS coordination body.
- **From the evaluation of the various mechanisms, a rethinking of the complementary roles that the different public institutions can play in the promotion of agricultural financing by the private sector is in order.** Each would work according to their respective comparative advantages:
  - The BNC, a public bank, could intervene in the refinancing of MFIs/CECs and the direct financing of certain productive segments (agribusiness) and in the priority sectors.
  - The BCA, an office of the Ministry of Agriculture specializing in agricultural financing, has assets in supporting and reinforcing producer organizations to ensure at the end a more targeted demand for higher quality financing.
  - The FDI, a guarantee instrument supervised by the BRH, is the appropriate body for the implementation of a partial guarantee of portfolio according to the good practices (and possibly the refinancing of the FIs under certain conditions of organization and governance).
  - The BRH has a decisive role to play as supervisor of the FIs and in the evolution and adaptation of regulations. Incentives adopted should be subject to continuous evaluation and should not result in market distortions between the public and private sectors and between different types of FIs.
- **In order to find the most appropriate incentives for agricultural financing, the question of the interest rate will have to be addressed** in an open debate between the FIs and the public authorities**.**
- It will be necessary to conduct a study about the determinants of the cost of credit, according to the targeted customer segments. This study should target all types of institutions (banks, cooperatives, MFIs). The results will identify and weigh the components of these costs (operational costs including HR, travel, risk costs, resource costs, and so on) and define the appropriate measures to be put in place by type of FI to reduce the cost of credit for their customers. This should be done without jeopardizing the sustainability of MFIs by arbitrary caps on interest rates, which have not demonstrated their effectiveness.

Complete/Adapt the Legal and Regulatory Framework

Background

The lack of a favorable legal and regulatory framework constrains the provision of financial services in rural areas in general and the devel-

opment of agricultural finance in particular. The microfinance sector, especially the SA institutions most involved in agricultural credit, is evolving without a legal and regulatory framework. This situation, which translates directly into a lack of BRH supervision, has significant consequences, such as the exclusion of these structures from certain incentives (see the BRH Circular and security (BIC). It also limits their service offerings (collection of deposits, means of payment), which is detrimental to expanding financial inclusion. In addition, several bills are pending adoption (insurance) and some existing frameworks need to be revised (CEC law, and so on).

It is suggested to adopt the draft laws on microfinance (after revision), insurance, the law on electronic money, the decree of application of the register of personal property security. In addition, it is important to proceed with the revision of the law on the CECs to professionalize the offer and secure the activities.

Recommendations

- Update bills that have been submitted for adoption more than 2 years ago to reflect changes.
- Revise the regulatory framework on CECs to enhance security and encourage initiatives in the provision of financial services to rural and remote populations (compliance of unauthorized CECs and/or activities); Introduce revisions in the areas of minimum capital, governance, capital, transparency and guidance of CFI members. Give the BRH the exclusive role of registration, authorization and liquidation of CECs, as well as the ability to impose monetary penalties. Also, the BRH should revise prudential regulations to put more emphasis on the quality of risk management and regulate foreign exchange management. In addition, it should improve accounting and auditing rules, and establish a certification process for auditors (and maintain a list of certified auditors)[47].
- Establish/reinforce the risk-based supervision system for MFIs and CECs, adapted to all categories (including subsidiaries of banking groups and microfinance SA).

Enhance the "Financing of Agriculture" Approach

Background

In Haiti, family-based agriculture dominates, with 1,018,951 family farms producing several crops on the same plot, as well as raising small livestock. A Haitian farm household cultivates about 5 crops and combines farming with livestock and other income-generating activities (including commercial activities). Thus, it becomes difficult to estimate the financing requirements for a specific crop during a crop year, and it requires more diverse basic services (World Bank 2014). The use of informal forms of credit (by 54 percent of the rural population), including savings and money transfers remains very common, and demonstrates the need for more diversified financial services.

Recommendations

A rural finance approach should be favored and encouraged by the authorities. As it is broader than agricultural credit, it allows for a diversification of the supply of financial services (savings, credit, payments, electronic money, money transfers, and so on). Thus, it contributes to enhanced financial inclusion of the rural population.

- The development of electronic money (via Lajancash, Moncash and other initiatives to come) and the use of non-banking agents (remote banking) presents real opportunities on which to build the rural finance approach. In fact, the existing network of electronic money agents is quite dense. An electronic wallet makes it possible to store value, carry out transactions (transfers, payments) and create a transaction history, which could possibly

be used for evaluation of the funding request. The use of non-bank agents (merchants, multi-services agents, and so on) enables FIs to reach populations in the most isolated localities. As such, they can offer them a more diversified range of services including savings products in particular. In addition to the diversification of services, this approach also has significant interest to Haiti in terms of reducing the FI costs of access to these populations. Ultimately, it should help to reduce credit costs (through reduced operational costs, diversification of FI revenues).

- The digitization of state payments to rural populations, as well as payments within value chains of agricultural export products, will allow for the wider adoption of electronic money in rural areas. The State can facilitate the adoption of electronic money by gradually utilizing this method of payment and by encouraging companies (including exporters) to adopt it for their payments.
- Capacity building will be required for financial institutions to enable them to benefit from the development of electronic money by integrating into digital finance and developing their network of agents. This technical assistance could be coupled with start-up/investment grants. The program of digitizing institutions will include the development of a business model and digital finance procedures, the upgrade/updating of the IT infrastructure of institutions (with Information Management Systems, applications and computer equipment), as well as partnership development, change management, and so on.
- Technical assistance should be made available to financial institutions to adapt and develop a diversified offering of agricultural and rural finance. This support will focus on the development of loan methodologies adapted to the multiple sources of income and cash flow of agricultural producers, as well as on the development of an offer of adapted savings products.
- Regulations will need to be adapted to enable the adoption of a wider range of financial services to FIs, particularly the collection of deposits and the provision of means of payment (especially digital) for non-bank affiliated MFIs.
- Special measures to reduce the over-indebtedness of rural households will need to be taken, notably through better knowledge of these processes and the sources of mainly informal debt. This could be done through field surveys. For example, these measures may include credit programs developed with CECs and MFIs over longer periods of time to facilitate deleveraging through public incentives.
- Targeted financial education initiatives and/or programs can also help reduce the use of informal loans and encourage better use of formal services including savings.

Better Risk Management of Financial Institutions

Background

In Haiti, there are many constraints, including land-related constraints, such as obtaining and authenticating land titles, fragmented land holdings, and legal provisions limiting the use of land as collateral, and limiting access to land. In addition, most small farmers have difficulty accessing credit.

The supply of agricultural credit is also constrained by the risks to which the agricultural sector is exposed, particularly the production risks (hurricanes, and so on), and the market risks.

Risk reduction experiments (guarantee funds, insurance) carried out in the context of projects showed encouraging signs (positive evolution of the agricultural portfolio of the FIs; improvement of expertise; level of controlled failure of the guaranteed portfolios, and so on). However, it could not be developed on a large scale and sustained for various

reasons related to the initial design, the available resources, the (still) weak ecosystem, and to a lesser degree weaknesses in the State (sustainability of index insurance).

In order to help mitigate risks and promote the sustainable expansion of agricultural credit, it is recommended to: (i) revisit the Partial Portfolio Guarantee Scheme by ensuring that good practices are followed; and (ii) establish the prerequisites for the development of a sustainable national agricultural insurance program.

- **Revisit the planned partial guarantee scheme within the FDI, ensuring compliance with good practices.**

Suggestions for the Implementation of a Guarantee Fund Operating in a Sustainable and Efficient Way

Based on the Guiding Principles for Portfolio Guarantee Funds (PGFs) established by the World Bank following a worldwide review of different funds, particular attention should be paid to:

- **Governance and oversight:** The PGF will need to be managed by a professional institution, ideally a private institution with management autonomy. The FDI has a major asset as a guarantee fund manager. It is suggested to refocus FDI interventions on partial FI portfolio holdings.
- **Diversification:** The PGF will be required to cover a diversified portfolio of agricultural loans, both by sector and by stage of the value chain (production, processing, and so on).
- **Risk-based pricing:** The long-term credibility and sustainability of the PGF depends on its ability to cover its costs. Transferring the management costs of the PGF to financial institutions, according to their risk profile, achieves this objective and provides risk management incentives for financial institutions. This risk-based pricing also simplifies the operationalization of the fund. Indeed, the level of risk sharing (coverage) remains the same (not declining, as in the FAPAH framework). However, commissions paid by the participating institutions increase according to the deterioration of their portfolios.
- **Targeting:** Individuals with limited access to credit (for example, small businesses, agricultural cooperatives, businesses and individuals considered "risky", and specific geographical areas).
- **Coverage:** Less than 80 percent and no interest coverage to reduce the moral hazard of financial institutions.
- **Guarantee activation procedures:** Guarantee activation procedures must be initiated quickly after a default.
- **Eligibility:** This FGP must be accessible to banks, CECs and MFIs. It should also be in compliance with regulatory obligations (reporting to the credit bureau) and prudential provisions.
- **Costs:** in order for a guarantee fund to cover its management costs, the volume of this fund must be at least US$ 5 million and will cover a maximum loan portfolio of US$ 20 million. This calculation is based on the following assumptions:
  - Minimum management costs: US$ 300,000.
  - Fees charged to financial institutions as a percentage of the credit amount: minimum 1.5 percent.[48]
  - Leverage effect of the guarantee (volume of the fund/volume of the guaranteed portfolio): maximum 4.[49]

A detailed assessment of the volume of a sustainable, efficient and credible fund in the Haitian context will require an analysis of the potential demand for credit for each value chain.

- **Put in place the prerequisites for the development of a sustainable national agricultural insurance program**

Agricultural insurance allows farmers, financial institutions and governments to protect themselves against the financial impact of disasters (for example, drought, flood, diseases, and so on). In particular, agricultural index insurance is a type of product that compensates policyholders on the basis of objective criteria (for example, rainfall, average area yield). This type of insurance can reduce the moral hazard of policyholders and eliminate on-site inspection costs. However, it requires certain preconditions.

A well-designed farm insurance program with reliable products can coexist with guarantees to protect both financial institutions and producers. One of the possibilities is that insurance helps to deal with systemic risks such as those caused by climate haz-

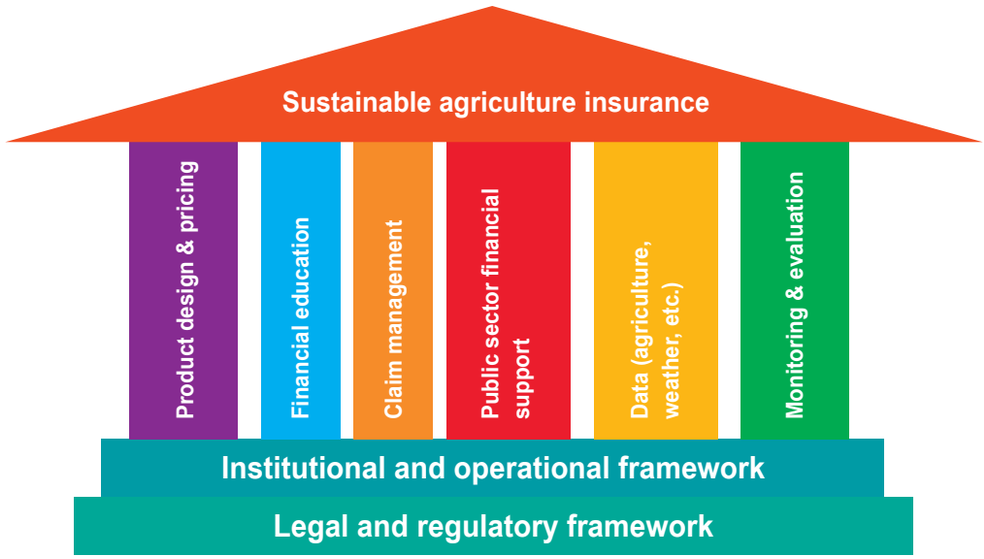
Suggestions for the Development of a National Agricultural Insurance Program

Based on the World Bank's experiences of supporting the development of large-scale agricultural insurance programs, particular attention should be paid to the following:

- **A public-private partnership is essential:** Agricultural insurance is a complex financial product, and most public-only initiatives lack efficiency, and private initiatives face challenges in scaling up. Thus, the success of agricultural insurance programs rests on two pillars: the public and the private. In this partnership, the state has five major roles: (i) data (collection, audit, management); ii) demand support (premium subsidy, financial education, and so on); iii) risk financing (public reinsurance, promotion of co-insurance); (iv) enabling environment (legal and institutional framework, consumer protection); and (v) incentives for the design and development of products by insurance companies. The responsibilities of private sector actors, including insurance companies, are: (i) product design, development and pricing; (ii) innovative distribution channels; (iii) compensation management; and (iv) reinsurance agreements.
- **A well-defined legal and institutional framework:** Notably, this includes the insurance code, a program steering committee and technical working groups bringing together all the stakeholders (including the Ministry of Agriculture, the weather agency, producers' organizations, financial institutions, insurance companies, and so on).
- **The technical capabilities of insurance companies and incentives:** These capabilities should be enhanced to develop and deploy insurance products, as well as to manage large-scale compensation.
- **Financial education of producers:** Insurance is a complex financial product and it is important to invest in raising awareness among producers.
- **Incentives for both demand and supply:** Similar programs around the world have introduced premium subsidies to make agricultural insurance products more accessible to producers. Subsidies have a significant tax impact, hence there is a need to design them well. Also, given the systemic risk in the agricultural sector and the limited experience of both insurers and producers with agricultural insurance, the recommendation of the SYFAAH study should be followed. Specifically, it requires the establishment of a reserve fund, housed outside the insurers' own funds. It must be set up to cover the potential indemnities to be paid in the event of major damage and to support the premiums. As such, it will help to drive the deployment of a national agricultural insurance program.

Figure 13 illustrates the fundamentals and pillars essential for the development of large-scale agricultural insurance programs.

Figure 11: Perennial Farm Insurance Program



Source: World Bank Disaster Risk Finance Program (2018).

ards, as well as guarantees for other causes of default. When the insurance is linked to credit, and there are indemnifications, these can be used directly for the repayment in case of default. However, often there are calls for the guarantee when all the recourse for collection are exhausted, causing costs and delays.

When the producer does not use credit, insurance can also be part of a social safety net program, as is the case in Kenya with the National Livestock Insurance Program (KLIP). The KLIP is implemented through a public partnership between the Government of Kenya and the private sector. As part of the KLIP, the government acquires annual drought insurance coverage with private insurance companies on behalf of vulnerable pastoralists. The government then fully subsidizes the premium for vulnerable pastoral households. Although livestock insurance is purchased by the government, insurance companies pay claims directly to beneficiaries in the event of a drought-triggered payment. Payments are made to beneficiaries' bank accounts or their mobile money accounts.

Strengthen Agricultural Sector Demand

Background

The level of structuring among producer organizations is low, and value chains operate mainly on informal exchanges with very informal indebtedness in rural areas.

It is suggested to develop initiatives to strengthen the solvency of demand through better supervision and technical assistance and advice to agricultural cooperatives.

Recommendations

- Refocus the intervention of the Ministry of Agriculture on technical support for producers and assistance to farmers' organizations, agricultural groups and cooperatives.
- Rethink the BCA system, given its limited resources and expertise. Focus its interventions on counseling to improve the solvency of projects and support for better access to funding for producer

organizations. The BCA will work closely with the agricultural officers of the Ministry of Agriculture.

- Strengthen the capacities of cooperatives (for example, governance, operational management, financial management, improvement of agricultural practices, preparation and dissemination of data sheets, and so on) through technical assistance projects.
- Create financial education modules that contribute to a better adoption of formal financial products and services, including digital finance.
- Co-financing initiatives in the projects represent an opportunity to facilitate the mobilization of credit from the FIs. It is suggested that the FIs be involved in co-financing from the beginning in order to build a relationship between them and the beneficiaries of the project. It would help to motivate them to grant credits to finance a part of the activities. This involvement of FIs may consist of, among other things, entrusting the management of grants, including evaluation and disbursement, to beneficiaries. They could also set up savings programs to enable beneficiaries to mobilize their counterparts. Finally, they could advise in the preparation of business plans, and so on.
- Support the professionalization of *Madan Sara* through the establishment of a collective/association. Given their proximity to producers, *Madan Sara* will be able to play a role in facilitating their access to financing.

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Endnotes

1. Under the supervision of the BRH.
2. This includes the Swiss Confederation and the French Development Agency (AFD).
3. The Republic of Haiti has an area of 27,750 square kilometers (kms2) of which 7,700 square kilometers (km2) (or 29 percent of the territory) is exploitable for agricultural purposes.
4. Projected GDP in 2025 would be US$ 4.38 billion, and the cost of climate change in 2025 would be equivalent to US$ 438 million for the agricultural sector (Bueno and others 2008).
5. The average yield at the national level is about 225 kg per hectare, while at the world level it is 600 kg/ha of coffee and between 750 and 1500 kg/ha in the Latin America and Caribbean region.
6. INCAH-Haiti. See: http://www.incah-haiti.gouv.ht/realisations
7. A private company under Haitian law, created in January 2014 by the Clinton Giustra Entreprise Partnership Fund.
8. This franchise brand is created and owned by a Haitian NGO called Veterimed.
9. GRET is a French NGO
10. The financial account in this report concerns checking and savings accounts or the mobile wallet. The holder of a formal financial account ("financially included") is defined in the survey on Financial Capability and Inclusion in Haiti as the percentage of respondents reporting having an account (by themselves or with another person) in a bank or other type of financial institution (microfinance or decentralized financial system), or having personally used a mobile wallet in the past 12 months.
11. Traditional operators are money transfer companies.
12. On average, the size of a farm is 0.95 ha, generating income of up to US$ 300 per ha under the best conditions, and most often between US$ 100 and US$ 200.
13. The level of financial literacy was measured through a test on financial concepts administered to survey participants. The seven questions

included topics such as interest rates, inflation, risk diversification, insurance, and more. The score is based on the number of correct answers provided. It ranges from 0 to 7, with 0 indicating respondents who did not answer all the questions correctly, whereas a score of 7 indicates respondents who answered all questions correctly.

14. This includes 5 private banks: Banque de l'union haïtienne, Capital Bank, Sogebank, Sogebel, and Unibank.
15. According to BRH statistics as of June 30, 2018.
16. This is according to the data transmitted at the end of July 2018 to the BRH (which does not provide the amounts of credit granted).
17. See Chapter 5, Public Devices and Incentives.
18. Since 2011, the FRICS has been acting as an "arm" of the KNFP for credit activities with the POs and the MUSOs and partly in funding the KOFIP but its loan outstandings are extremely low (HTG 6 million at the end of July 2018) with a total loan allocation since 2011 of HTG 44 million.
19. SIDI is a French investment and international development company linked to the network of the NGO Catholic Committee against Hunger and for Development (CCFD).
20. See Box 5.
21. See Chapter 5, Public Provisions and Incentives.
22. Data about the number of SMEs in the processing and marketing of local agricultural production sector is not available.
23. The Federation of "Le Levier" credit unions was created on June 30, 2007.
24. According to the BRH, 59 CECs are approved by the BRH and the National Council of Cooperatives (CNC) at the end of July 2017, including more than thirty of the "Le Levier" federation and another recently created association known as "The Member". With 11 CECs, founding members, this new federation organized its constituent assembly in January 2017 while waiting to be legally recognized by the competent authorities. (BRH 2018).
25. The ANIMH includes the MFIs Sogesol, MCN, MCC, ACME, Fonkoze, FINCA, and FAHF.
26. The KNFP includes RSFP (Network of MUSO), KOFIP, FAHF, AVEC, and RODEP.
27. One carreau is equivalent to about 1.29 ha
28. However, Fonkoze has an authorization allowing it to collect deposits.
29. Available funds of US$ 120,000 were used as a 75 percent guarantee at 0 percent on the 4th loan.
30. "Voltigeurs" is a Haitian term for the people collecting the mangos.
31. See Chapter 5 for a presentation of SYFAAH.
32. See Chapter 5 for a presentation of FAPAH and Crop Insurance.
33. Socolavim and CAPOSOSMA in Artibonite, CPRCM in the Southeast
34. To receive the deposits, the Fund will have to be constituted in the form of a bank.
35. The latest funding received from the state of HTG 15 million dates from September 2008.
36. MARNDR (2010). Annex 8, Rural Credit, Formulation of Agricultural/Rural Financing Mechanisms in the Post-Earthquake Context in Haiti.
37. There are only 20 employees.
38. As of August 2018.
39. Created by a Decree of 26 March 1981, the FDI is a specialized institution of the BRH, but with operational and financial autonomy. The institution is headed by a Director General appointed by the Board of Directors of the BRH. The FDI's financial structure consists of a capital contribution of 19 percent, profits accumulated by the institution of 12 percent, and a debt of 69 percent.

40. Managed by the Central Policy Statement, the last amendment of which dates from 2005.

41. As of the end of July 2018, the FDI managed total assets of HTG 6 billion (US$87 million) with a credit portfolio of HTG 4.5 billion (US$).

42. Although the FDI is looking for more possibilities to intervene in the selection of files because of the repayment problems encountered.

43. Approximately HTG 80 million in 3 brackets, repayable over 3 years at a rate of 12 percent.

44. According to an interview, but the data was not communicated.

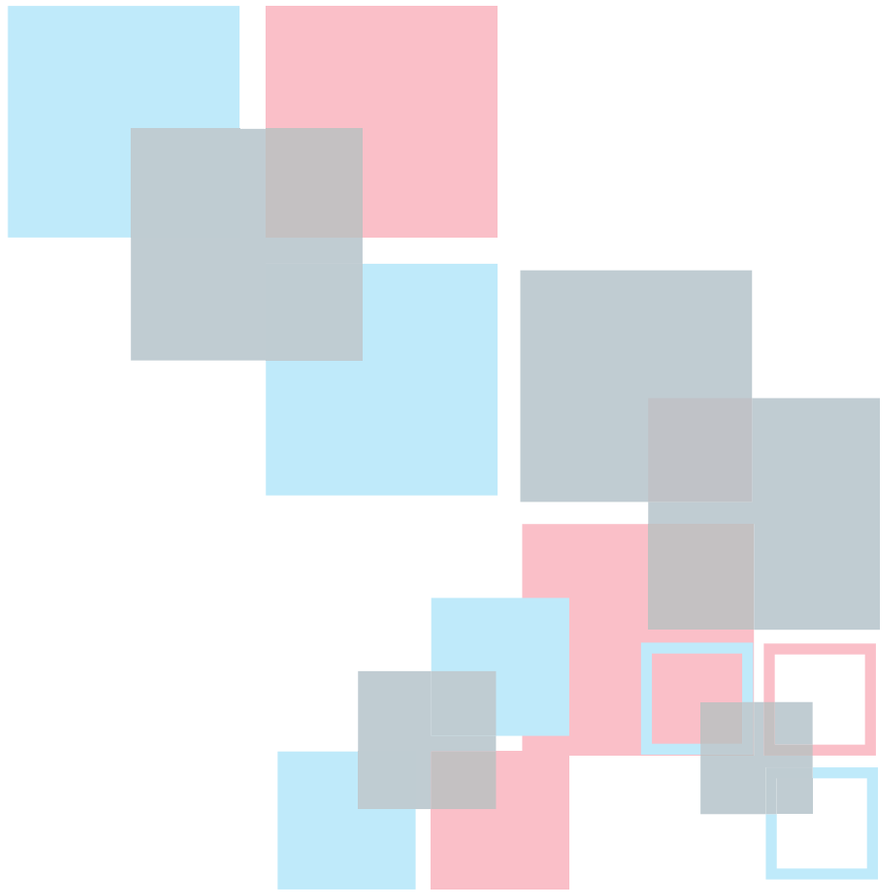
45. Swiss Agency for Development Cooperation (SDC) and the French Development Agency (AFD).

46. Matching grant combining grants and personal contributions.

47. See more detailed recommendations in "Financial Cooperatives in Haiti—A Diagnostic Review of the Sector and its Regulatory and Supervisory Framework" report, World Bank, December 2017.

48. At the international level, a recent World Bank study of 60 FGPs for SMEs shows that the average fees charged by the FGPs amount to 2.4 percent, with a minimum of 1 percent and a maximum of 3 percent. World Bank (2016).

49. The study shows that the average leverage rate is 3.3. In Africa, the average leverage amounted to 1.7.



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