

Report

VALUE CHAIN STUDY

Cacao, Cashews, Castor Oil, & Breadfruit

In

The Departments of the Grand Anse and South

Submitted

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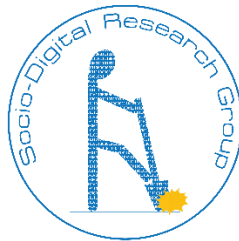
ILO



research

by

Socio-Dig



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“Insanity is doing the same thing over and over again,
but expecting different results.”

Rita Mae Brown, Novelist, 1983

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ACRONYMS

FAO	Food and Agricultural Organization
MARNDR	Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural
IDB	Inter-American Development Bank
ORE	Organization for the Rehabilitation of the Environment
FADA	Fédération des Associations Pour le Développement de les Anglais.
OGPAR	Òganizasyon pou Groupman Peyizan pou Avni Rosinyòl
TTF	Trees That Feed Foundation
MEDA	Mennonite Economic Development Associates
SECID	South East Consortium for International Development
FECCANO	Federation of Cocoa Cooperatives in the North
DAI	Development Alternatives Inc.
PRIMA	Programme de renforcement intégré du milieu des affaires en Haiti
PISA	Produits des Iles S.A
AFD	Agence Française de Développement
FOMIN	Multilateral Investment Fund
MINUSTAH	United Nations Stabilisation Mission in Haiti
NGO	Non-Governmental Organization
CACOMA	Coopérative Agricole
CAPETS	Coopérative Agricole Tèt Ansanm Peyiza Sica
CAUD	Coopérative Agricole Union Développement
COPCOD	Coopérative de Production et commercialisation du Cacao
COAH	Coopérative Agricole Anse d'Hainault
COCAM	Coopérative Cacaoyère de Moron
CACAODAM	Coopérative Cacaoyère de Dame Marie
CNSL	Cashew Nut Shell Liquid
ICCO	International Cacao Organization
IFAD	International Fund for Agricultural Development
CRS	Catholic Relief Services
FFEM	French Facility for Global Environment
USAID	United States Agency for International Development
WFP	World Food Program
FOPRODER	Projet de Formation Professionnelle Pour le Développement Rural
GAFSP	Global Agriculture & Food Security Program
PTTA	Projet de Transfert de Technologies aux Agriculteurs
BDI	Haiti Business Development and Investment Project
RESEPA I	Relaunching Agriculture: Strengthening Agriculture Public Services Project
PITAG	Agricultural and Agroforestry Technological Innovation Program
RESEPA II	Relaunching Agriculture: Strengthening Agriculture Public Services II Project
RPLP	Resilient Productive Landscapes Project
PLUS	Productive Land Use Systems
ASSET	Agriculturally Sustainable Systems & Environmental Transformation
HAP	Hillside Agricultural Program

MarChe	Market Chain Enhancement Project
DEED	Economic Development for a Sustainable Environment
HIFIVE	Haiti Integrated Finance for Value Chains and Enterprises
WINNER	Watershed Initiatives for Natural Environmental Resources
AVANSE	Appui a la Valorisation du potentiel Agricole du Nord, pour la Securite Economique et Environnementale
FHI 360	Unknown
CNFA	Cultivating New Frontiers in Agriculture
WCCU	World Council of Credit Unions
FTF	Feed the Future

EXECUTIVE SUMMARY

Introduction

This document presents research on four value chains in Haiti: cacao, cashews, breadfruit and castor bean oil (ricin). The research was conducted in the context of the ILO project FOPRODER (2015-2020), that works through cooperatives and associations in Haiti to provide professional training and promote resiliency of value chains.

Objectives of the Study and Importance of Exports

Because the FOPRODER works with cooperatives and because a main objective is to evaluate the practicality of promoting exports, we first review the 40-year history of donor investments in cooperatives and agricultural exports, particularly cacao. But we do so while keeping our eye on the fact that the ILO's priority is to increase income and household resiliency for small producers.

Failure to Increase Exports

Over the course of the past 30 to 40 years, cacao together with mangoes and coffee have consistently been Haiti's three biggest agricultural exports and the crops in which international donors have invested the most attention and money. Only vetiver has recently challenged their preeminence. Donors gave money to NGOs and development contractors who in turn worked through Haitian cooperatives and associations to facilitate training, aggregate produce and, in the case of cacao and coffee, break the monopsonies that agronomists and economists working in Haiti have long viewed as the greatest hinderance to increased production, increased exports and hence, increased income to small producers. There are important lessons to be learned in the history of this endeavor because after more than 30 years and several hundred million dollars in investments, the quantities of cacao, coffee and mangoes exported today are less than they were when the investments first began.

Failed Past Endeavors to Increase Exports and the Role of Cooperatives

The cooperatives upon which aid projects depend are seen by many stakeholders as the problem. Over and over in the past four decades one consultant and aid worker and one PhD student after another arrived at the same conclusion: cooperatives in Haiti are at best effective for only a short period of time. At worst they exist primarily to capture aid funds. In our own work we come to the same conclusions. In a 2016 to 2018 study of 29 cooperatives in the Department of Nippes, Socio-Dig concluded that these organizations were barely functional and entirely dependent on international donors. In a 2014 survey of leaders in all 12 cacao cooperatives in Haiti we found that the most consistent and outstanding feature of the responses was dishonesty, ineffectiveness, and apathy toward the mission of helping farmers with production.

Cacao as a Test Case for Using Cooperatives and the promotion of Exports

Among the four value chains studied during the course of the research, cacao is the one that international donors and hence implementing agencies and cooperatives have given the most attention. For this reason and the abundances of data and lessons learned, we focus on primarily on cacao and to a lesser extent coffee and mangoes in our effort to summarize lessons learned regarding exports and cooperatives and to help point the way forward for ILO investments in the target value chains.

Switching Strategies

The Cooperatives that work with cacao were mostly begun in the 1980s. Donors such as USAID and the EU supported them for the ensuing 40 years as part of a process of breaking the traditional Haitian oligopsony that controlled exports, something that was expected to help raise prices to producers, improve their living standards and incentivize production. It never worked. On the contrary, it has been a miserable failure. But, in the midst of donor and implementing agencies' narratives about having broken the oligopsony that controls exports of cacao and coffee and claims of improving living standards for the producers that supposedly came about as a result, something strange happened: the donors began re-routing aid to the export houses themselves. In the end they recreated the oligopsony. Today, the export houses receive money from donors, manage donor-funded tree nurseries, oversee tree-cleaning projects, planting campaigns, and training. The cooperatives aggregate cacao beans, but instead of selling them overseas they now sell much of it to the export houses. Ironically, the export houses and the chocolate makers have recently adopted the rhetoric of the cooperative movement, claiming to have broken the traditional 'exploitive system of speculators' and getting producers better prices. Mind you, these are the same exporters who created the system of speculators. All of this might be understandable if producers were in fact getting better prices for their cacao. But they are not. The proportion of the New York commodity price that producers are getting today is 36 percent, down from 41 percent in 2014, which is down from 50 percent in the late 1990s and early 2000s, which is down from the 86 percent cooperatives were getting members in 1986 when the USAID-funded cacao cooperative movement first began.

Bad Data

Behind the hypocrisy of the cooperative movement having come under the hegemony of the export houses is specious data that feeds the system justifying the past failures with narratives of success and inviting more donor funding with statistics that promise easily improved yields. The two most dramatic claims, both ubiquitous in proposals and reports, are that cacao exports fell from 20,000 tons per year in 1960 to 4,000 tons in recent years—suggesting that Haiti could make a 'come-back'-- and the claim that Dominican producers achieve yields as high as three

tons per hectare while Haitians get as little as .22 tons per hectare—suggesting that if the Dominican neighbors can do it, the Haitians can too. Both claims are false. In 1960 Haiti produced closer to 3,000 tons, less than produced today, and the Dominicans get the same yields Haitians get from their trees.

Similarly, USAID/AVANSE published claims of having facilitated an increase of cacao production by 700 percent in the North of Haiti. FAO data tells a story of cacao increasing from 4,000 tons per year in years ~2000 to 2006 to 15,000 tons per years 2014 to 2018. This is precisely the period of time when international donors plowed more than \$500 million into agricultural export value chains, among which cacao was a center piece. As with sky high 1960 exports and Dominican super-production, these claims are false. All credible evidence suggests the opposite, that cacao exports have fallen nearly in half over the past decade. Average annual cacao exports in the 20 years 1980 to 2000 were 20 percent higher than they have been in the 13 years since 2007.

There is only one logical explanation for the fallacious data and baseless claims: to legitimize the wasted millions and to justify new projects and in new investments in the same old failed strategies.

Deeper Reasons for Failure

Primacy of the Local Market

When we look closer at the products intended for export, there is every reason to believe that the projects were always doomed to fail. As a rule, the local market offers better prices than the export market. This is true in every single one of our four subject value chains—cacao, cashews, ricin/castor oil, and breadfruit. It is even true of mangoes and coffee. In every case the local market offers from 2.5 to 5 times the value of the export market.

Cacao on the local market sells for 400 percent of the best prices paid by cooperatives, including the premium rebate; Castor oil sells locally for 258 percent of the international commodity price; cashews in the shell sell locally for 360 percent of the international commodity price. Breadfruit is not an international commodity and despite one organization that makes spectacular claims of processing breadfruit into flour, there is no evidence the production of breadfruit flour is feasible and when we investigated the organization making the claims, the operation we visited was fake.

To get export crops from the small producers, politically allied families that dominate export chains—the oligopsony—have depended on manipulating access to credit, at times expropriating producer land, and of course, monopoly itself, something that in the past has meant outlawing any purchase or transport of export products by any individual not licensed by the State or authorized by the export houses.

In recent decades, a time during which State control has broken down, leaving the monopsonic families without their traditional protector, and a time when foreign aid organizations have also functioned as humanitarian watchdogs, export houses have depended more on leveraging credit and exploiting Haiti's horrific rural road system. For example, to get mangoes and cacao from producers at below local market prices, export houses must pick up the produce at the farmgate. Mango and cacao speculators also extend loans to producers against the anticipated harvests. With mangoes, these loans are made in September, six months before the mango harvest begins, a time when producers need money to pay for their children's books and tuition. But it is not just the export houses that have tried to capture produce for below market prices. Aid agencies themselves, in their zeal to please donors, have adopted similar strategies. In the end they have no choice because, as seen, agricultural produce, especially food crops, are simply more valuable in Haiti than if sold on the international market.

Value of Alternative Food Crops

If our objective continues to be to promote exports from Haiti, there is no reason to expect anything other than continued failure. Haiti is a food insecure country. While 40 years ago Haiti may have been largely self-sufficient in terms of food production, today 55 percent or more of all food is imported. Agricultural producers farm an average of 1.5 hectares of land while somehow surviving on the lowest average income in the Western hemisphere. These two simple facts make it difficult to understand why any IDB, World Bank or USAID economist would ever have taken seriously the notion that rural Haitian producers can, should, or would have recommended trying to compete with agro-industrial producers in other countries or, more to the point, that Haitian producers could not put any given square meter of fertile land in Haiti to more lucrative use producing local food crops for their own consumption or for the local market. And they can. While breadfruit is a highly desired food crop and exceptional among our four target chains, and cashews is a moderately useful, maintenance-free buffer against starvation, investment in short-term food crops is far more lucrative than investment in cacao or castor beans. Taking plantains vs. cacao as an example, the annual income per hectare of plantains is thirteen times that of cacao. Castor beans compared to food crops do not even make the charts. Rather castor beans are best thought of as a useful weed that usually grows on its own, provides some shade, the beans of which are sometimes processed into oil and used or sold by women as a hair ointment or as a household remedy for stomach aches and skin afflictions; but the bottom line is that it that castor bean trees usually gets ripped out of the ground to make way for peanuts or corn. Note that this is true even though, as seen above, the local price for castor oil is 258 percent the international price.

Influence of an Unpredictable Ecological, Economic, and Political Environment

The primacy of the local market and the illogic of producing crops for exports is even more dramatic when examined in the context of the unpredictable international and national markets

and unpredictable climactic events that condition the livelihood strategies of Haiti's small producers. Droughts, hurricanes, flash floods, international embargoes, wars, and regional conflict are the norm in Haiti. These calamities have been the bane of Haitian producers for more than 200 years and they have been as frequent and severe in the past 20 years as any time in history. Any Haitian producer who, taking advice from international economists or agronomists working in the interests of export houses, invested in monocropping for export would have perished long ago.

Prioritizing Subsistence

Haitian producers have adapted to the frequent ecological, economic, and political calamities described above in a way that is eminently logical. They minimize risk. First off, it must be understood that they have access to a vigorous and highly efficient internal rotating market system. And they use that system. Rural Haitian producers are market focused to the point of extreme monetization. But not in the way that internationally trained economist might expect. Most of them so loath to take risk that, whether it is beans, corn or cashew nuts, the typical Haitian peasant farmer dumps his or her harvest on the market and takes the cash. The farmer does this even though storing the harvest for a few months would mean profits of from 200 to 300 percent, i.e. market gluts at harvest time translates to low prices. But while the farmer might be focused on the market, or at least intensively use the market, he/she is emphatically subsistence-oriented, meaning the Haitian farmer produces, invests, and spends with the primary objective of survival. The farmer invests time and energy first and foremost in slow-yielding, highly drought and flood resistant crops that will assure survival when economic, political or environmental disaster strikes. Only then does he/she invest in short-term cash-crops such as black beans and corn.

With the exception of breadfruit, investing in trees are not even part of the strategy. Trees are an opportunistic and useful byproduct of owning land. But not something that a Haitian producer invests a significant amount of time, effort or money to cultivate. And the scarcer the land available to the producer, the fewer the trees he or she wants crowding out short cycle crops. An explanatory rule that can be derived from this emphasis on subsistence is what can be called near-0 risk and near-0 investment rules. The Haitian farmer invests first in the survival crops seen above. He or she then stubbornly resists making any more investments than absolutely necessary in fertilizers, pesticides, or seeds.ⁱ

Why Producers Say They Want Help with Exports: Importance of Development Dollars

The one apparent mystery is why producers say they want assistance to invest in export crops? The past 40 years of value-chain project proposals, evaluations, and impact assessments are replete with examples of Haitian farmers pleading for assistance to help them produce exports and narratives of gratefulness and life transformations because of export-oriented projects. This is the case even though those projects rarely have had any impact on increasing exports. As seen,

volumes for all three of the major Haitian export crops have declined over the past 40 years. Yet the thank-yous for past projects and the pleas for new ones continue. Even focus groups conducted during the course of this research were filled with farmers making eloquent pleas for assistance from the ILO.

The explanation for this seeming contradiction—pleas for something that is economically irrational and unwanted--has nothing to do with producing crops. What beneficiaries want are the jobs, cash, roads, and water-works that come with the projects. The impact of these projects cannot be gainsaid. NGO-implemented infrastructural works and the jobs that come with them are the single greatest source of cash and public works in rural Haiti. And they have been so since at least 1981, when international donors re-routed aid from the Haitian State to international NGOs.

Why this contradiction persists and is seldom understood by those collecting and publishing farmer narratives and pleas for help with exports has to do with the implementation process itself. Most consultants and NGO workers come to Haiti on short-term contracts. Consultants come for months while NGO employees are typically on three-year contracts. Most do not get to appreciate the impact of these programs in the context of long-term investments and opportunities in rural Haiti. But the rural producers we target for aid understand perfectly. They have been living it their entire lives. They have learned over the past 40 years that the consultants and aid practitioners come with specific agendas—in the present case, to increase exports--and are interested in specific narratives that support those agendas. As any intelligent being—indeed, as with the NGO and cooperative leaders themselves-- beneficiaries respond with requests and narratives that will best serve their interests. In short, the pleas for assistance with export crops and the convenient declarations of gratefulness and the stories of life-transformations are about getting jobs, money, and infrastructure from the projects.

PART1: HOW EXPORTS FAILED

1. Introduction

This document presents research on four value chains: cacao, cashews, breadfruit and castor bean oil (ricin). The intention of the study is to evaluate the practicality of developing these value chains for the export versus the local market. The study was commissioned by the ILO in the context of FOPRODERⁱⁱ (2015-2020), a project designed to reinforce governance and economic capacity of agricultural associations and cooperatives in Haiti's Department of the Grand Anse and the Department of the South. FOPRODER has two operational objectives, 1) support to value chain participants through professional training and 2) promote resiliency of the value chains. Both have the following overarching goal:

...permit the population, particularly those most vulnerable, to have equitable access to the means of subsistence, to productive resources, and to safe and decent work in order to reduce poverty in all its forms, in a favorable and inclusive socio-economic and cultural environment. [ILO 2019]ⁱⁱⁱ

In pursuit of the above objectives, the report provides a detailed description of the four value chains with the goal of identifying bottlenecks and limitations to exports for each of the products and making recommendations for project interventions that will increase production, export sales and hence income to stakeholders, especially to the small landholders who are the majority producers in all agricultural value chains in Haiti.^{iv} However, because the aim is to promote exports—or at least assess the feasibility of promoting exports--and because all export value chains in Haiti are and always have been subject to the same constraints at the level of State government and allied monopsonic corporate interests, we begin at the top of the chain, with a look at those crops that have been most attractive to donors as exports: cacao, coffee, and mangoes. Over the course of the past four decades, international donors have invested US \$654 million in projects that feature these three crops. And because cacao is also one of the four value chains that is the subject of this report, we use it as a first step to evaluate and summarize lessons learned from past projects and studies.

2. Cacao

Cacao is Haiti's 3rd most important export crop after Vetiver and Mangoes. An estimated 15,000 to 25,000 households cultivate cacao; 60 percent of these are located in the Departments of the North and Northeast, 40 percent are located in the Grand Anse, mostly in the communes of Dame Marie, Chambellan, Anse de d'Hainault and Les Irois (see for example FAO 2019; MARNDR/IDB 2006; USAID/DAI 2013).^v As with all four value chains, the producers are small landholders owning ~1.5 hectares of land and engaged in planting a multitude of annual crops and managing a variety of fruit-bearing trees.

Despite the importance of cacao, the trees persist in a state of extreme neglect. Those who own cacao trees do not clean the trees to allow for the appropriate amount of sunlight (50 to 75%), they do not cut them to the appropriate height (5 meters), they do not cull them when

they are beyond peak productive age (30 years), they do not select for high producing seedlings. Without the financial and technical support of NGOs or contractors hired by international donors, Haitian small producers rarely even plant new trees, they do not graft those they have planted or that have grown up on their own, and when they do plant trees they do not space them at the appropriate distance. The consequence of all this poor care are yields far less than they could be. ICCO (2020) estimates that with proper management of trees Haitian producers could reasonably expect the equivalent of 1.5 tons per hectare, four times the current estimated yield in Haiti of .35 tons per hectare (SECID 1999; MARNDR/IDB 2005; AFD 2016; Jean 2014; AVSF 2014).^{vi vii viii}

3. Past Projects

Neglect of Haiti's cacao trees has been addressed repeatedly over the course of the past 40 years. If we only consider projects that included US Government funding, since 1984 there have been at least 9 major USG and partner funded value-chain projects that included promoting cacao production for export as a significant component.^{ix} The total for those projects is at least \$351 million. And that is only part of it. Since 2003 the IDB and World Bank committed another \$302 million, including the current \$76 million PITAG project and \$21 million RPLP (see World Bank 2017; IDB 2016).

All these projects dealt not only with cacao; most included Haiti's two other premier tree-crop exports: mangoes and coffee. The projects have always worked through cooperatives and associations.¹ They have always provided training to the producers. It has always been the same training. They have always paid them to create tree nurseries, to plant saplings and to clean the mature trees. They have always lent cooperative members money, ostensibly to invest in cacao and to reduce financial pressure to sell the cacao beans immediately after harvest. They have always helped them get the produce to the export houses. They have always claimed to pay the cooperative members a premium rebate paid after the cacao beans were been sold overseas. And in the end, when the projects are over, there has always been the same outcome: no increase in exports. This has been going on for 40 years.

In fact, it may be worse than no results. There was less cacao exported in 2019 than when it all began back in the 1980s and early 1990s.^x And this is not simply the result of one bad year. Not even the result of a few bad years. Cacao exports declined from an average of 4,510 tons in the years 1980 to 2000 to an average of 4,276 tons during the past 15 years, precisely that period of time when the \$624 million of international donor investments should have been having an impact. And we see the same thing with the other two major export crops: coffee and mangoes. Coffee exports crashed, going from an annual average of 15,000 tons during the 1980s to less than 100 tons in recent years. Mangoes has fared better but the results are still negative. There were fewer mangoes exported in 2019 than 1990—specifically, 2.07 million boxes vs. 1.95 million.^{xixii}

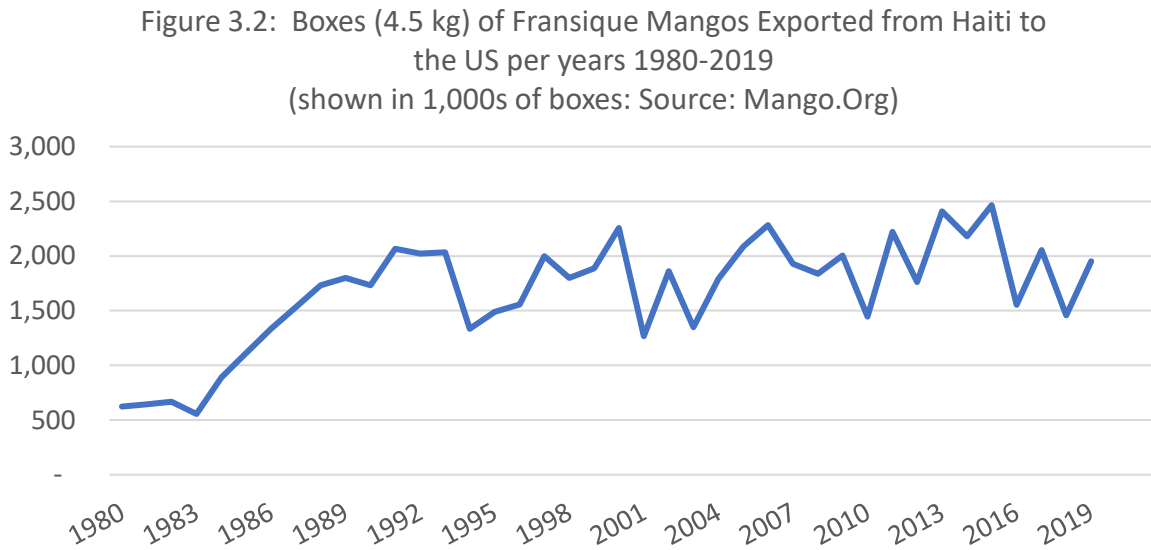
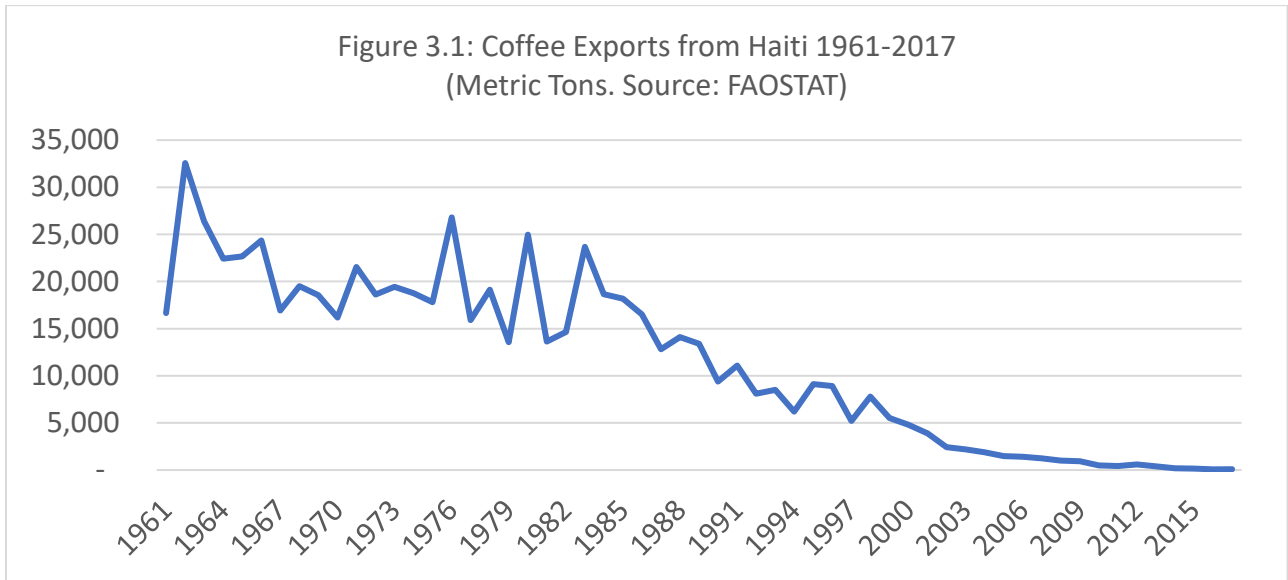
¹ The difference in Haiti between an “association” and a “cooperative” is that the latter exists principally as what in the US is known as a credit union, loaning money to members. Associations may or may not loan money. Their existence quantities of coffee, mangoes and is based primarily on unifying local farmers to encourage production and/or reach markets.

Table 3.1; USAID-Led Investments in Haiti Value Chains that Include Cacao Since 1989

Project Acronym	Project Name	Implementor	Years	Funding
PLUS	Productive Land Use Systems		1989 -2000	\$30,000,000
ASSET	Agriculturally Sustainable Systems & Environmental Transformation		1997-2002	Unknown
HAP	Hillside Agricultural Program	DAI	2000-2007	\$34,000,000
MarChe	Market Chain Enhancement Project	CNFA	2008-2010	\$15,000,000
DEED	Economic Development for a Sustainable Environment	DAI	2008-2012	\$21,000,000
HIFIVE	Haiti Integrated Finance for Value Chains and Enterprises	FHI 360; WCCU	2009-2014	\$37,000,000
WINNER	Watershed Initiatives for Natural Environmental Resources	Chemomics	2009-2014	\$127,000,000
AVANSE	Appui a la Valorisation du potentiel Agricole du Nord, pour la Securite Economique et Environnementale	DAI		\$88,000,000
TOTAL				\$352,000,000

Table 3.2; World Bank & IDB-Led Investments in Haiti Value Chains that Include Cacao Since 2003

Project Acronym	Project Name	Funder	Years	Funding
	Agricultural Intensification Project in Haiti	IDB	2003-2010	\$41,940,000
	Ennery-Quinte Agricultural Intensification Project		2005	\$27,000,000
PTTA	Projet de Transfert de Technologies aux Agriculteurs	IDB,GAFSP	2011-2016	\$40,000,000
BDI	Haiti Business Development and Investment Project	World Bank	2013-2018	\$20,000,000
RESEPAG I	Relaunching Agriculture: Strengthening Agriculture Public Services Project	World Bank	2012-2017	\$40,000,000
PITAG	Agricultural and Agroforestry Technological Innovation Program	IDB,GAFSP,IFAD	2018-2022	\$76,859,305
RESEPAG II	Relaunching Agriculture: Strengthening Agriculture Public Services II Project	World Bank	2017-2019	\$35,000,000
RPLP	Resilient Productive Landscapes Project	World Bank	2018-2024	\$21,210,000
TOTAL				\$302,009,305



PART II: WHY EXPORTS FAILED

In understanding why efforts to increase exports have failed there are two issues more important than any other:

- 1) the strategy that international donors use to increase production and exports
- 2) the strategy that the producers depend on to assure their survival

4. The International Donor Strategy

Up until 1981, the entire history of cacao and coffee had been one of oligopsony where as few as four to six politically-connected families controlled purchases. For 18 years, 1960 to 1978, the Haitian State went so far as to decree a legal monopoly over cacao purchases, a privilege that quickly devolved to then-dictator Francois Duvalier's daughter Marie-Denise, then to the next dictator's wife's family (the Bennetts) and then back to the original oligopsony families.^{xiii}

Survival of the oligopsony was threatened in 1981 when the international donors, led by the U.S. government, became fed up with State-sponsored corruption in Haiti and monopolies such as those that persisted with cacao and coffee, and decided to redirect aid from the government to the NGO sector (see Maguire 1981:14). At the same time, the US neoliberal development plan for Haiti included promotion of those crops Haiti had a comparative advantage to produce, i.e. crops that US farmers could not produce. Cacao along with coffee and mangoes were a perfect fit. And so for the next forty years International donors would fund and still fund the development of all three of Haiti's then major agricultural export value chains. But to really understand what happened since that time and why the enormous investments we saw above had no impact, it is useful to take a closer look at the subsequent history of cacao.

4.1: History of Cacao and the Cooperatives

Into this opportune moment in 1981—when the US government decided to re-route foreign aid from the government to NGOs to promote its neo-liberal economic development agenda--stepped Hershey's and MEDA (Mennonite Economic Development Associates). Hershey Foods, the major US maker of chocolate products, approached MEDA with a request to assist with procuring cacao from Haiti. A perfect fit with its neo-liberal strategy, USAID added funding to the project. MEDA organized the hitherto peasant producers into cooperatives and so began most of the cacao cooperatives that we find in the North of Haiti today. The original objectives were,

- 1) To enhance the production and marketing of cocoa
- 2) to contribute to the reforestation efforts in the area in order to control erosion
- 3) to provide technical assistance, training, and information to farmers
- 4) to contribute to the organizational development of the cooperative
- 5) to mobilize credit facilities/services for the use of cooperative members

Although if you read any one of the eight USAID-funded cacao projects that have been executed since 1990—after MEDA-- you would think that each had its own fresh new revolutionary strategy, all the goals and activities we find in those 30 years of projects and proposals were the exact same goals and activities laid out by MEDA that preceded them. Indeed, its always the same goals and activities and procedures for all the projects. It begins with the goal of tripling production from 250 to 750 kg/ha. There were and always are to be tree nurseries with high-producing stock, teams of cooperative members cleaning trees, financial resources mobilized to give the cooperatives money to purchase cacao and to give members credit so they did not have to dump their cacao on the export houses for low prices. The cacao was and always is to be aggregated and shipped to outside markets where it will fetch a premium price. The cacao beans were and in every project are to undergo five-day fermentation to make it suitable for high-end market. They was and always is the goal of developing cooperative management capacity, giving training scholarships for cooperative members to visit and learn from cacao producers in other countries. There were with MEDA and in almost every other project are learning trips to the Dominican Republic cooperatives, and Dominican experts coming to share their expertise. It was and always is all there, the exact same interventions that have been seen over and over again for the past 40 years. MEDA even wrote a manual of cacao production in Kreyol, something that would be duplicated by USAID-funded SECID in 1999.

Perhaps more important than anything there was and always is the *ristoun* (rebate). The key to breaking the export house monopoly was and always is the *ristoun*, rebates paid on cacao sold for a premium price in the US. The cooperatives pay producers the same price for cacao as the export houses, but several weeks after the cacao is sold overseas, cooperative members get a *ristoun*, an envelope with more money. In the case of MEDA, which had guaranteed purchase prices from Hershey's linked to the New York commodity price, the increase in farmer income was instantaneous. The competition forced Maison Novella to raise prices to an unprecedented and never since seen 83 percent of New York Commodity price. Akman (1986), who wrote a PhD dissertation about the cooperative membership, recounts Novella giving away tin roofs in an effort to keep producer loyalty. At its height MEDA had 11 cooperatives/associations with 4,000 members exporting 18 percent of all cacao coming out of Haiti. Since that time there has been a parade of chocolate makers guaranteeing prices to the different projects: German companies stepped in during the early 1990s, UK's Mars in the early 2000s, and since the earthquake a series of artisanal chocolate retailers related to the new trend in corporate responsibility and fair trade—i.e. environmentally sound production strategies and equitable prices to producers – notably Taza Chocolate, Ethiquable, Terra Etica and Carre Suisse.

Then as now, international donors and chocolate makers heralded the cooperatives as a type of salvation to impoverished cacao producers. But what we see in Haiti over the nearly 40 years of projects is a back and forth cycle of donors supporting cooperatives to make them self-sustaining producer-run enterprises and then watching the cooperatives collapse when the aid dollars were suspended. The first collapse came when international support was cut during the 1991-93 United Nations embargo. The US and Canadian markets closed and all but two of the 11 cooperatives working with MEDA ceased to function (IICA 1997:10). The UN occupied Haiti in

1994, donors reinvigorated the cooperatives with a new infusion of cash, and back to life the cooperatives came. In 1997, USAID created ServiCoop, a marketing cooperative whose primary purpose was to connect cacao producer cooperatives to overseas buyers. This time it was Mars, Hershey's UK rival chocolate maker, that guaranteed a market. Within a year ServiCoop was exporting 1,000 tons of cacao fetching cooperative members 50 percent of the New York commodity price. Success precipitated a stream of five and six-digit grants from donors. ServiCoop branched into coffee and mangoes, and then sorghum and corn. When the aid subsidies and loans were cut off 2002 ServiCoop and its union of cooperatives went the way of the MEDA project: they wilted and many disappeared altogether (SECID 1999; SECID 2001; MARNDR/IDB 2005).

Then came FECCANO (Federation of Cocoa Cooperatives in the North) another marketing cooperative that was ostensibly a union of six existing cooperatives. FECCANO was founded in year 2000. It became the new darling of USAID efforts in cacao. But FECCANO too was plagued by failures. By 2009, despite all the donor money, despite being in the midst of a €450,000 AVSF project that was directly supporting FECCANO and an investment of US \$1.56 million that DEED/USAID was channeling to FECCANO and its members, FECCANO somehow managed to be on "the verge of collapse." Two USAID economist-consultants from the prestigious Fletcher School wrote an academic article about FECCANO's woes, describing these unfortunate new developments that imperiled beneficiary livelihoods:

Over the years, these financial problems only grew more acute. In 2009, suffering from a lack of funds at harvest time, the cooperatives could not pay their members on time. Unable to wait for payment, farmers who had provided FECCANO cooperatives with 49 tons of fermented cocoa in 2008 reduced their sales to the cooperatives to just 25 tons in 2009. With the farmers returning to the *speculateurs*, FECCANO suddenly found itself unable to meet its export commitments. After years of promising success at the cooperatives, cocoa farmers braced for a return to the hardships of the past. [Mattern and Wilson 2013:4]

Overlooking the fact that "49 tons" of exported cacao beans was about 1/40th of what the cooperatives had been exporting under MEDA some 24 years earlier and about 1/60th of Haiti cacao exports for 2008—meaning that it was a stretch to say that FECCANO had even been successful at all—USAID stepped in and "rescued" FECCANO. The USAID-funded HIFIVE credit program gave FECCANO members \$210,089 to "promote local ownership" (ibid). Then came the 2010 earthquake, an unprecedented infusion of aid-dollars, attention from new artisanal chocolate manufacturers around the world as well as social enterprises and international cooperatives seeking solidarity with impoverished Haitian producers. FECCANO became a lightning rod for institutional contacts and international support. In 2014 came USAID's \$87 million AVANCE/DAI project which, along with achieving notoriety for being one of the most dysfunctional of USAID's now long history of failed agriculture projects, infused another five years of cash into FECCANO and the cooperatives.

The above were not events unique to the North of Haiti. The same processes were occurring in the South. Prior to the Earthquake USAID-funded MarChe project was already injecting funds into cacao through the oligopsony export house Maison Weiner. Following the Earthquake IDB and World Bank followed suit, supporting Maison Weiner as well as the new French social enterprise Kaleos which joined with the cooperative CAUD. Root Capital and Lutheran World Relief lent their expertise. CRS became an implementing agency for the IDB. Whether all this was for better or worse, it did not matter because in October of 2016, in the space of three hours, category-5 Hurricane Mathew wiped it all out, sending cacao production to a low not seen in recorded history while also providing a useful explanation for why 35 years of value chain development and 100s of millions of US development dollars had come to naught. It also gave justification to begin a whole new cycle of pleading for aid with the concomitant promises of skyrocketing production and a return to the good ole days.^{xiv}

Going back to the heyday of cacao aid in the years following the earthquake and before hurricane Matthew: to a casual observer it might have seemed the cooperative system supporting cacao export chain in Haiti was thriving. To this day, PowerPoint presentations intended to inform donors and press releases intended to inform the public spin narratives of grateful cacao producers and the stunning success of Haitian cacao on the international market. But a closer look suggests the opposite, that most cooperatives function as a façade that aid organizations have used to justify failed projects and win new funding.

4.2: Cooperatives^{xv xvi}

In 2014 Socio-Dig conducted a survey of all 12 Haitian cooperatives working in cacao. All responded to our questionnaire. Nine of the cooperatives were represented by their presidents, one a vice president, one a coordinator, and one a manager. On average, they claimed that they had 40 percent male membership and 60 percent female membership, figures that gender-sensitive donor agencies are happy to hear. But when we compared those claims to the cooperative member lists that the cooperatives themselves had given to us, it was almost the complete opposite: 56 percent of members were male and 43 percent were female.

Similarly, the 12 cooperatives reported a total of 8,327 members, but when we examined the lists the cooperatives had given us, there were only a total of 4,692 members, a little more than half what was claimed. Only four cooperatives gave figures that were close enough to consider as errors. In all other cases the differences between what the cooperative leadership claimed and what was on the list half. One cooperative claimed three times the membership that was on the lists.

Things did not improve when we tried to interview members. There were cases when we tracked respondents down only to be told they did not know they were members of a cooperative. One cooperative in the Grand Anse could not get more than half of the 300 members selected to be surveyed to come for the interview, suggesting they too—these people on the cooperatives membership lists--were probably not members. For 13 cases where we sought out cooperative members they turned out to be deceased.

Even the cooperatives dedication to cacao was in question: two had bought no cacao in the previous year, two others bought approximately one ton or less, meaning little more than US \$1,000 worth of cacao. Only two of the 12 cooperatives had a self-supported tree nursery.

Then there was credit to the members. The very definition of a cooperative in Haiti is that it provides credit to members, yet only four of the 12 cooperatives had given members loans in the previous year. In two cases more than half of those loans went to the 9 directors of the cooperative and in the only other two cases the credit program was 100 percent supported by USAID, meaning it was in fact a creation of yet another USAID project.

Then there was the actual work. For all the money poured into the cooperatives, only 12 percent of membership interviewed had received any material technical assistance in the year prior to the survey; only 27 percent had been visited by a technician, most of whom were in the North. Oddly, the Grand Anse cooperatives were the more neglected of the two regions--where in the previous year only 4 percent of cooperative members had received material technical assistance and only 12 percent had been visited by a technician—yet, they collected 61 percent of all the cacao that Haitian cooperatives collected in 2014 and earned 67 percent of the money that came in to cooperatives for cacao.

As for the premium rebate that cooperatives claim to give members (*ristoun*), only three cooperatives reported on how much those premiums were: CAUD reported 36 percent of the original sales price, CAFUPBO reported 28 percent and CAPUP reported 17 percent of original sale price. But the members themselves reported getting an average of only 8 percent of the original sales price (which is 5 percent of the New York commodity price); 25 percent of those in the Grand Anse who sold to the cooperative reported getting no rebate at all; fully 59 percent did not find it worth their trouble to even sell to cooperative in the first place, i.e. the cooperative in which they held membership.

There were times when cooperatives may have worked. There was the heyday of MEDA seen above when the cooperatives under Mennonite leadership exported 18 percent of all cacao coming out of Haiti. There was ServiCoop's first couple years climaxing in 2003 when the Ministry of Agriculture reported that cooperatives in Haiti exported 1,520 tons of cacao (MARNDR/IDB 2005). One correlate with this success is international donors and NGOs close stewardship and financial support of cooperatives that, in every case, collapsed as soon as the financial support was suspended. Moreover, recent history of the cacao cooperatives gives little reason to hope that anything has or will change. During the massive post-2010 earthquake aid infusion, the 2014 Socio-Dig survey found that the combined total for all 10 of the cooperatives in Haiti that bought cacao from its members that year was a paltry 228 tons, 1/8th of the 2003 figure for cooperatives purchases and only 1/20th of what the export houses sold that year. ^{xvii}

The fact is cooperatives never worked in Haiti. The one thing that has been more predictable than anything else is that without donor support they fail. The half dozen PhD's who have written exclusive treatises or dissertations about Haitian cooperatives over the past four decades have all come away with the same conclusions. As far back as 1986, White and Smucker (p. 4) described them as undermined by "Nepotism and unmitigated loyalty to extended family and individual factions" Kaufman (1996) p. 10) concluded they "frequently are formed in

response to community development programs and remain, to a significant extent, ‘groups of symbolic participation’” Jennie Smith (2001) described them as, “plagued with corruption, mismanagement and other problems.” In another Socio-Dig survey carried out for WFP in 2016, we applied an extensive survey instrument to 29 cooperative/associations in the Department of Nippes. Five ‘could not remember’ in what year their cooperative was founded. For the other 24, the average had been in existence for 19 years, and yet we concluded based on the responses to our questionnaire that,

Overall the associations are currently weak. They provide few services to their members; their accounting and administrative activities are absent in most cases; their infrastructural resources are next to nothing; and not a single organization had a tractor or a vehicle
(for specific data see Socio-Dig, 2017, V1. p13)

None of what is being said is new. As seen, we see the same shortcomings with cacao cooperatives that are found with other cooperatives throughout Haiti. In fact, what is most strange about all of this is exactly that: for 40 years of investment in cooperatives, researchers who looked seriously at what was going on all came away with the same dismal findings. Indeed, if we go all the way back to the beginning of the cacao cooperatives, to MEDA and the cooperatives in the North, Akman who studied the MEDA members and wrote a Ph.D. thesis about them in 1986 was already highlighting the same conclusions as common knowledge among aid practitioners,

Cooperatives in Grande Rivière du Nord have encountered many problems. Indeed, the history of cooperatives in Haiti as a whole is generally a story of failure. Thus, MEDA’s choice of this institution as a vehicle for development. was questionable.... (Akman 1986:29)

Cooperative	Claimed Membership						Membership on lists						Claims vs. Lists			
	Male		Female		Total		Male		Female		Total		Difference total membership		Difference Female membership	
	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Freq	Perc	Num.	Prop.	Num.	Prop.
COPCOD	87	44%	109	56%	196	100%	132	68%	63	32%	195	100%	(1)	99%	(46)	57%
CAUD	280	36%	513	67%	771	100%	312	68%	144	32%	456	100%	(315)	59%	(369)	48%
EPDAM	900	30%	2,100	70%	3,000	100%	423	60%	278	40%	701	100%	(2,299)	23%	(1,822)	57%
CATEPS	117	32%	253	68%	370	100%	250	68%	120	32%	370	100%	-	100%	(133)	47%
ARDI	116	23%	379	77%	495	100%	354	72%	138	28%	492	100%	(3)	99%	(241)	36%
TOTAL	1,500	31%	3,354	69%	4,832	100%	1,471	66%	743	34%	2,214	100%	(2,618)	46%	(2,611)	49%
CAFUPBO	239	37%	367	56%	650	100%	262	59%	179	41%	441	100%	(209)	68%	(188)	73%
CAPB	134	35%	246	65%	380	100%	155	57%	116	43%	271	100%	(109)	71%	(130)	66%
CAPUP	280	43%	370	57%	650	100%	209	42%	286	58%	495	100%	(155)	76%	(84)	102%
CAJBC	180	33%	370	67%	550	100%	272	69%	121	31%	393	100%	(157)	71%	(249)	46%
SOCOSPOC	250	63%	150	38%	400	100%	136	42%	186	58%	322	100%	(78)	81%	36	153%
UCAT	43	22%	153	78%	196	100%	107	54%	91	46%	198	100%	2	101%	(62)	59%
KOTAM	214	37%	365	63%	579	100%	265	74%	93	26%	358	100%	(221)	62%	(272)	41%
TOTAL	1,340	39%	2,021	59%	3,405	100%	1,406	57%	1,072	43%	2,478	100%	(927)	73%	(949)	73%
Grand Total	2,840	-	5,375	-	8,237	-	2,877	-	1,815	-	4,692	-	(3,545)	57%	(3,560)	-66%

4.3: Switching Strategies

Sometime in the early 2000s the same donors—notably USAID, IDB, World Bank and EU—who claimed the cooperatives had broken the oligopsony, began to encourage cooperatives and producer associations to sell directly to the traditional export houses. The export houses were increasingly brought online as managers of projects, such as tree nurseries and tree-cleaning campaigns. It is not clear exactly when this switch began but by 2009, when USAID was making long term plans for how to distribute resources for cacao and reforestation, one already finds comments in USAID reports such as,

In Limbé, the Novella Corporation (Zephir brothers) [*sic*] appears to have the cocoa value-chain well in hand with a solid understanding of the producers' extension and revenue requirements. [USAID 2009]

To be clear about what is being said, USAID was lauding Haiti's main export house for having firm control over the market. They were in fact, by that time, financially supporting the Novella export house as well as the other two monopsony export houses that the cooperative movement had been created to bypass. Since that time, USAID and other donors have increased support to export houses to manage the cooperatives and as purchasing agents. The USAID-funded and DAI-implemented \$87 million AVANSE project (2014-2019) gave grants directly to the export houses. AVANSE also brokered contracts between the export houses and the cooperatives/associations, as when they brought 16 farmers associations/cooperatives together with Novella, the largest of the three dominant cacao exporters in Haiti (founded in 1920). USAID also gave grants to PISA, an entity that performs as a cooperative but is in fact a wholly own subsidiary of Rebo, the second of the only two export houses in the North of Haiti (founded in the 1970s) (see USAID 2016).

The same process occurred in the Grand Anse. Since 2010, Maison Weiner, exporter of 90 percent of all cacao produced in the Grand Anse and that has dominated cacao in the region since 1898, has received support from l'Union Européenne (PRIMA), USAID (MarChe), and CRS/IDB (KABOS). Similar to their counterparts in the North, Maison Weiner increasingly works with and purchases directly from the cooperatives. Well-placed cooperative members appear to have responded by assuming the role of purchasers for the cooperative—in many cases they are current and former speculators themselves but now working from inside the cooperative—and excluding non-cooperative members or simply providing the same service that former speculators provided, i.e. aggregating small quantities of cacao from among the thousands of remote homesteads, transporting it to the cooperative base, and then turning it over to the export houses. In effect, there has been a *de facto* recreation of the oligopsony.

Whatever the forces that compelled USAID to unite cooperatives with export houses, and/or fund those private, corporate cooperatives that belong to the export houses—i.e. PISA--the obvious question is did it help? Is this new monopsonic configuration increasing production of cacao and exports? Is it getting producers better prices for their cacao beans?

The answer to both questions is “no.”

As seen in earlier sections, exports have declined. The decline cannot be attributed only to hurricane Matthew that hit in October 2016 because exports for the 1980 to 1994—the last three years being the international embargo against Haiti when cooperatives got no international

support at all--were an annual 5,423 tons, whereas exports for the more recent years 2007 to 2016--a heyday of international donor support to the cacao cooperatives--was 20 percent less at an annual 4,482 tons.

As for claims of increasing income to producers, the proportion of the New York commodity price that producers are getting today is 36 percent, down from 41 percent in 2014, which is down from 50 percent in the late 1990s, which is down from the 86 percent cooperatives were getting in 1986 when they were under the guidance of MEDA and had a contract with Hershey's. In effect, AVANSE was getting cooperative members less than half the proportion of the NY commodity price that MEDA had gotten them thirty years earlier^{xviii xix xx}



April 2010. Called a USAID "Success Story" picture of USAID/DEED "Alliance", on a visit to the Dominican Republic fully funded by USAID. Included in the picture are representatives from USAID, DEED, NOVELLA, FECANNO, and Maison Weiner. The press release refers to Export House Novella as DEED's main partner. DEED began the process of unifying the cooperatives under the guidance of the exporters.



July 2015 picture from DAI's Facebook page, "Daniel Zephyr, director of Novella, Haiti's largest cacao exporter, signs new direct trade agreements with 16 farmers associations in Grison Garde.

4.4: Exaggeration and Coverup

There is something that every aid practitioner genuinely interested in helping to increase income to small Haitian producers must understand in order to see clearly what has happened with projects that target increased agricultural exports and to avoid the failures of the past. The organizations that have funded and overseen these investments have not candidly reported what happened. Despite the failure of cooperatives themselves, the failure to increase exports, and the turn-around from trying to bypass the monopsony to directly supporting its resurrection, those individuals and organizations involved in implementing projects have left a false written

legacy of success, thereby encouraging continued implementation of past strategies and the same failures.

In 2013, summarizing USAID work in an academically refereed journal article that reads much like the USAID press releases, the two USAID Fletcher School consultants/graduate students seen earlier wrote,

Until recently, local markets in the North were essentially controlled by *les speculateurs*, who dictated prices to farmers and furnished exporters with a steady supply of cocoa. However, over the past two decades, agricultural cooperatives have emerged to compete with *les speculateurs* for the purchase of locally grown cocoa. Responding to the needs of their members and communities, the cooperatives assumed the role of middleman by cutting out *les speculateurs* and selling cocoa directly to exporters.

Mattern and Wilson (2013:4)

Mind you these “middlemen”, the *speculateurs*, where the creation of the export houses themselves. Moreover, what Mattern and Wilson are telling is that the cooperatives are selling, not to overseas buyers who give a premium price, but to the export houses the cooperatives were created to bypass. USAID/MarChe was in fact already financially supporting the export houses to manage and purchase from the cooperatives. Since then, their support for the process has increased. In 2016, USAID/AVANSE brought 16 farmers associations/cooperatives together with the export house Novella. They subsequently issued a press release entitled,

HAITI’S CACAO FARMERS ELIMINATE MIDDLEMEN, DOUBLE INCOMES”
[USAID 2016]

The press lease went on to explain,

Dieula Rosembert, a grandmother of five, has been selling cacao for as long as she can remember. But the middlemen in Haiti who bought her cacao paid her so little “you could not even buy a loaf of bread with the money!” she exclaimed.

“We did not really know the true price of a pound of cacao—they took my cacao for a pittance,” said Anne-Marie Severe [a Haitian cacao producer]... She adds that the speculating brokers “would not consider the quality of the cacao given to them. It’s one price for everyone.” This has all changed with the help of USAID’s AVANSE... The project has organized smallholder cacao farmers into seller groups that then sell directly to Novella, Haiti’s biggest cacao exporter.
[USAID/DAI 2016]

These stories of heartwarming success come from the same producers who were the target of seven USAID funded cacao projects that preceded AVANSE, going all the way back to MEDA in the 1980s. So despite the obvious failings, consultants, contractors and NGOs getting donor money to support cooperatives kept up the rhetoric that cooperatives were breaking the traditional cacao oligopsony and aiding producers to get better prices. They did and still do this despite the fact that they actually switched strategies and helped to recreate the oligopsony and

despite the fact that, as seen, with the return to the monopsony, producers have been getting proportionately less and less of the international price that the cacao beans are sold for.

Photo from the USAID/DAI press release with caption: “Dieula Rosembert has banded together with other cacao farmers to sell directly to Haiti’s biggest cacao exporter.”
Credit: *Joanna Stavropoulos, USAID/AVANSE*



4.5: Promising Future Based on False Data and Misleading Claims

The misleading narratives of the past are compounded by misleading, indeed false promises of what the future holds if donors would only continue to repeat past mistakes. Every development proposal that targets cacao—or any other agricultural export product in Haiti -- begins with the same two claims:

- 1) fantastic potential for increased production and
- 2) fantastic claims of the increased income that will accrue to the impoverished beneficiaries--if the project is funded.

The claims are probably baseless in all cases, but with cacao they are certainly baseless. For example, it is commonly claimed in proposals and calls for greater investment in the cacao value chain that cacao production has fallen from 20,000 tons in 1960 to ~4,000 tons in 2017 (see FAO 2019:2, CBC 2017; AFD 2016; Cooperation Suisse, 2015). Project proposals and reports also frequently claim the average yield in Haiti is 260 kg/ha vs. 880 kg/ha in the Dominican Republic. FAO (2019) cites an even more dramatic 300 kg/ha in Haiti vs. 2,000 to 3,000 kg/ha in the Dominican Republic. (For similar claims by the World Bank see FOMIN 2013 and for the Caribbean Export Bank see CBC 2017).

Neither of the claims are true.

Haiti never produced 20,000 tons/ha of cacao. All reports from the 1950s and 1960s—all of them—put annual cacao production in Haiti at about 3,000 tons, less than it is today and exports even lower. If one set of FAO data is to be believed the trend goes from a little more than

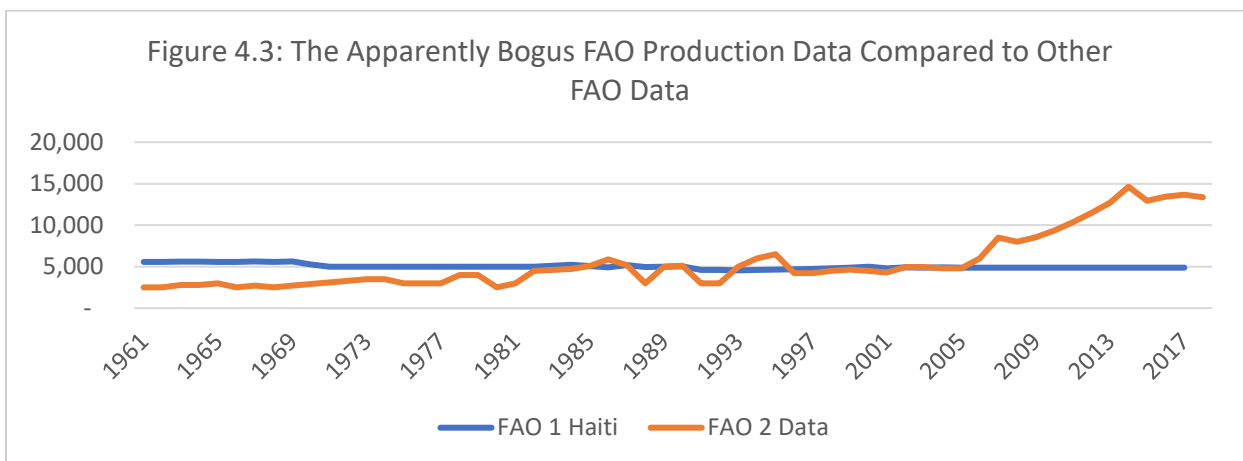
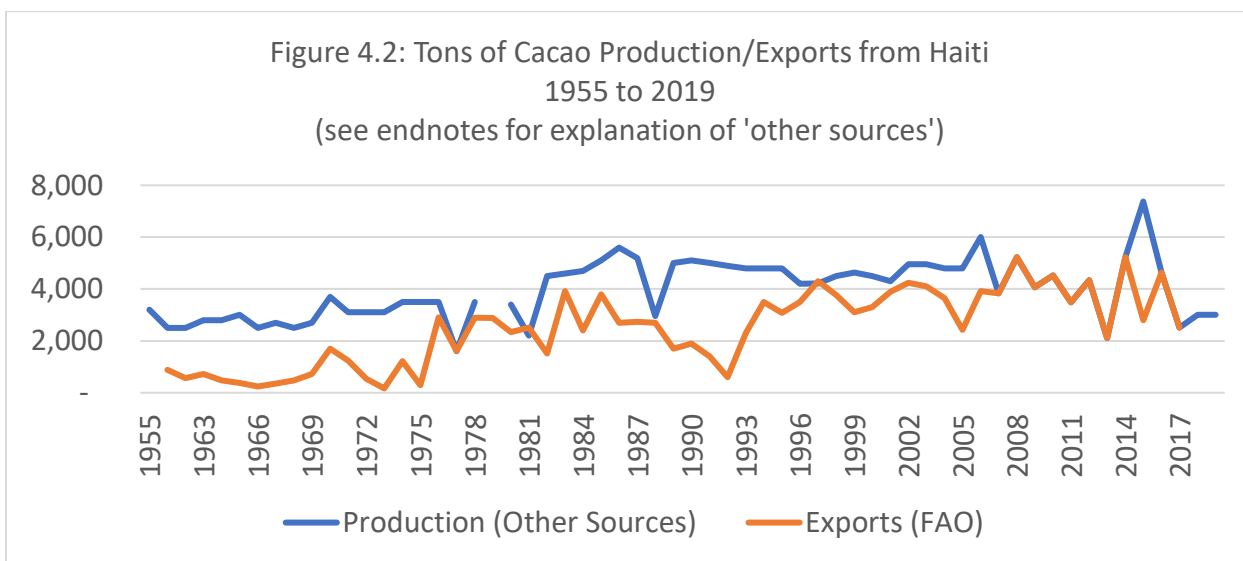
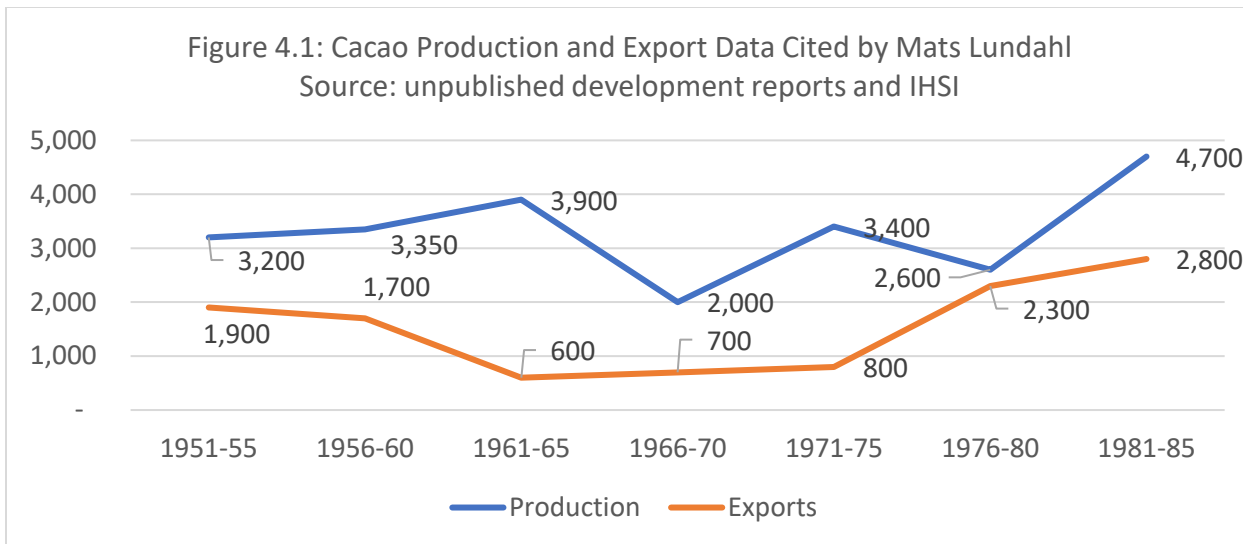
3,000 tons in 1960 to a peak of 14,633 in 2017 and remaining above 13,000 tons since then. But this is wrong as well. In 2016 hurricane Mathew devastated trees in the South, reducing production in Haiti by almost 50 percent. According to Maison Weiner, which exports 95 percent of cacao that comes out of the Grand Anse, production in the Southern Peninsula dropped from 1,500 tons in 2016 to 500 tons in 2017. FAO notwithstanding, total cacao exports coming out of Haiti in 2017 were no more than 3,000 tons. The Haitian Ministry of Commerce reported the even lower figure of 2,512 tons exported for 2017. Adding even more confusion to the issue, FAO contradicts its own data, publishing other data on the very same website showing that production never exceeded 5,231 tons in a single year (see Figures 4.1 to 4.4).

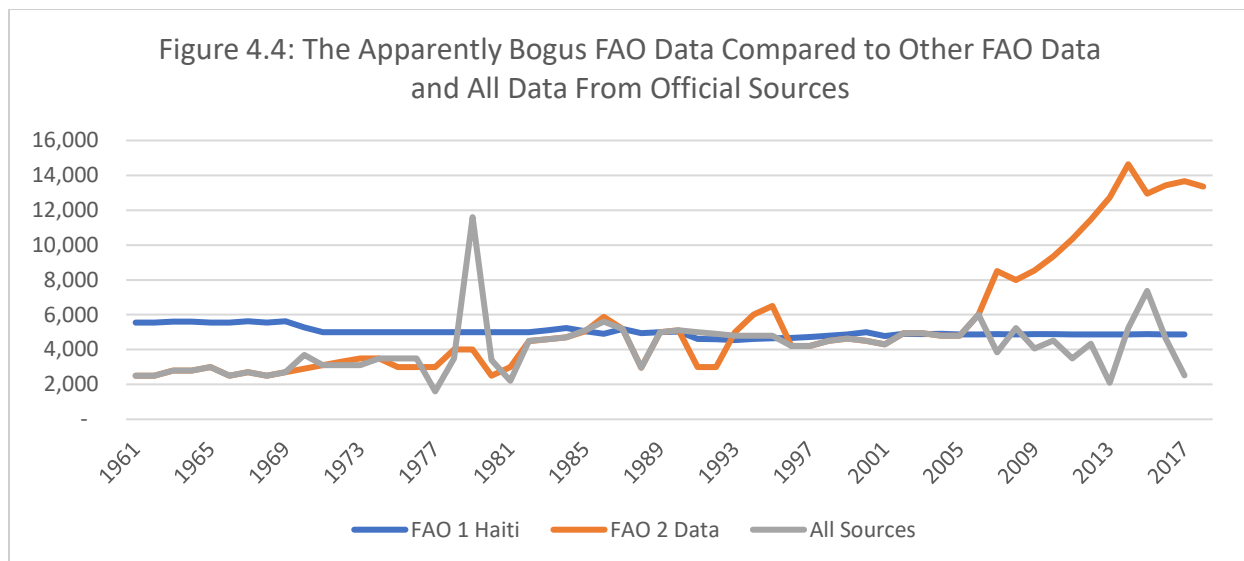
Similarly, claims of low Haitian production vs. extraordinarily high yields in the Dominican Republic have no basis in fact. According to the (ICCO 2020), per hectare cacao production for the Dominican Republic is ~360 kg/ha. If we use recent data from USAID's AVANSE project, Haiti produces ~ 320 to 430 kg/ha, putting it on par with the Dominican Republic (Molnar et. al. 2015).

In fact, these more recent figures from USAID and early assessments by MEDA would suggest that cacao yields in Haiti are and always have been relatively high compared to other producing countries. MEDA noted that average yields in the north of Haiti in the 1970s were 200 to 250 kg/ha. As seen, USAID estimated 320 to 430 kg/ha in the North for 2015. Chesnel Jean (2014) puts production in the South at 226 kg/ha. Global average production is ~ 500 kg/ha (ICCO 2020). But with only 240 heavily intercropped trees per hectare in Haiti vs. 1,000 kg/ha in countries where the cacao is monocropped at densities of 1,100 trees/ha, cacao production in Haiti is arguably the same or higher than these other countries (see Akman 1986: 27).

There is only one logical explanation for the bad data and misleading interpretations: winning contracts to implement aid projects. Baseless claims of fantastic potential are obviously intended to justify new donor investments: 'Haiti used to export 9 times the cacao it exports today', begs the conclusion that we can once again reach exports of 20,000 tons. That 'the Dominicans on the same island produce 4 to 10 times what the Haitians produce,' begs the conclusion that if the Dominicans who are located on the same island can do it, the Haitians can do it too. After the projects are closed come fantastic and contrived narratives of success like those seen above with AVANSE beneficiaries data that, judging by all other sources, including the Haitian government and the export houses themselves, are false but that conveniently suggest that 100s of millions of dollars that the USG, IDB and World Bank invested since 2004 were not wasted. This is the only way one can reconcile claims from USAID/DAI such as that about the 2013-2019 AVANSE project and that it,

Facilitated a **700 percent** [*sic*] rise in export sales of cacao. AVANSE's efforts to intensify production and to assist growers and exporters to expand into premium markets for fermented, organic, and fair-trade cacao made a significant contribution to this positive trend. (See [DAI website](#))





We have seen that contrary to the claims from international donor agencies, US contractors and multinational NGOs, that the cooperative system is not working as intended and probably never did. At least some of the consultants and staff who work for the implementing organizations know it did not work for at the same time they made claims of cooperatives successfully reaching overseas buyers they actually turned back the clock, returning the cacao value chain to a state of monopsony, the only difference being that it is now veiled in claims of aiding the impoverished producer access overseas markets. As if to eliminate any prospects for future effective interventions in the cacao or other agricultural value chains, these same agencies have deliberately covered-up the impact of previous projects. False claims of fantastic success, bogus data, and heartwarming beneficiary narratives assure that in fact no lessons are learned at all and that we continue to repeat the same mistakes. And then, in a deliberate attempt to keep the process going, to keep the aid dollars coming, the same individuals and organizations dangle the same never-fulfilled and baseless projections of future success. That said, it is useful to go back and look at why the promotion of exports was always doomed and similar efforts are today more likely to failure than ever before.

5. The Haitian Small Producer Strategy

Despite all the hopes, dreams, claims, promises, and prevarication promulgated in the name of export crops and donor dollars, agricultural exports from Haiti were doomed from the beginning and make no economic sense today. The reasons for this are four,

- 1) The isolation of Haitian small producers vis a vis the world market,
- 2) The ecological, economic, and political calamities that combine with that isolation to make the export market totally unpredictable,
- 3) The robusticity of the local market and
- 4) The food scarcity that results from the mentioned isolation, and ecological, economic, and political calamities giving way to,

- a. high prices on the local market and
- b. an emphasis among producers on production for subsistence

5.1: Constraints of Being a Small Producer in Haiti ^{xxi}

Rural Haitian cultivators live on one third of an island surrounded on three sides by water patrolled by US coast guard cutters that sink and burn Haitian boats when they apprehend them. On the remaining side live the Dominicans, Haiti's militarized neighbor who collectively view the Haitians as savages useful primarily for arduous low-wage labor, who frequently rob them as they go back and forth across the border, who periodically round them up in brutal repatriation drives and send them back to Haiti without allowing them to collect their pay or belongings, and who, in 1937, within the memory of some elders alive today, massacred with blades and in the space of three days 25,000 ethnic Haitians living throughout the Dominican Republic. For rural Haitian producers without the education and money to leave Haiti with a legal visa, the main alternative to staying in rural Haiti and farming is to leave their families behind and try their luck in the slums of Haiti's cities, which brings us to those who do stay in the rural areas, those that ILO intends to be the primary beneficiaries of its investments in agricultural value chains. ^{xxii}

Haiti itself is an unpredictable and harsh economy and natural environment in which to be a farmer. smack in the middle of the Western hemisphere's hurricane belt, Haitian producers can expect to be hit by one tropical storm or hurricane every 3.7 years. In some areas a severe drought strikes 1 in every 8 years. Adding to their woes are riots, protests, military conflict, and international embargoes that have been a near constant feature of life since their ancestors began the struggle for freedom 229 years ago.

It is this milieu of constantly impending calamity that we have to understand the Haitian producer because despite all the money and all the organizations and all the international aid, the only reason most rural Haitians are alive today is because of their own efforts. And at the heart of those efforts is conformance to a maxim so consistent throughout the country that we can elevate it to a rule: near 0 risk and near 0 investment. This maxim gives way to four direct corollaries that have assured that Haitians survive and equally assured the failure of hundreds of past development projects and will determine the impact of the ILO interventions as well. These are:

- a) Reduce risk by maximizing the variety of trees and crops the household depends on, with special attention to those that are
- b) as resilient as possible to drought, floods and blight and/or responsive to rain and that
- c) yield slowly for a maximum period of time—providing steady flow of food and income for the household-- while, in conformance with minimum investment,
- d) requiring minimum inputs and maintenance

For at least 90 percent of rural Haitians, the above points are inviolate. Before investing in anything else—cash crops, trees, animals, education, or in many instances, even life-saving medical care -- the Haitian small farmer first invests his or her time and labor in a large variety of resilient crops with priority going to those that mature quickly and yield for long periods, preferably year-round. In areas where there is irrigation or high rainfall, the main crops are yams, plantains and taro, all crops that mature within one year, yield constantly over a period of several years, can be harvested green or left in the ground and harvested piecemeal any time needed. In dry areas they prioritize hardy, drought resistant crops such as manioc, which can also be left in the ground and harvested any time needed; pigeon peas, which yield slowly all year round; sugarcane, which has a tap root as long as 27 feet below the surface and can also be harvested as needed; sweet potatoes, which with as little as 4 inches of rainfall and in less than 6 weeks produces 12 tons of tubers per acre; or peanuts, a crop that can be grown in sand. The most important tree crops are all zero maintenance, with long periods of yielding fruit, such as oranges, mangoes, avocados, coconut, and arguably more important than any other tree crop, breadfruit, which yields something for all but a few months per year. Cashews are also an ideal tree crops, as they will grow in almost in soil, they are astonishingly pest resistant, drought resistant and produce high protein and high fat nuts that are nearly indestructible and can be stored for years with virtually no preparation other than being dried in the sun. Although much less popular, even cacao fits into this strategy, being essentially zero maintenance, while producing something all year round and with three peak seasons. It even propagates itself because seedlings readily sprout from those pods that rats open. Indeed, the reason producers do not simply tear cacao trees out of the ground is probably because it does fit into the strategy of 0-risk and 0-investment, while providing a significant source of scarce fat when needed. ^{xxiii xxiv xxv}

Figure 5.1: Crops planted in the last 12 months
(N=1,147: Source Socio-Dig 2014)

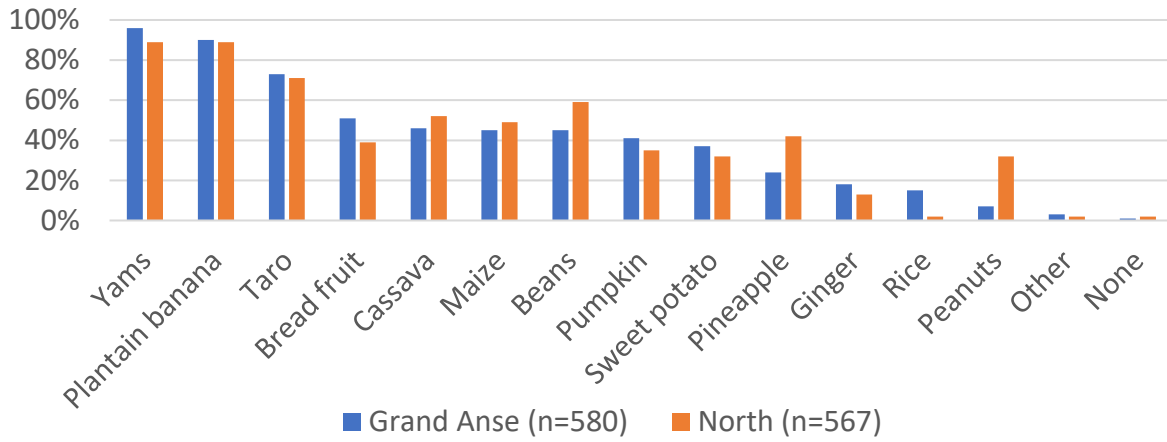


Figure 5.3: The 15 Most Common Fruit Trees in the Grand Anse
(Source: Socio-Dig/HEKS-EPER 2018)

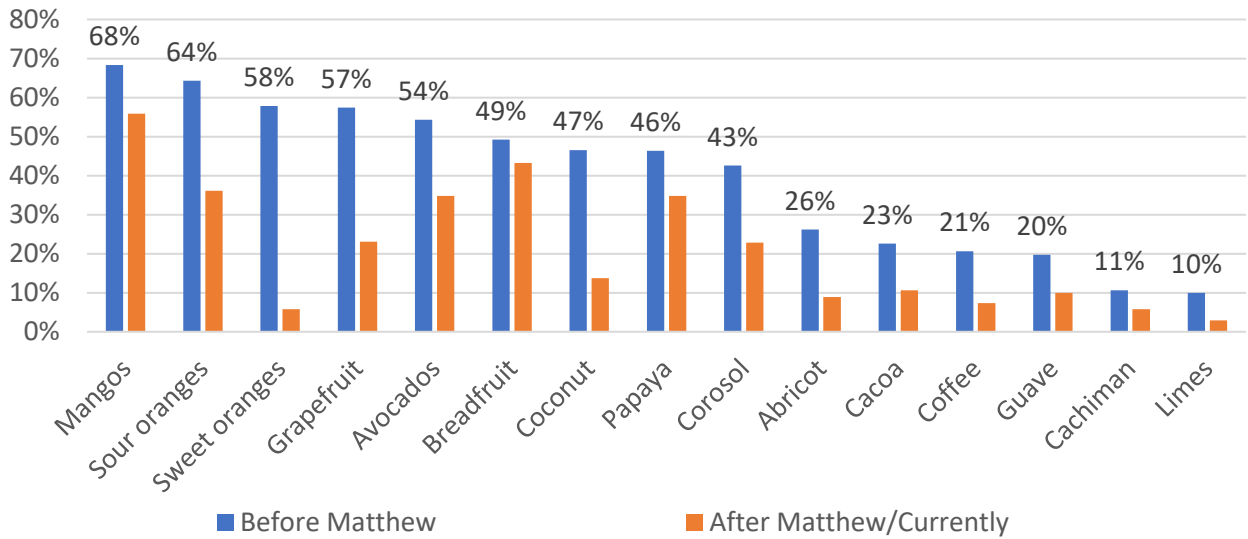


Table 5.2: Lowland Harvest Cycles in the Southern Peninsula, Haiti (H = harvest)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Beans		H	H	H								
Cow peas	H	H	H	H	H	H	H					
Lima beans	H	H	H	H	H	H	H					
Pigeon peas	H	H	H	H	H	H	H					
Corn		H	H	H								
Peanuts			H	H						H		
Millet		H	H									
Manioc	H	H	H	H	H	H	H	H	H	H	H	H
Sweet potato	H	H	H	H	H	H	H	H	H	H	H	H
Plantains	H	H	H	H	H	H	H	H	H	H	H	H
Squash	H	H	H	H	H	H					H	H
Sugarcane	H	H	H	H	H	H	H	H	H	H	H	H
Yam	H	H	H	H	H	H	H	H	H	H	H	H

Figure 5.4: Seasonal Fruit and Nut Production Southern Peninsula, Haiti

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avocado							H	H	H	H	H	
Mango				H	H	H	H	H	H			
Bread nuts	H	H	H			H	H	H	H	H	H	H
Bread fruit	H	H	H				H	H	H	H		
Kenep							H	H	H	H		
Oranges (sweet)	H	H	H	H				H	H	H	H	H
Gratefruit	H	H	H	H	H	H	H	H	H	H	H	H
Limes	H	H			H	H	H	H	H	H	H	H
Oranges (sour)	H	H	H	H	H	H	H	H	H	H	H	H
Coconut	H	H	H	H	H	H	H	H	H	H	H	H
Papaya	H	H	H	H	H	H	H	H	H	H	H	H
Corosol	H				H	H	H				H	H
Grenadia			H	H	H	H	H	H	H	H	H	H

5.2: The Local Market

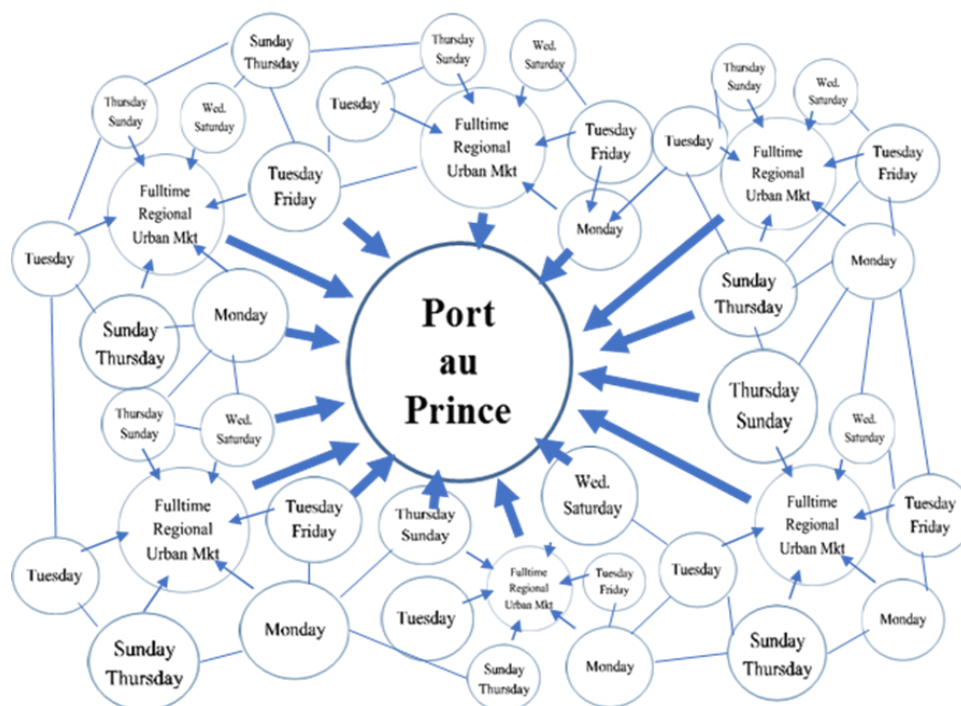
None of the preceding is to say that rural Haitians are subsistence producers. They are not. They practice a type of extreme monetization, dumping harvests on the market when storing them might result in income three times what they get at the time of harvest, and often daily selling small quantities of produce such as pigeon peas or mangoes. They sell off their front porch or by the roadside, but most importantly they sell in Haiti's vigorous internal rotating market system, the main system for regional redistribution of produce. The system is such that in any given area of rural Haiti households are within walking distance of at least two markets per week. The internal rotating market system in Haiti is made possible by the many multi-altitudinal micro-climates found in Haiti, i.e. not only are rural Haitians planting crops that yield over long periods of time, but different harvest seasons occur in close proximity to one another making local food stuffs available in the market year round (See Figure 5.5).

While market orientation may seem anathema to subsistence production and planting first and foremost for survival, it is not. The market system too fits neatly into the near 0-risk, 0-investment strategy described above. Haitians use the market as a type of storage mechanism. For those crops that are harvested over short period of time, only in the rarest of cases—such as nearly indestructible cashews—do they risk storage. Instead they reduce risk by dumping the harvests in the market. It is a radical but extremely common example of the near-0 risk maxim because other producers are doing the same thing at the same time—dumping their produce on the market—glutting the market and depressing prices. This means the small producer forgoes profits of from 200 to 300 percent that would otherwise come with storing the harvest and selling when the produce in question is scarce.

This practice of not storing produce consistently befuddles development practitioners who are promoting increased attention to cash tree crops such as cacao and cashews. The agronomist and economist can easily calculate the doubling and tripling of income that will come from proper harvesting and storage. But for the producers it is a safer bet to dump the produce, eliminating any risk of losing the crop to insects, rot, rodents, or thieves. They then use the cash to make investments in buying and selling other produce thereby extending the life of the money. All the while they are rolling the money over, they use the profits and eventually the capital to meet subsistence expenses as well as expenses associated with education, medical treatments, and shaman/sorcery services.

In summary, we can say that rural Haitians may not be classic subsistence producers who eat what they produce, but they are emphatically subsistence-oriented market producers and the reason is because of the limitations imposed by the unpredictable environmental, economic and political calamity seen above. They must prioritize. But even this does not mean that Haitian producers are not interested in making money. And that brings us to another major point in understanding why projects targeting exports entirely failed: demand for food stuffs and critical products on the local market is so high in Haiti that the export market cannot compete.

Figure 5.5: Internal Rotating Market



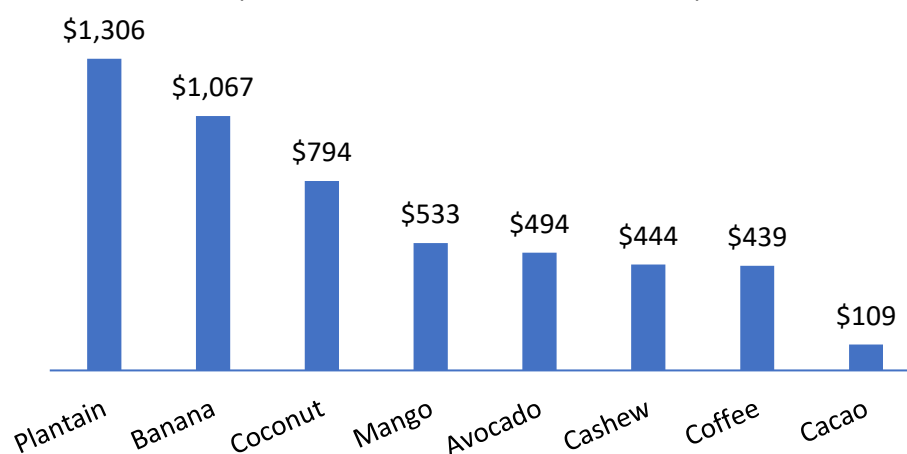
5.3: The Value of the Local Market vs. Export Market

From the perspective of the small producers, one painfully obvious reason they have not devoted more energy to the export crops that donors have so lavishly financed is the robusticity of the local market. In food insecure Haiti, where some 55 percent of all comestibles are imported (see Chancy 2017), the local economy offers a better market for both mangoes and coffee (see endnotes for details). As seen in the section on Value Chain below, the same is true for all the target value chains. Cashews in the shell sell at the Haitian farmgate for 360 percent of the international wholesale price. There is a robust local market for castor oil, such that semi-refined castor oil sells wholesale for 258 percent of the wholesale international commodity price. Cacao is the one product that *appears* to be something for which producers might prefer the export market. Haitians only use cacao to make hot chocolate drink, a popular morning street-food but one that currently absorbs less than 10 percent of domestic production. Yet even with cacao, speculators and cooperatives are reselling cacao beans locally for three times the profit margin they can get from the export market chain. For those who process the cacao beans into chocolate and wholesale it locally the markup over the cost of the beans is 400 percent. The export houses recognize the growing importance of the local market and have begun to compete with the informal processors by selling their own branded chocolate. The remaining chain is breadfruit, a critical Haitian food staple more popular locally than any of the other chains. But we cannot evaluate it because there is no export market for breadfruit, not from any country. Difficulties in

processing, storage, shipment and low market demand mean there is no basis by which to evaluate prospective income.^{xxvi}

Not only do the subject value chains have high value on the local market, the opportunity costs make the export market a poor choice. Thirty-one years ago, right about the beginning of the massive donor investments in cacao seen earlier, Bourdet and Lundahl (1989) showed that using optimal spacing methods, tree for tree, other crops such as plantains yield as much as 13 times the income producers in Haiti can expect from cacao (see Figure 5.6). Cacao was at the very bottom of the list for returns on tree-crop investments. The closest competitor was coffee, which yields four times the income the producer can expect from cacao. Considering these figures, why would entities such as USAID, the World Bank and USAID—all staffed with economists and operating on neo-liberal economic logic—expect Haitian producers to be interested in producing cacao? Indeed, a better question is why don't the producers rip the cacao trees out of the ground and plant something else?^{xxvii}

Figure 5.6: Alternative Tree Produce (US\$/ha)
(Source: Bourdet and Lundahl, 1989)



5.4: Why Producers Say they are Interested in Exports

There still remains one major question and that is why, as in the case of cacao, producers tell us they want to plant more of the trees when they in fact do not nor is there a logical reason for them to invest their land, time and money in cacao? And why do they appear so grateful for the projects such as cacao when there is little evidence the projects have any enduring impact, indeed, they are getting less and less for returns for the harvest? We saw earlier USAID/AVANSE beneficiary Dieula Rosembert, grandmother of five, gratefully telling USAID consultants that before the project came along, “you could not even buy a loaf of bread with the money!” And Anne-Marie Severe complaining that, “We did not really know the true price of a pound of cacao—they took my cacao for a pittance.” These are women who lived through the same USAID-financed cooperative campaign process with MEDA during the 1980s—when they were getting

almost three times the value for their cacao-- again with ServiCoop in the 1990s—when they were getting about twice the value for their cacao--and yet again with DEED and FECCANO during the early 2000s. Why the lavish appreciation for a project that is getting them a lower proportion of the international price than any of the 7 projects that came before it? We see similar obsequious, ingratiating-type speech in focus groups. Whether it was cacao, breadfruit, cashews or castor beans, almost all focus group participants responded to questions about their most important agricultural produce by affirming that what they most valued was precisely whichever of the four value chains was the topic of discussion.

Sometimes respondents said this after complaining about the crop, after long and eloquent explanations about why it is not in their interest to cultivate it and even after suggesting they might in fact tear it out of the ground when they find it—something especially true of castor beans. In every focus group there were also impassioned speeches about how they would like the ILO to come help with whatever subject value chain we were talking about, to come save them ‘because they lack the resources and strength.’ Typical were comments such as the following.

... we ask for a chance, a guarantee for us. If they could give us some cacao trees to plant.... Give us some aid. Because we have have no strength. If they could give us 1,000 cacao trees... (Male Focus Group Participant, 100 years old, Dam Mari, Dezomo)

These pleas can be understood in only one way: the jobs and investment in infrastructure the projects bring. It is emphatically not income from exports that planters are thinking about when they make the pleas for aid. What they want are jobs, cash, roads and water. With donor-sponsored nurseries, tree-trimming and tree-planting campaigns come jobs. All the tree projects cited above, all those conducted in rural Haiti, all the coffee, cacao, and mango projects involve paying producers to establish nurseries, to clear land and plant trees, and to clean existing trees. They also often involve road building, much in demand to help extract charcoal from the remote areas, and water projects, an obvious life-giving necessity. The impact of these projects cannot be gainsaid. NGO infrastructural works and the jobs that come with them dwarf those of the State and local municipalities. Whereas most Departments and Communes cannot meet their payrolls—typically paying months and even years in arrears--NGOs and UN organizations are responsible for at least 90 percent of all infrastructural works in Haiti and as much or more non-State employment.

We have in fact already seen validation for the argument that the primary interest producers have in projects is the jobs and infrastructural investments that that come with them. We saw this validation with the fact that the projects have failed to increase exports. Despite all the investments that international donors have made in the past 20 years, there is no more produce coming out of the rural areas per producer than there was when it all began. Indeed, there is considerably less. But we can get even more vivid image of the extent to which producers see tree projects in terms of money doled out by simply asking them, something we did in the 2014 Socio-Dig surveys in the Grand Anse and the North. The most common response to, ‘what

do you hope to get from the project?' was "credit", in other words "money" (see Table 5.1). Overall, 29 percent of respondents said so. The next most common response was "whatever development aid I can get", 17 percent of respondents chose this response. The third response was simply "better prices", 12 percent of respondents said this. All other responses, such as "help in the garden", "tools", and "technical assistance" were given by 10 percent or less of respondents. Only 2 percent mentioned saplings and only 2 percent mentioned cleaning trees, the two donor priorities of all tree projects. Only 7 percent said "greater cacao production." Perhaps ironically, even the cooperative leadership said these things, with credit by far the cooperative leadership favorite form of aid at 21 percent (see Table 5.2). The exception was that a distant second for the cooperative leadership was increased cacao production at 14 percent--something probably related to a keener awareness to the fact that the cooperative's existence hinges on donor support and that donors believe expect it to be dedicated to increasing production and exports. It should be mentioned that when we did restitution (presented results to small groups of respondents), and asked respondents what was so attractive about credit that they would have to pay back (typically at 3 percent per month), respondents confided that when projects are completed and close out, they do not have to repay the credit.

Table 5.1: Respondents Greatest Hope from the Project by Region and Sex										
Response	Region				Sex				TOTAL	
	Grand Anse		Nord		Female		Male			
Credit	149	23%	236	37%	178	38%	207	25%	385	29%
Whatever, aid, development	141	22%	86	14%	78	17%	149	18%	227	17%
Better prices	115	18%	49	8%	61	13%	103	13%	164	12%
Greater cacao production	65	10%	25	4%	25	5%	65	8%	90	7%
Garden Technical aid	17	3%	73	12%	22	5%	63	8%	85	6%
Seeds	39	6%	39	6%	26	6%	52	6%	78	6%
Technical aid with cacao	43	7%	27	4%	19	4%	56	7%	75	6%
Good cooperative	11	2%	42	7%	17	4%	36	4%	53	4%
Clean trees	23	4%	6	1%	10	2%	19	2%	29	2%
Saplings	6	1%	18	3%	11	2%	13	2%	24	2%
Work	15	2%	6	1%	7	2%	14	2%	21	2%
Processing	12	2%	8	1%	6	1%	14	2%	20	2%
Tools	12	2%	4	1%	3	1%	13	2%	16	1%
Other fruit	0	0%	14	2%	3	1%	11	1%	14	1%
Other	28	4%	19	3%	16	3%	31	4%	47	4%
TOTAL	648	100%	633	100%	466	100%	815	100%	1,328	100%

Table 5.2: Cooperatives Leadership Greatest Hope from the Project												
Response	CAUD		COPCOD		EPDAM		KOTAM		SOCOSPOC		UCAT	
Credit	31	19%	12	19%	48	24%	29	35%	26	33%	12	21%
Whatever, aid, development	20	13%	14	22%	37	19%	14	17%	21	27%	4	7%
Better prices	46	29%	10	16%	44	22%	2	2%	5	6%	6	11%
Greater cacao production	14	9%	9	14%	16	8%	2	2%	3	4%	8	14%
Garden Technical aid	5	3%	0	0%	3	2%	14	17%	4	5%	6	11%
Seeds	6	4%	2	3%	12	6%	7	9%	3	4%	1	2%
Technical aid with cacao	13	8%	3	5%	9	5%	2	2%	2	3%	3	5%
Good cooperative	2	1%	2	3%	3	2%	4	5%	4	5%	6	11%
Clean trees	5	3%	6	10%	4	2%	0	0%	0	0%	1	2%
Saplings	1	1%	1	2%	0	0%	1	1%	2	3%	4	7%
Work	4	3%	0	0%	9	5%	2	2%	1	1%	0	0%
Processing	5	3%	0	0%	5	3%	0	0%	1	1%	3	5%
Tools	3	2%	2	3%	2	1%	0	0%	0	0%	1	2%
Other fruit	0	0%	0	0%	0	0%	3	4%	3	4%	1	2%
Other	5	3%	2	3%	5	3%	2	2%	4	5%	1	2%
TOTAL	160	100%	63	100%	197	100%	82	100%	79	100%	57	100%

Table 5.2 continue - Greatest Hope from the Project by Cooperative														
Response	ARDI		CAFUPBO		CAJBC		CAPB		CAPUP		CATEPS		CAUD	
Credit	21	15%	58	48%	39	35%	31	42%	41	32%	37	32%	31	19%
Whatever, aid, development	42	30%	15	12%	12	11%	8	11%	12	9%	28	24%	20	13%
Better prices	11	8%	7	6%	9	8%	2	3%	18	14%	4	3%	46	29%
Greater cacao production	13	9%	4	3%	0	0%	3	4%	5	4%	13	11%	14	9%
Garden Technical aid	4	3%	13	11%	18	16%	7	10%	11	9%	0	0%	5	3%
Seeds	9	6%	5	4%	6	5%	7	10%	10	8%	10	9%	6	4%
Technical aid with cacao	16	11%	6	5%	6	5%	3	4%	5	4%	7	6%	13	8%
Good cooperative	3	2%	3	2%	6	5%	8	11%	11	9%	1	1%	2	1%
Clean trees	5	4%	1	1%	1	1%	1	1%	2	2%	3	3%	5	3%
Saplings	1	1%	1	1%	6	5%	0	0%	4	3%	3	3%	1	1%
Work	1	1%	1	1%	1	1%	1	1%	0	0%	1	1%	4	3%
Processing	2	1%	0	0%	3	3%	0	0%	1	1%	0	0%	5	3%
Tools	2	1%	0	0%	0	0%	2	3%	1	1%	3	3%	3	2%
Other fruit	0	0%	3	2%	2	2%	0	0%	2	2%	0	0%	0	0%
Other	11	8%	5	4%	1	1%	0	0%	6	5%	5	4%	5	3%
TOTAL	141	100%	122	100%	110	100%	73	100%	129	100%	115	100%	160	100%

PART III: THE VALUE CHAINS

6. VALUE CHAINS

Research Methodology

The research involved an exhaustive review of available development reports and academic articles covering the value chains cacao, cashews, breadfruit and castor beans; and 16 focus groups, four for each value chain, with a total of exactly 100 planters and traders. Most planters who participated in focus groups were males and most traders were female, a reflection of prevailing gender roles in Haiti.^{xxviii} Key Informant interviews were conducted live, by telephone and email with 36 different aggregators, processors and marketeers of products on the four value chains.

We drew on what was learned from the literature, in focus groups and from key informants to answer the information in Table 6.1 below for each value chain. The summaries are in order of the four phases of the value chains: production, harvesting, processing, and sales.

<ul style="list-style-type: none"> • Demographics • History • Interventions/aid • Types of product/ Uses • Byproducts • Products on same chain • Co-products • Roles • Other Stakeholders • Production <ul style="list-style-type: none"> ○ Planting ○ Intercropping ○ Seasons ○ Inputs/Maintenance ○ Culling 	<ul style="list-style-type: none"> • Use of wood • Harvest • Output • Processing • Output • Materials/Technologies • Storage • Measures • Package and Transport • Sale • Market Venue • Marketing organization • Consumers • Work organization 	<ul style="list-style-type: none"> • Sexual/Age Division of Labor • Tenure • Afflictions • Most significant relationships • Financial underwriters • Source of financing • Opportunities
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Overview of All Value Chains, Context, and Commonalities

To appreciate and better understand the specifics of each value chain, it is useful to first understand the commonalities among producers and the context of production and marketing in which the chains are embedded.

Profile of Producer Households Land Ownership

More than 85 percent of all agricultural activity in the two target Departments is accomplished by producer households whose average 5.2 members typically farm more than zero but less than to three *carreau* of land (1 *carreau* = 1.29 hectare). Figures 6.2 and 6.3 give examples of household ownership and land distribution in one of the two targeted Departments, the Grand Anse. Typical throughout Haiti, no household collectively owns more than 20 *carreau* and only 9 percent were landless. These figures are almost exactly what the Haitian government reported in 2001 as a national average for rural farms (ECVH 2001), and very similar to figures from Moral (1961) for the 1950s, suggesting that, despite declining availability of land that has come about with increasing population (the rural population has doubled since that time, going from about 2.8 million in 1950 to 5.5 million today), the primary determinant of farm size in rural Haiti is linked to an optimal quantity of land that a single household can farm.^{xxix xxx}

Means of Acquisition	Average		Standard Deviation	
	Kawo/Carreaux	Hectare	Kawo/Carreaux	Hectare
Respondent: inherited land	0.66	0.85	1.42	1.83
Spouse: inherited land	0.31	0.40	0.93	1.20
Purchased land	0.41	0.53	0.66	0.85
TOTAL	1.38	1.78	2.11	2.72

Amount of Land	Inherited land		Purchased land	TOTAL	Cumulative Total
	Respondent	Spouse			
0 Kawo	43%	78%	38%	9%	9%
0 < Kawo = 0.5	28%	8%	40%	36%	45%
0.5 < Kawo = 1.0	14%	6%	13%	15%	60%
1.0 < Kawo = 1.5	4%	1%	2%	12%	72%
1.5 < Kawo = 2.0	5%	3%	4%	2%	74%
2.0 < Kawo = 2.5	1%	1%	1%	5%	79%
2.5 < Kawo = 3.0	2%	1%	2%	2%	81%
3.0 < Kawo = 10.0	3%	2%	0%	13%	94%
10.0 < Kawo = 15.0	0%	0%	0%	1%	95%
15.0 < Kawo = 17.6.0	0%	0%	0%	1%	96%

Prevailing Agricultural Production Strategy

The primary source of revenue and sustenance for most households in the departments of the Grand Anse and South come from annual and perennial crops farmed intensively or in swidden-type cycles. Portions of the property are cleared (see Figures 5.1 and 5.2 on page ##). Woody saplings are usually converted into charcoal that is sold for shipment to provincial cities of

Jeremie, Les Cayes, and most importantly, Port-au-Prince. As described in first part of the report, the emphasis is on near 0-risk, near 0-investments. A secondary but also important part of the strategy involves dependency on different trees, such as those that are subject of the present research: cacao, cashews, breadfruit and castor beans (for a more complete list and frequency of ownership of trees in the area see Figures 5.3 and 5.4 in earlier Section 5). Below is an overview of the strategies for cultivating these trees and the market forces that condition sales of the produce.

Planting

As with all trees in Haiti, the overwhelming strategy producers employ closely follows the near 0-investment 0-risk strategy described in the first section of this report. Tree nurseries, grafting, trimming or pruning of trees are more appropriately considered NGO interventions rather than producer cultivation strategies. Producers typically propagate trees in an opportunistic fashion, meaning if a sapling sprouts on its own they might care for the tree where it has begun growing or move it to a more propitious location, but it is rare that a cultivator will deliberately set out to propagate trees. Focus group participants discussed making compost to start saplings and/or to nourish adult trees but, with the sole exception of breadfruit, there is no reason to believe this was anything more than participants repeating what they had learned in NGO sponsored seminars and a type of hope appeal for aid and employment in a new project. Similar to cultivators throughout Haiti, the people we talked to use neither pesticide nor fertilizer on their trees. Participants did discuss using pesticides in castor beans, but this was related to peanuts, a crop popular in the same area and intercropped with castor beans. Even in these cases, the use of pesticide was associated with an NGO/MARNDR project and discussion disintegrated into a near argument regarding how the system of spraying peanuts had broken down, suggesting that even with lucrative short-cycle crops such as peanuts applying pesticide is not easily part of the regional crop production strategy.

Inputs and Maintenance

Regarding the pruning of cacao, cashew and breadfruit trees, farmers are aware of the importance of cleaning and trimming the trees, they reported it is important to do so, and they identified agronomists who encourage the practice. But again, this seemed linked to NGO training campaigns where the aid organization worked through local cooperatives to organize labor parties and it was evident that they seldom deliberately clean and prune trees to allow greater sunlight and dispatch dead branches. Focus group participants commonly complained about the costs of cleaning trees versus poor returns from cacao and implored ILO to give them assistance. These pleas for assistance are, as discussed in the previous section, related to hope for access to credit, jobs, and local infrastructural works that comes with projects. In summary, the principal input in all crops and trees is weeding.

Material Technology

People in the studied communities use only machetes, hoes, and simple picking poles. NGOs have introduced picking poles with a sack attached to them, something that would be especially useful for breadfruit because when bruised the fruit rots quickly (see Harvesting). Notwithstanding, the only specialized cultivation or harvesting tool is a pole with a hook in it used primarily for breadfruit and to a lesser extent cacao.

Work Organizations and Sexual and Age Division of Labor

Types of Labor Organization

There are three prevailing categories of labor organization found in the target region, 1) unremunerated family labor, including children is by far the dominant source of labor. In this case activities are organized around the household, workers being members of the household or of extended households. Activities are generally orchestrated by the oldest female in the household.

The other two work procurement strategies are extra-household and address labor crunches, such as occurs during planting seasons. These are, 2) pay per day in the form of the *jounen*, where one or more people—usually several to a dozen or more—work for six hours and 3) pay for performance in the form of the *eskwad* (squad), a group of cultivators—usually but not always male—who form a reciprocal labor group to work on one another's field but who also may sell days of work to other producers outside the squad.

Pay for Work

There is a rule of thumb regarding the cost of labor in target area, indeed in all of rural Haiti. A *jounen* (~6 hours of work accomplished in the morning), hovers around US \$2 per day per person with a meal provided. Without a meal the cost is ~\$2.50. In the most remote areas, the cost may drop to half that price, but for most of Haiti the US \$2.00 to \$2.50 is highly consistent. This calculation in US dollars considers inflation. When the value of Haitian Gourde declines with respect to the US Dollar—and hence the cost of imports goods and staples increases—the price in local currency for a *jounen* can be expected to increase within several months. For example, in 2012, when the value of the Haitian Gourde was ~US \$1 = 45 HTG (vs. US \$1 = 90 HTG at the time of the present research), a *jounen* without meal value 150 HTG and with meal 100 HTG. In the case of assistance with harvesting and processing, workers are often paid in kind, i.e. part of the harvest. The values of the in-kind payment parallel those of the *jounen*.

Prices for Produce

The same rule seen above for increasing local prices for labor in relation to the value of the Haitian Gourde vis a vis the US dollar applies to local produce. When the value of the Haitian Gourde declines, the local price can be expected to increase with a lag of several weeks to months.

Gender and Ownership of Trees

As men tend to be thought of as the owners of gardens and tending gardens is thought of primarily as a male undertaking, men are more often considered the owners of these trees. Nevertheless, both men and women own all kinds of trees. Access to trees on family land is shared by all heirs, male and female, until the land is formally divided. Moreover, although men more than women trade in land—buying and selling agricultural gardens-- women who enjoy success in marketing activities can and do purchase land and this land often has fruit trees on them meaning that minority of women in their own right become owners of fruit trees in the target value chains. Also an important nuance of ownership is that even in the case of land and trees referred to as belonging to the man of the house, they are *de facto* propriety of the household and hence fall under the ultimate control of women, if not the actual trees and land, then at least the harvested fruits. This point is elaborated below.

Gender and Ownership of the Harvest

As with crops, men usually own the garden but a woman—wife, mother, sister, or daughter—will own the harvest. Yet another way of saying this is that gardens are usually planted or owned by men but in the name of a woman and/or household. And to be even more precise, gardens are almost always planted in the name of a household with children, all members of the household but especially the man—if present-- participates in making the garden productive, but the *de facto* head of the household and the person responsible for marketing the produce created through efforts of household members is almost without exception the senior woman of the household and/or wife of the man who owns the trees.

Only in the case where a value chain has been formalized through association with a marketing cooperative or a purchasing house—as in the case of cacao—does this role of men in market change and males become more involved in sales. The shift that occurs with the formalization of a market chain was to some extent apparent during the research with respect to castor beans and their recent increase in importance because of bulk purchases for export, i.e. men became involved in marketing castor oil, typically a product that falls completely in the domain of women. Men may also play a greater leadership role in harvesting and marketing when there is an exceptionally large harvest, as with proprietors who own 20 or more cashew trees.

Gender and Processing

Processing--making chocolate from cacao, *tonmtonm* from breadfruit, tablets from cashews or oil from castor beans--is almost exclusively a female task. One exception is pounding of the product with a pestle. If a man is present, the task will fall to him.

Women are far more likely to engage in typically male tasks than vice versa. Thus, in the absence of a wife, men will rely on their mother, a sister or daughter to accomplish harvesting, marketing and processing tasks. But in the absence of a husband, women themselves will assume the typically male roles, such as caring for animals and gardens.

Rentals

The rule in the target area, indeed in rural Haiti, is that trees may be rented or the entire harvest of a tree or group of trees sold. However, this rule is modified by the characteristics associated with the harvest cycle and market for specific fruits. Cacao trees are never rented out and seldom is the harvest sold because, a) there is no single period when all the pods are harvested, rather trees yield all year round with three extended peak periods, and b) there is a ready market for unprocessed beans, such that itinerate traders (*zonbi*) will come to the homestead to purchase and transport the beans, obviating any incentive to sell entire trees--such as lack of labor for processing or lack of access to transport. Cashew trees are sometimes rented for 1 to 3 years and the harvest may be sold. Regarding breadfruit trees, producers commonly sell the 3-month seasonal harvest or rent the tree for 1 to as long as 5 years. The price may vary from 1,000 HTG to 5,000 HTG depending on the size of the tree and potential yield.

Market Venue

There are two principal market channels in Haiti by which food reaches consumers: the **informal internal rotating marketing** system discussed earlier in Section Local Market and that evolved dealing principally in local produce, and the **formal import economy** that evolved in association with imported goods. These two principal market distribution channels supply a third channel, the increasingly important food preparation specialists. The prevailing formal market store in the country is the neighborhood *boutik*—provision stores—that sell mostly imported industrial goods such as beans, flour, rice, toilet paper soft drinks, branded rum, packages candies and cookies, canned milk, school supplies, smoked herring, and cigarettes.² This system also links to the half dozen top-end super-markets in Port-au-Prince (there are none elsewhere in the country), an equal or few number of specialty shops and elite bakeries (again, almost entirely in Port-au-Prince), and perhaps another 30 mid-level markets (all in Port-au-Prince), and ~200 markets that are on par with developed country convenience stores (about half of which are scattered throughout Haiti's Provincial Cities).

The other chain is the internal rotating market system that supplies 85 percent of all goods sold in Haiti, whether local or imported (Schwartz 2019a), but again, it is the main venue for local produce. Occasionally one might see plantains or coconuts for sale in *boutik*, but the overwhelming pattern is for produce to be sold in the open markets of the internal rotating system or on the roadside. Other important venues for both imported and local products include out of homes, and at bus stations in major cities and crossroads throughout the country.

² For a detailed review of these provision stores and their stock vs. the informal internal market system see Socio-Dig's 2013 inventory survey (Schwartz 2019a).

Package and Transport

Transport for all produce and throughout Haiti is the same. In the most remote and rugged areas travel by foot and carrying loads on the head are the prevalent strategies followed by pack animal. In areas accessible by motorbike, people increasingly hire motorcycle taxis. In the areas where there are roads, transport is accomplished on bus and *taptap* (small, 4-wheel drive pickup trucks). Thus, the overall pattern is to walk produce out of the more remote areas, either arriving at the markets on foot or at some point on the trek hiring the assistance of a motorbike to reach the market. Most markets have at least one road, often in atrocious condition, but that connects the market to the national road grid, meaning that buses and four-wheel drive pickup trucks reach the market and thus are used to redistribute produce to other rural markets or urban areas. Figure 6.5 provides aggregate data on transport for the four Grand Anse communities studied in 2018 HEKS-EPER/Socio-Dig survey. Figure 6.6, shows the consistency between these communities. In the pages that follow, the specifics for each of the four market chains is provided separately.

Figure 6.5: Primary Means of Transport to Market in Rural Grand Anse (N=451)

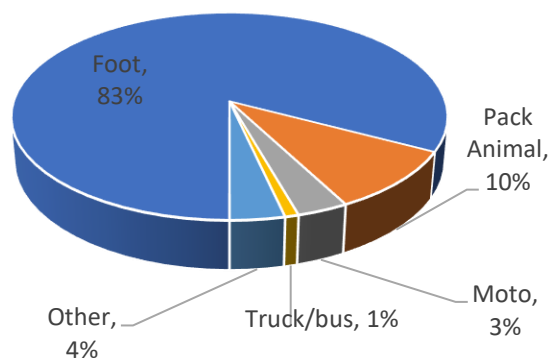
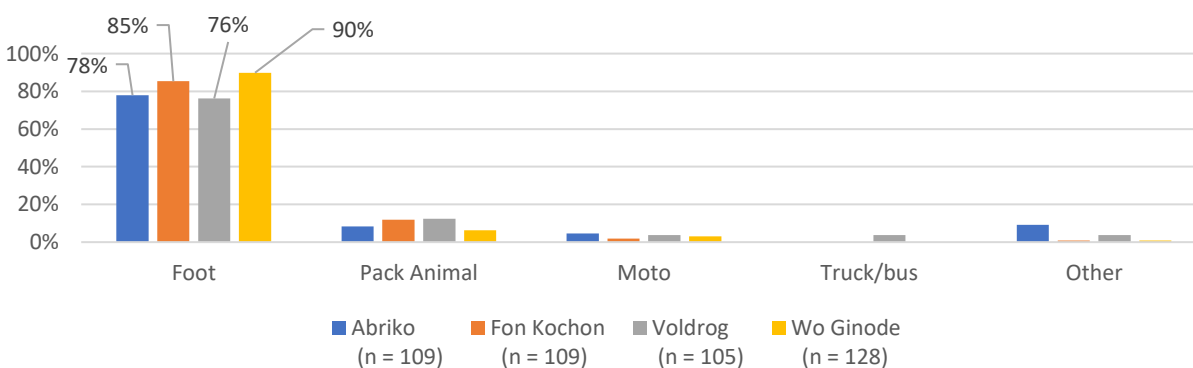


Figure 6.6: Primary Means of Transport to Market by Zone, Grand Anse



CACAO

Importance as a Crop

Cacao is Haiti's 3rd most important export crop after Vetiver and Mangoes. An estimated 15,000 to 25,000 households cultivate cacao; 60 percent of these are located in the Departments of the North and Northeast, 40 percent are located in the Grand Anse, mostly in the communes of Dame Marie, Chambellan, Anse de d'Hainault and Les Irois (see for example FAO 2019; MARNDR/IDB 2006; USAID/DAI 2013).^{xxxix} As with all four value chains, the producers are small landholders owning ~1.5 hectares of land and engaged in planting a multitude of annual crops and managing a variety of fruit-bearing trees. Haiti's contribution to the world supply of chocolate is minor, but for Haiti itself cocoa beans have been an important crop.

History

Although produced during the colonial area, cacao became a more important source of foreign exchange after independence. In the late 19th and early 20th century, cacao, along with coffee, accounted for the biggest share of Haiti's exports (IDB 2005).

The history of cacao in Haiti is one of monopoly and over-taxation that parallels that of the 19th and 20th century decline in coffee production (Trouillot 1990).

In 1960, the Haitian government created the Haitian Manufacturing and Specialty Company, a cacao monopoly, which paid low prices to producers, further discouraging production (Bourdet and Lundahl). HAMASCO was abolished in 1978, but today quasi monopolies continue to characterize the cacao market chain in Haiti, with Maison Geo Weiner SA (Café Selecto) dominating the cacao trade in the Grand' Anse and Maison Novella in the Department of the North (IDB 2005)



Open cacao pod

^{xxxix} Geo Wiener S.A. is a 1996 reinvention of Geo Wiener et Co, a coffee and cocoa purchasing company that has dominated cacao purchases in the area for at least 100 years.

The country's cocoa bean production declined through much of the 20th century, in part due to a mid-century period of low international cacao prices relative to prices of subsistence crops (Bourdet and Lundahl 1989; See Table 3). Cacao exports declined from an average of 4,510 tons in years 1980 to 2000 to an average of 4,276 tons during the past 15 years, precisely that

period of time when the \$624 million of international donor investments should have been having an impact.

Interventions

International development assistance to Cacao began in the early 1980s in the North with MEDA supported by USAID and Hershey's (see Part 1 ##). If we only consider projects that included US Government funding, since 1989 there have been at least 8 major USG and partner funded value-chain projects that included promoting cacao production for export as a significant component—typically also with promotion of coffee and mangoes.^{xxxiii} The total for those projects is at least \$351 million. And that is only part of it. Since 2003 the IDB and World Bank committed another \$302 million, including the current \$76 million PITAG project and \$21 million RPLP (see World Bank 2017; IDB 2016).

Uses

Cacao is only sold in Haiti as a chocolate for the processing into hot chocolate drink. The butter is used in cacao growing areas as a massage oil and to treat aches and arthritis. The main use of cacao is sale to the export chain. The syrup is discarded but it could and in other countries is increasingly used to make wine or liquor. There are claims that by some organizations in Haiti the beverage is fetching greater income than the cacao.

Products on same Value Chain

Cacao destined for export travels along the same formal value chain as coffee—with the same export agents purchasing both. However, the two products are not generally grown together. Cacao in Haiti grows optimally at 100 to 500 meters above sea level fvs. 1,000 meters and higher for the prevailing variety of coffee grown in Haiti (*Aribica Typica*).^{xxxiv}

Types

There are three varieties of cacao: Forastero, Trinidad, and Criolla. Only about 5% of cacao in the world is Criollo, considered the finest cacao. Forastero, a hardier and more disease-resistant variety makes up 80 to 85 percent of all chocolate. Some 10 to 15 percent is Trinitario, a natural hybrid of the other two. The majority of trees in Haiti and the Grand Anse are Criolla and Trinitario.

Altitude, Soil Types, Sunlight, Time to Maturity, Longevity, Size, Culling, Use of Wood

Optimal altitude for cacao is 30 to 300 meters above sea level, but in recent years trees are increasingly found in Haiti at altitudes as high as 1,000 meters. Optimal sunlight is 50 to 75 percent. Prefers moist black soil, and will not grow in dry soil, Begins to yield at three to 5 years

after planting and has a maximum yield period at 12 to 30 years of age but can live and produce fruit for more than 100 years. Grows to a height of 12 meters but for optimal yield should be pruned to 5 meters. The wood is used for nothing but charcoal production. Trees are only culled when they stop producing. Produces pods with cacao seeds but also filled with a sweet syrup.

Planting

Similar to most tree planting in Haiti, cacao tree cultivation strategies are best characterized as opportunistic rather than deliberate or planned, and producers seldom deliberately germinate or nurture cacao saplings trees. The fact that rats often open and hence distribute the seeds means that they easily sprout on their own. Producers will nurture a seed that sprouts on its own, they may even dig up the sapling and move it to a preferred location, but they seldom deliberately plant a sapling. Notwithstanding, some respondents in focus groups described semi-formal nurseries, but the claims were weak and dubious. The overwhelming expectation expressed is that nurseries and even tree maintenance are tasks of NGOs and the State. The only formal nurseries that have existed in the region were all either associated with the state or, more commonly, an NGO. ^{xxxv}

Intercropping

We know that all local agro-forestry trees and crops such as yams are found in growing near cacao, but the only other plant that focus group participants associated with cacao was breadfruit.

Inputs

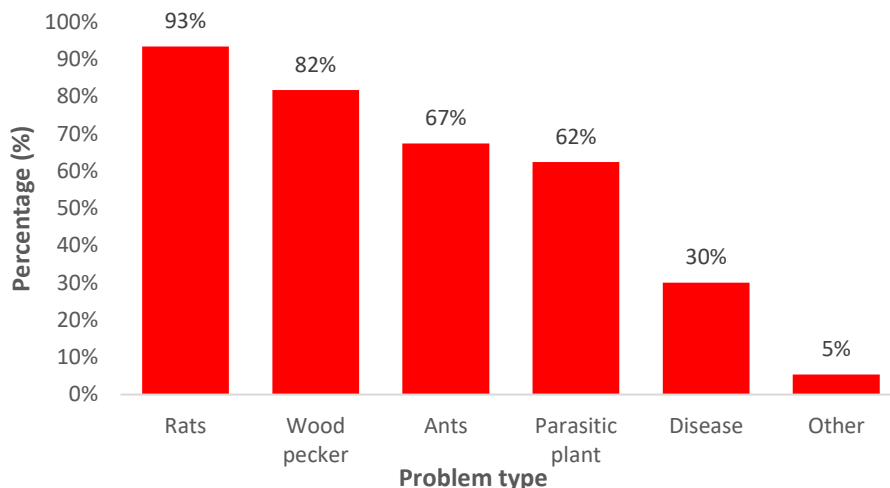
The trees are part of Haitian producers low investment and low risk agro-forestry strategy. Producers apply no fertilizers and no pesticides. The trees persist in a state of neglect. Those who own cacao trees typically do not clean the trees to allow for the appropriate amount of sunlight (50 to 75%), they do not cut them to the appropriate height (5 meters), they do not cull them when they are beyond peak productive age (30 years), they do not select for high producing seedlings. Without the financial and technical support of NGOs or contractors hired by international donors, Haitian small producers rarely even plant new trees, they do not graft those they have planted or that have grown up on their own, and when they do plant trees they do not space them at the appropriate distance.

Afflictions

Rats, woodpeckers, and an invasive species of ants that has arrived in Haiti only in the past two decades--locals call them MINUSTAH after the UN occupying mission--are the major pests. Diseases have reportedly increased in recent years. Farmers complained some about "black

soot”, something that is actually a byproduct of insect infestation (sugar excreted by the insects). White flies appear to be a significant part of the problem. However, similar to the MINUSTAH ants, there was no mention of Black Pod disease or Witches Broom in focus groups conducted this year. Stealing is dismissed as desperation and not a serious problem.

Figure 6.2: Cacao Tree Pests and Diseases as Reported by Survey Respondents



Harvest Seasons and Harvest Strategy

Cacao yields all year round In the Grand Anse, but there are three periods of the year when yields are greatest, what respondents called, “big harvests” (*gran rekolt*): March to Abril, and June to July, September to October. In some areas these seasons occur slightly later, so that for example people in Dezomo report the harvest season as November and December. Thus, harvests tend to occur at two to three-month intervals. Whenever it is that they exactly occur, the very biggest harvests of the year come in the period from August to November. The cacao pods are removed from the tree by climbing the tree, shaking the tree and sometimes with help of a pole with a hook on it. There is no concern for damaging the pod as all but the seeds are discarded.

Materials/Technologies

Informal

Producers use poles for harvesting. Sacks, basins and woven baskets to transport cacao. Three-gallon buckets are used measure and sell green cacao (*Ti Malice* bucket). Coffee cans are used to measure and sell dried cacao. The cacao can be fermented in buckets and barrels. Cements platforms and tarps are used to dry cacao on.

Formal

In addition to the informal chain above, cement platforms and plastic covered drying domes are used for drying. Cascading vats and barrels are used for fermentation. Roasters, motorized mills are used for processing. Refrigerators are used for storage.

Post-Harvest Processing and Storage

Informal Chain

For most cacao, the seeds and syrup are removed from the cacao pod. The syrup is discarded and in the majority of cases the seeds are dried for three to four days in the sun. Producers and intermediaries dry cacao beans on concrete slabs located in yards. This may be opportunistic, i.e. a road, or slabs poured specifically for drying coffee and cacao. In the absence of concrete, the seeds are placed on canvas, wood, scrap tin, or a tarp. They can then be either sold to speculators or grilled and stored for up to one month. Or they can be processed into chocolate, which can then be stored for one year or longer (see Secondary Processing, below). An alternative is to sell green/wet beans to the cooperative for fermentation. This must be done within 24 hours of harvesting the pods.

Semi-formal and formal chain

Fermented in barrels and vats for 6 days (may be as little as 4 days and up to 9 days depended on the desired taste and aroma). Dried on concrete slabs and in drying domes (plastic greenhouse-like structures with racks).

Secondary Processing

Informal chain

Processing into chocolate: The beans are grilled (if not already grilled), shelled and then pounded with mortar and pestal. The process is repeated twice. The paste is placed in plantain leaves, made into balls and left to cool. Conversion rate is 3.5 lbs of chocolate for 4 lbs of beans. They do not separate out the grease.

Formal chain

Grilled in special ovens and then shelled by hand. If converted to chocolate, crushed in motorized mills. The paste is poured into molds and then cooled in a refrigerated unit. Cacao butter (fat) may be separated.

Work Organizations and Sexual and Age Division of Labor

Informal Chain

If there is planting and trimming of trees, male members of the household will typically do the work. Women play a significant role in the harvest, transport and sell the beans, but less so than in most crops. The actual picking of the fruit is the task of boys and men. Women gather it off the ground after it has been detached from the tree. Children will help with all tasks. Boys are more likely to help pick, sort and transport the pods. Girls will sort and help their mother's package, transport, dry and sell the beans. Men play a prominent role in drying. Even at the household level, men are conspicuously more involved in the marketing of cacao than with other fruits or crop. Women are as or more prominent among *zonbi* than men (itinerate purchasers seen earlier), but men are almost exclusively speculators and, regardless of what cooperatives leadership claims, men by far if not totally dominate leadership and marketing roles in the cooperatives. The reason for this is that throughout Haiti, whenever the market is formalized through purchasing agents or cooperatives the chain shifts from female to male dominated (See Schwartz 2019b).

Semi-formal Chain

The semi-formal chain differentiates from the preceding at the point of processing. All rural-based processors are women. This is not true in city-based processing ateliers, as with chocolate maker Makaya. For the few informal businesses, men are as or more likely than women to be entrepreneurs who own an atelier, but they employ women processors. In the case of women cooperatives—typically underwritten by and NGO or international donor such as the World Bank or FONKOZE— pay comes in the form of profit sharing. The money is recycled within the organization in the form of interest-bearing loans.

Formal Chain

Processing cooperatives and the purchasing houses use paid labor. There is also a shift from equal or greater female participation to almost all male labor in all phases of drying and handling. But the overall impact on regional employment vs. the estimate of producers who participate in the market chain is miniscule. All cacao cooperatives in all of Haiti might employ 100 people-might— vs. the 20,000 households that own trees.

Tenure

Gender and Household: Both men and women own cacao trees. However, as men tend to be thought of as the owners of gardens and tending gardens is thought of primarily as a male undertaking, men are more often considered the owners of these trees.

Rentals: Cacao trees are never rented out and seldom is the harvest sold because they are not annual harvests, but rather three peak harvests per year with a smaller yield all year round.

Market Venue

As seen in earlier sections, 90 percent or more beans of cacao are sold to the export houses through one of the following channels, 1) through traditional itinerate marketers (*zonbi*) who work for speculators—many of whom are capitalized directly by the export houses, 2) by the producers themselves, 3) by cooperatives that get the cacao directly from the producers but sell most of their cacao directly to the export houses. A far lesser quantity is sold to local micro-transformers. Chocolate is primarily sold in the informal internal market system, in high-end and mid-level formal-chain markets and specialty shops, seldom in *boutik*.

Stakeholders

Small producers: The trees are cultivated and harvested in the context of labor organized around the household. The average holding is almost certainly similar to cashews with most households owning less than 50 trees and landowners in the most important cacao areas having an average of 300 trees. The Socio-Dig survey found extraordinarily high numbers for cooperative members in both the North at 2,243 trees/member and the Grand Anse at 1,189 trees/member (see Table 6.6). We believe these figures are the result of two factors: 1) the very high number of trees owned by a minority of cooperative members, 2) prevarication on the part of cooperative members who thought that reporting high numbers of trees increased the likelihood of assistance. We know the survey was valid from focus groups and follow-up phone calls to 10 percent of respondents. But the individual reports for trees did not match with corresponding value for land ownership nor with expectations from the best qualitative assessments of the cacao value chain (see Quénéhervé et al. 2015).

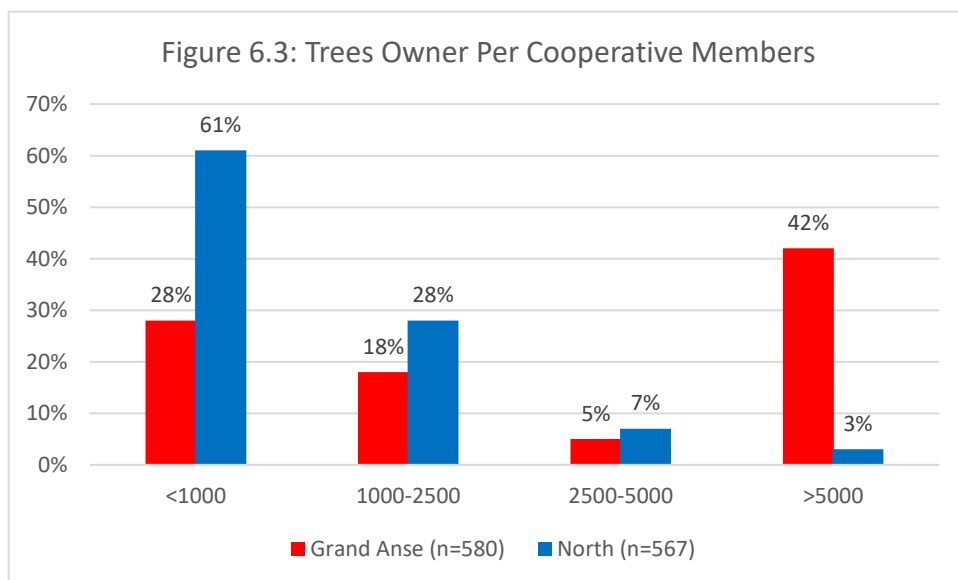
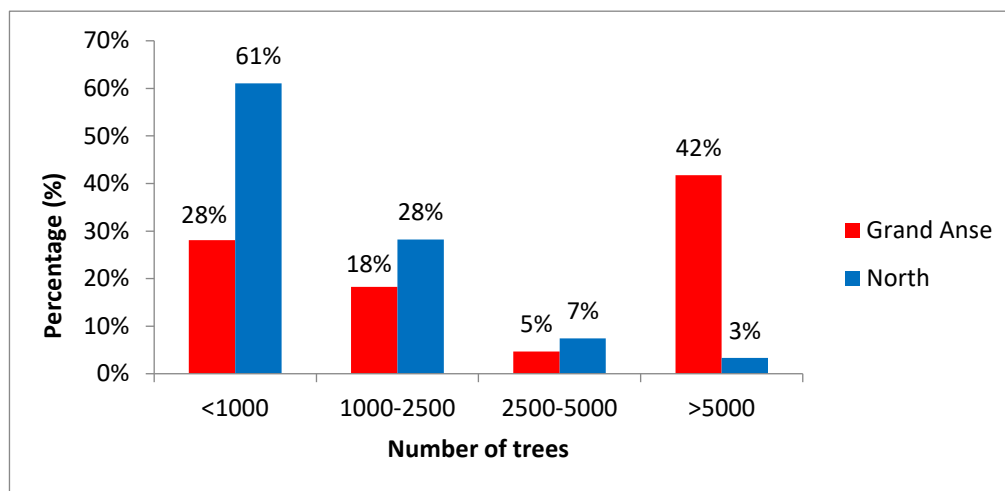


Figure 6.4: Cacao Tree Pests and Diseases as Reported by Survey Respondents



Primary Itinerant traders: Called *zonbi*, these itinerant purchasers scour the countryside purchasing cacao in the yards and sometimes gardens of producers. In the past they worked for speculators licensed by the state to supply the purchasing house monopsony. Some *zonbi* also sold on the local market, transformed the cacao into chocolate themselves for resale and/or sold the cacao beans to women who did the processing. Most cacao in the Grand Anse continues to be aggregated through this traditional, export house system. *Zonbi* continue to work for speculators but sometimes work for the cooperatives as well.

Speculators

Speculators were and still are linked to the export houses. They were in the past licensed by the state, making it a type of patronage system, i.e. not anyone could be a speculator. They tended to be politically connected, leader-entrepreneurs. They were often capitalized by the purchasing house and worked on a commission basis.

Export Houses: The only export house in the Grand Anse is Maison Weiner. There is one other Haitian urban-based family that purchases and exports cacao from the Grand Anse, but it is a small quantities. As explained in the History section seen earlier, the elite exporters traditionally enjoyed a monopsony, depending on a government licensed speculator system. International donors introduced the cooperatives in the 1980s intended to break the monopsony and create a competitive market. More recently this trend has been reversed such that the cooperatives perform much as the speculators and sell the cacao directly to the export houses. Maison Weiner confirmed they still purchase most cacao directly through the traditional networks, but they now also increasingly purchase from cooperatives, particularly CAUD, considered by Maison Weiner as the only well-organized cooperative in the Grand Anse. What we are seeing is a shift in the value chain from cooperatives and purchasing houses competing for the cacao beans to one

where the cooperatives do the purchasing and the purchasing houses buy and resell from them. Similarly, we know from the 2014 Socio-Dig surveys (see Socio-Dig 2014) that intermediary roles—the *zonbi* and speculators—are increasingly becoming and/or being taken over by members of the cooperatives who use their access to the cooperative to sell cacao beans at a profit and to gain access to *ristoun* (rebates). Although participants in the focus groups did not specifically acknowledge this trend, they spoke at length about the marked increase in intermediary purchases of wet cacao, a part of which likely goes directly to the cooperatives for fermentation. We also can infer from differences in the reported sales to cooperatives vs. the *ristoun* that at least some cooperatives members are using their cooperative membership to trade in cacao at a profit.^{xxxvi}

Informal Local Market Chain

Processors of chocolate: Almost entirely female members of households that own trees. These women process the cacao beans into chocolate balls that can be stored for as long as one year and that are easily transported.

Resellers of chocolate balls: Almost always women, they may be the same female processors seen above, some come from the city. Most often however they are local residents who aggregate the chocolate and resell out of home, in local markets, or take it to the city markets.

Chocolate drink Vendors: Entirely a female activity, these women are sometimes the same as those who processed the cacao beans into chocolate. Even more frequently they are women who purchase chocolate balls either in the markets or directly from the resellers seen above. The chocolate is boiled in water. They then add milk, sugar, cinnamon, nutmeg, star anise, and a local spice called *pepinel*. The liquid is sold by the cup with bread. The same vendor might offer the option of peanut butter on the bread and banana, and/or roasted peanuts. The vendors sell from fixed locations in markets, by the roadside or off their front porch. Hot chocolate is considered a breakfast food and only sold in the morning.

Semi-Formal Local Chain

Local Entrepreneurs: A new type of role is the local entrepreneurs trained in NGO financed seminars who aggregate chocolate from other local processors (women), training the women and assuring quality. They sell to supermarkets, bakeries and specialty shops in urban areas, most of which are located in Port-au-Prince. There are few of the former (see following sections). A small number of these entrepreneurs have attempted to make specialty products, such as cakes, but the impression from focus groups and visiting

Processors: These women work in the atelier of the entrepreneur as salaried employees. The entrepreneur is as often as not male, albeit there are only a few such businesses. We identified only two.

Women Cooperatives: Groups of female processors who have been underwritten by NGOs or donors. These are not included informal sector cooperatives because they target the local market, meaning provision stores and urban markets more appropriately classified as formal sector. One focus group was conducted with women of CHOCODAM, a female processing cooperative in Dame Marie (see note on the terminology of “cooperative” vs. “association”).

Urban Super Markets and Specialty Shops

The target buyer for the semi-formal market chain are the half dozen top-end super-markets in Port-au-Prince (none elsewhere in the country), specialty shops, elite bakeries and mid-level markets in both Port-au-Prince and the outlying provincial cities, all discussed about in the section on Marketing venue.

Cooperatives/associations: As per above, beginning in the 1980s the cooperatives were promoted by international donors, most importantly USAID. The goal was to help farmers invest in production and create a competitive market.

Table 6.8: Cooperatives in the Grand Anse that Participate in the CACAO value chain

Name	Acronym	Location
Coopérative Agricole	CACOMA	Abricots
Coopérative Agricole Tèt Ansanm Peyiza Sica	CAPETS	Anse d’Hainault
Coopérative Agricole Union Développement	CAUD	Dame Marie
Coopérative de Production et commercialisation du Cacao	COPCOD	Chambellan
Coopérative Agricole Anse d’Hainault	COAH	Anse d’Hainault
Coopérative Cacaoyère de Moron	COCAM	Moron
Coopérative Cacaoyère de Dame Marie	CACAODAM	Dame Marie

NGOs: NGOs are formal entities. Their activities target the producers but they work through other formal entities, specifically with the Purchasing Houses and Cooperatives. With CACAO, the NGOs function middle between Donors and Cooperatives. They are essentially admin and accountability agents. They include CRS, CARE International, PADF, ACTED and the Suisse Red Cross. Although NGOs claim to take as little as eight percent administrative costs, as much as 50 percent will get sent back to the home office overseas; at least another 25 percent typically gets spent on administration in Port-au-Prince leaving a relatively small proportion of the budget to be spent on work in the field.

US Government Contractors: US Government contractors function almost exactly like the NGOs above. They are formal entities, their primary work is administrative, hiring consultants and delegating work to cooperatives. They also sub-contract work to NGOs. They typically take as much as 50 percent profit for shareholders and much of the remainder is spent on administration, salaries, and consultant fees with a relatively small proportion making it to field projects and cooperatives.

Haitian Contractors: This includes the export houses that having increasingly come to play a type of dual-role, acting as the exporters and also as implementing and oversight agencies for the donors, contractors, and NGOs. For better or worse, the situation is ironic in that this means export houses have become contractors paid to increase production which is, 1) of greatest benefit to them, but also, 2) expects them to act as catalysts in the endeavor to overcome the market chain bottleneck that was originally considered the consequence of their own monopsonic practices. In the North this new relation has been formalized with USAID/DAI/AVANSE negotiated and underwritten contracts between cooperatives and the export house Novella—the largest cacao exported in Haiti (founded in 1920), and with USAID grants given to PISA, an entity that performs as a cooperative but is in fact a wholly own subsidiary of Rebo, the other major export houses in the North of Haiti (founded in the 1970s). Similarly, in the North we can include in this category of Haitian contractor market cooperative such as FECCANO, that performs work on behalf of donors for pay. Working in the Department of the South and South East, we can include the private enterprise Ayitika that also functions like a cooperative providing trees to producers and cleaning older trees, but as a service paid for by international donors. The CEO of Ayitika has every intention of graduating into an Export House. In the Grand Anse we see this same relationship between Donors and the NGO CRS. Funded by the IDB, CRS contracts Maison Weiner (Selecto, S.A.)—the second largest export house in Haiti responsible for exporting 90 percent or more of cacao from the Grand Anse--to manage tree nurseries and train producers. Similarly, Kaleos, a private exporter/social enterprise based in France but that works with cooperatives has acted as a contractor getting support from CRS/IDB and Root Capital to oversee the management of tree nurseries and tree planting.

One-stop-Shop Producer-Vendor: A more recent type of participant in the value chain are entrepreneurs that attempt to purchase cacao directly from the producers, and then ferment, dry, process the beans to make gourmet chocolate products. Regarding exports, these entities have met with mixed success, largely because of the challenges of procurement, licensing and export manifests. The most notable—and perhaps only surviving entities are Askanya and Makaya both founded in 2015.

Social-Enterprise Vendors:

A special type of vendor that must be included in the value chain are social-enterprises that claim to be working directly with producers and cooperatives and assuring fair wages, gender equity, and reforestation. Most have little to no direct contact with the producers, rather they purchase cacao from the export houses, marketing cooperatives, sometimes complete with label, but usually they transform the cacao to chocolate overseas and put their own label and claims assuring the cacao was sourced from fair-trade entities. Some of these organizations have sent representatives to Haiti to work directly with producers and verify their claims—such as Singing Rooster—some have ongoing formal and close supporting relationships with the Haiti based organizations they support—such as Taza with PISA in the North—and at least one maintains an office in the cacao growing areas and provides direct support to their partner cooperative—as with Kaleos and the cooperative CAUD in the Grand Anse. In fact, Kaleos is a special case in that they are a type of hybrid entrepreneurial *nouvo-purchasing houses* social enterprise chocolate maker, in that they not only support and give guidance to CAUD but they also export small quantities of cacao to France and there transform it into chocolate for the gourmet market.



Overseas Vendors of Chocolate Products: Traditionally the major purchasers were large chocolate producers such as Mars in Great Britain, in Switzerland and Hershey's in the US. With the increase in social responsibility, specialty shops, and artisanal chocolate makers, most vendors better qualify in the above category "social-enterprise vendors." Producers. However, there are some entities that simply buy cacao and transform it into chocolate with no other purported objective than making good tasting chocolate. These include Hershey's Chocolate in the USA, Mars in the UK, as well as smaller chocolate markets Palette de Bine in Canada, Uncommon Cacao in the USA, and Hogarth in Australia.

Secondary Stakeholders

Transporters (local moto taxis, trucks going to the city) employees of the Maison, temporary agricultural laborers. The children of households, who themselves contribute labor—serving as the principal source of labor for the women—and who are beneficiaries of the value chain in the form of food and school tuition. Indeed, the most common response to labor was "husband" and then "children" and the most common response to how cacao helps was in educating the children.

Financial underwriters

Informal

Cacao trees are almost entirely owned by small producers who, as seen in the introductory overview, make little to no investment in the trees. They accept employment on and support from donor-funded planting and tree-cleaning campaigns. Their *de facto* behavior in this respect—accepting the employment, personally neglecting the trees, making investments in other agricultural activities that yield higher returns—suggests they evaluate cacao as not worth their own investments.

Semi-Formal

The operations are in most cases underwritten by micro-credit. In the case of the women's cooperatives they are always underwritten by credit from a humanitarian aid organization. Typically, this money passes through several institutions. Creating an aid value chain: Donor to US Contractor or NGO to NGO to Haitian Contractor to Cooperative to Producer.

Regarding payment from the vendors—supermarkets and specialty shops—the entrepreneurs and female cooperatives capitalize the vendors by giving them the chocolate on credit. Focus group participants lamented the complexities and time-lags in collecting payments from Supermarket such as Caribbean Market and Giant.

Formal

Donors have underwritten costs in the form of nurseries, tree cleaning, fermentation technology, and training. It is not clear how much Social-Enterprise such as Kaleos and PISA in the North have contributed. For example, Kaleos entrance into the Value Chain in 2011 occurred in association with the low interest lender Root Capital, and contributions from Lutheran World Services. Donor organizations including IDB, World Bank, USAID, EU, Belgium, Norway and French governments have contributed funds for that subsidize training, materials, cleaning of trees, tree nurseries and planting. As seen Kaleos and virtually all the private enterprises that should be sustained by profits from cacao sales, have also been supported by donor money intended to reinforce the value chain. It may be that in some cases, such as with the cooperatives, the donor dollars become more important than the profits from

Measures and Evaluation of Prices

Export House, Speculator and Cooperative

The principal form of sale is dry cacao and it is sold to the export house-linked speculator and cooperative in the volume measure *mamit* (1 *mamit* = 4 lb or 1.8 kg). The prices are always the same for both cooperative and speculator. In 2019 it was 150 HTG per *mamit*. The incentive to sell to the cooperative is a *ristoun*, a rebate that comes several weeks or months after the sale. As seen in the first section of the report, survey data reveals these rebates were not equal to claims made by the cooperative. Claims varied from 17 percent to 36 percent of the original sale

price, vs. the average of eight percent among surveyed cooperative members. Moreover, for the year of the survey—2014—25 percent of respondents in the Grand Anse claimed they did not receive any *ristoun* at all for their cacao. We also saw in the first section of this report that the actual amount of cacao exported through all the cooperatives in Haiti declined from 1,520 tons in 2003 to a mere 228 tons in 2014, less than five percent of exports for that year. Cooperatives have been increasingly selling their cacao bean to the two main export houses, putting the whole question of *ristoun* in question.

Zonbi

The itinerate *zonbi* trader who traditionally worked for and speculators sometimes buy “green” cacao, meaning cacao that has not been dried. The prices are the same as if it had been dried. Specifically, they purchase the green cacao by the *bokit*, for 100 HTG to 120 HTG. One bokit = 1.7 *mamit* wet, but when dried it equals exactly 1 *mamit*. So they are purchasing cacao at a price of what translates to 100 HTG to 120 HTG per dry *mamit*. If they purchase dry cacao they pay 150 for 8 *gode* (1.33 *mamit*). There are 6 *gode* to a *mamit*, which translates to 112 HTG per *mamit*, basically the same average price they pay for the green cacao.³

Processed chocolate

Chocolate is sold in balls of two different dimensions, ~38 grams and ~54 grams. Using the later to calculate costs in the rural areas vs. Port-au-Prince, we start with 18.5 balls per kilogram:

- Grand Anse: cost of 6 balls = 100 HTG = at 17 HTG per ball = 315/HTG/kg = US \$3.50/kg
- Port-au-Prince: cost of 4 balls = 100 HTG = 25 HTG per ball and = 463 HTG/kg = US \$5.14/kg
- Consider that the conversion rate for cacao beans is 3.5 lb chocolate for 4.0 lb beans (.875), thus we can conclude that the value of cacao beans converted into chocolate and sold on the local market is, Rural Grand Anse: \$3.06 and Urban Port-au-Prince : \$4.50

Summary Comparison of Local vs. International Prices

Chocolate has a limited local market, hence 90 percent or more of cacao is sold to export houses. However, this is changing, as evidenced by the fact that the export houses themselves have entered the local market. Moreover, for those who convert chocolate and sell it in the Grand Anse cacao producing areas, the local market elevates the value of the cacao beans to three times the cooperative purchase price. If they take it to be sold on the Port-au-Prince market, the value is five times what the cooperatives pay for the equivalent quantity of beans (see Table 6.9). If we evaluate the price that speculators and cooperatives resell cacao locally as a ratio of what they pay to producers (Table 6.10), we see that speculators are making 84 percent profit, which is two to four times the profit they get from selling to the export houses (20 to 33 percent). Cooperatives themselves are taking an 87 percent profit on rejected cacao beans (pieces and beans that cannot be sold to the export market) and a 124 percent profit on quality beans sold to local producers.

³ 1 sack = 30 *mamit* = 120 lb

For those who convert cacao beans to chocolate and sell the balls on the local market, the profit over the cooperative price is 211 percent if they sell it in the cacao growing areas and 355 percent if they sell it in Port-au-Prince.

Table 6.9: Cacao Prices to Local Market vs. Purchasing and Selling Agents

Form	Purchaser	HTG/mamit	HTG/lb	US Price per lb	HTG/kg	US Price per kg	Proportion of 2019 NY Commodity Price
Bean Purchased from Producers	Zonbi	112	28	\$0.31	62	\$0.69	27%
	Speculator	150	37	\$0.42	83	\$0.93	36%
	Cooperative	150	37	\$0.42	83	\$0.93	36%
	Coop. w/Ristoun	162	40	\$0.45	90	\$1.00	38%
Beans Resold to local processors	Speculator	300	75	\$0.83	165	\$1.83	70%
	Cooperative (rejects)	n/a	79	\$0.88	167	\$1.86	71%
	Cooperative (quality)	n/a	90	\$1.00	198	\$2.20	85%
Beans converted to Chocolate	Grand Anse local	150	170	\$1.39	375	\$3.06	118%
	Port-au-Prince local	150	184	\$2.05	405	\$4.50	173%

*1 *mamit* = 4 lbs or 1.8 kg; 1 USD = 90 HTG (Fall 2019 rate); NY price in December 2019 = \$2.60/kg

Table 6.10: Local Market Prices as Proportion of NY Commodity Paid by Cooperative to Producers

Form of Beans	Reseller	Sale Price per kg (USD)	Proportion of Cooperative Price w/Ristoun paid to Producers	Profit
Beans Resold to local processors	Speculator	\$1.83	184%	84%
	Cooperative (rejects)	\$1.86	187%	87%
	Cooperative (quality)	\$2.20	224%	124%
Beans converted to Chocolate	Grand Anse local	\$3.06	311%	211%
	Port-au-Prince local	\$4.50	455%	355%

Package and Transport

Until recently it was illegal to transport cacao beans if not connected to an export house. Export houses use their own transport. Transport of chocolate balls on public transport. For 600 dozen (400 kg) to go to Port-au-Prince, the cost is 3,500 HTG (US \$40) or 10 US cents per kilogram.

Capital

Purchasing houses capitalize speculators who capitalize itinerate purchasers *zonbi*. The investments that purchasing houses make are limited to purchases. Only with money from international donors do the export houses invest in producer owner trees. The cooperatives are

capitalized entirely by international donors and have proven over the course of the past 40 years either incapable of or unwillingly to become sustainable based on their income from reselling cacao, hence Donors, NGOs, and contractors have increasingly invested directly in the export houses.

Consumers

Local consumption is almost entirely in the form of hot chocolate sold on the informal market, with a very small and relatively new outlet being the high-end supermarkets in Port-au-Prince. Female household heads purchases and make chocolate to be consumed with bread a as a morning meal. More significant than home consumption is chocolate prepared by merchants and sold in street as a breakfast food. It is typically found at informal locations-- bus stations, markets, schools, and other heavily trafficked roadside venues. The chocolate is sold with bread to be eaten at the point of sale.

CASHEWS

Importance as Crop

There are an estimated 36,000 families in Haiti with from 5 to 30 cashew trees each but what little is known about producer suggests a 50 percent decline from the 1970s. The best estimate is probably 250,000 total trees with a production of ~5 kilogram per tree for ~1,250 metric tons per year (see Rhoads 2014). Most cashew production is concentrated in the North East and the Northern part of the Plateau Central with some production scattered elsewhere throughout the country, including an important concentration of production in the commune of St. Jean du Sud where the research was carried out for this report (see Figure 6.1).

History

Cashews are native to the Caribbean, but there is no readily available literature regarding historic production in Haiti nor is there in historical accounts in the available development reports. The image of cashews in Saint Jean and elsewhere in Haiti is of an industry that once had thrived and was formalized. It is known that as late as the early 2000s St. Jean had four formal cashew processing ateliers in the town center. Like so many industries in Haiti, production has degenerated to an informal and weakly managed part of high diversity, near the 0-investment, 0-risk strategy prioritized by rural prioritize.

Similarly, it is not clear if most cashew trees that exist today are native and of wild origin. There are sporadic mentions of cashews trees being cultivated in NGO nurseries and distributed as part of reforestation campaigns. However, as discussed below, cashew are not easily transplanted and hence better planted as seeds and left in situ. Today none of them are functioning.

Figure 6.1: Distribution of Cashew Trees in Haiti

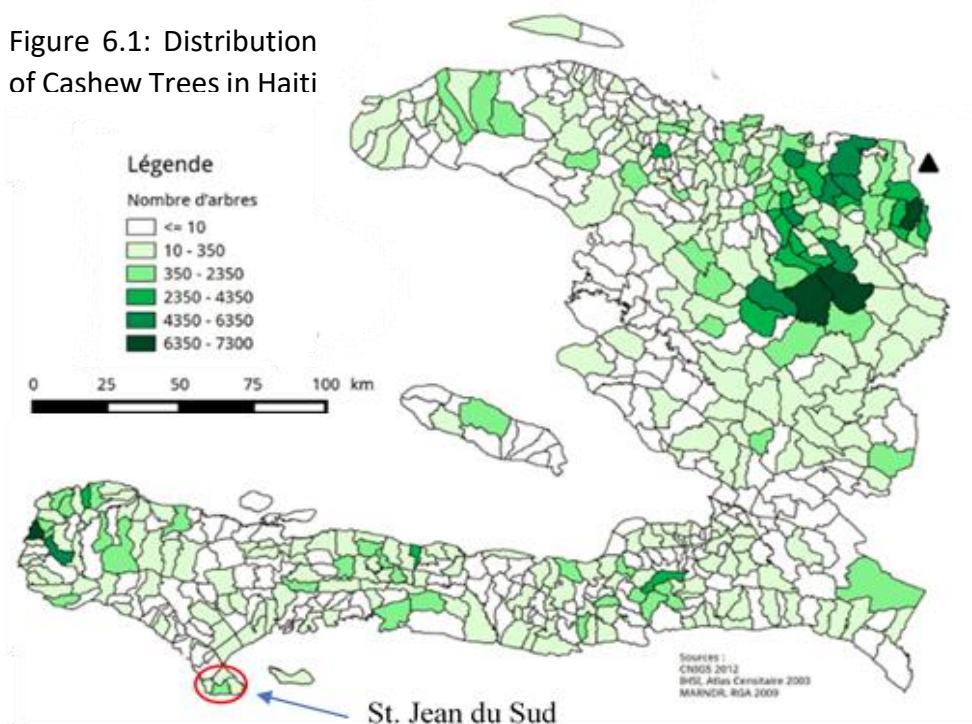


Table 6.4: Cashew Trees per Producer Household, St. Jean du Sud, N=50 (Source: Denis 2018)			
Proportion of sample	Number of trees	Income in USD	Income in HTG
74%	10 to 20	US \$215	HTG 13,751
20%	20 to 49	US \$432	HTG 27,665
6%	50 plus	US \$873	HTG 55,850

Random sample of 50 growers in Saint Jean

Interventions

Cashew trees are reportedly included in some NGO and MARNDR tree nursery projects. There were no reports of recent assistance in the Grand Anse to cashew producers. There was a program in Les Cayes that training women in improved preparation technique for making *tablet* (cashew sugar clusters/brittle).^{xxxvii}

Uses

Cashews neatly fit as they are a remarkably hardy, drought and pest resistant tree that will grow in almost in type of soil or terrain and continue to provide two harvest per years of two to five kilograms per tree with virtually no maintenance. The fruit and especially the seed is a valuable source of protein and fats. Roasted (*nwa griye*) or scalded (*nwa kalsine*) and sold to eaten as snacks, made into sugar clusters or cashew brittle (*tablet*) that are also sold, and sold as raw seeds to be cooked in sauces and consumed with meal of rice, cooked in the rice and sweet beans, or added to mashed vegetable sauces (*legim*). It is also milled and, like peanut butter, spread on bread and cassava. It can also be substituted for peanuts in the Haitian treat called *chanm chanm*, ground corn and peanut powder. The *chanm chanm* is not something sold but rather made for consumption or gift to family, friends and neighbors. The apple is the obvious foregone income opportunity in the Haiti cashew industry. Whereas producers in Africa and India are capturing as much as 50 percent value addition from making juice from the apple, in South Haiti the apple is usually fed to livestock but it can and sometimes is used to make jelly and less frequently the juice is used to make wine (Egbejule 2017). The shell is discarded but it makes up 70 percent of the mass of the cashew nut and 30 percent of that is Cashew Nut Shell Liquid (CNSL), a viscous and caustic liquid that is used in industrial paints, laminating resins and as intermediates for chemical industry. It can also be used as a fuel.

Products on same Value Chain

None. Although cashews appear similar to peanuts--are roasted and eaten as such, many into butter and then sold as a spread on bread and casava, as well used to make tablet (sugar

clusters)—the value chain is emphatically distinct from peanuts. Cashew processors, wholesalers and vendors operate in a distinctly different value chain than that of peanuts. Moreover, while cashews are eaten in sauces and with meals, peanuts are not.

Types

Some producers make a distinction between two sizes of seeds from two different varieties of trees. Producers also recognize at least three types of apple (pom), distinguished by the color, size and taste of the apple: *nwa kajou* described as rose or wine colored; *pom blanch* described as white apple, and *pom anana* (pineapple) described as yellow. The *Kajou was* was associated with the larger seed.

Altitude, Soil Types, Sunlight, Time to Maturity, Longevity, Size, Culling, Use of Wood

Similar to cacao, prefers low altitudes up to 1,000 meters above sea level, full sunlight, and fertile black soil with good drainage but, different than cacao, will grow in any soil except clay, even rocky and limey dry soils. If planted in moist, black soil it will begin yielding in three years. In less fertile soil begins to yield in 4 to 5 years. Maximum yields are from 12 to 50 years, but can live for a century or more. Grows to a height of 14 meters with no limitation on optimal yield for height i.e. no trimming necessary. The wood is used for nothing but charcoal production. Trees are only culled when they stop producing. Produces seeds and slightly sweet apples.

Planting

Planting cashews can be described as the same opportunistic seen in the value chain overview, except that producers more frequently take the initiative to deliberately plant seeds and care for them and they more frequently care for plants that have sprouted on their own, often digging them up and moving them to an more propitious location.

Intercropping

No tree or plant will grow in association with or underneath cashews except for yams, the vines of which are allowed to support themselves on the cashew tree.

Inputs

Farmer use neither pesticide nor fertilizer on their trees. Nor do farmers make significant efforts to prune the trees.

Material Technology

Cashews are generally gathered off the ground after they have fallen from the tree and placed in buckets, hence there is no technology unique to cashews.

Afflictions

Rats and farm animals will eat the apple, but for the seed in its shell, ants are the only pest and only after harvest. If ants get into the stored nuts, even though they are in the shell, they will devastate them. The only defense is diligence and moving the nuts to a different location. Similar to breadfruit, stealing is not considered a serious problem and, when it occurs, is attributed to hunger.

Post-Harvest Processing and Storage

The hard-shelled nut in which the seed is contained is separated from the apple, a process that producers refer to as *chatre*, literally, “to castrate.” The nut is then washed and dried in the sun for three days. The nuts can then be stored for up to two and even three years, so long as they have been properly dried. They must be stored in a dry location where ants cannot get to them. In the case of nuts harvested during the short spring season, the immature nuts called *nwa dlo* (water cashews), the producer will *toufe* the nuts, meaning put them in a sack, cover them with dry plantain leaves, and leave them in a dry place to ripen, something similar to what is done with mangoes. Cashews can be stored in the nut for years without any problem, so long as they have been sufficiently dried, remain dry, and ants are not able to access them.

Materials/Technologies

The process used to extract the cashew seed is different in the south than the process of burning the nut in the north and vaporizing the CNSL. Instead, the nut is placed in a *bwoch*, a board or log with a split into which the nut can be inserted. A knife is then held against the nut and struck with a heavy piece of wood, splitting the nut and also splattering Cashew Nut Shell Liquid (CNSL), a caustic liquid contained in the shell that burns the skin, leaving scars and, according to focus group participants. The seed is then removed with a pair of needle nose pliers. The seeds are soaked in water and washed with detergent and/or salt to remove any remaining CNSL as well as yet another tough, shell like exterior. The naked seeds are washed again and dried in the sun. They are then either sold raw for cooking in sauces or used to make one of three different foods: *nwa griye*, cooked cashews, *nwa kalsine*, roasted cashews, *tablet* (cashew sugar cluster or brittle).

- To cook cashews (*nwa griyel*) they are placed in a cooking bowl with either rice or corn (to keep them from burning) and stirred until thoroughly roasted.
- To make burnt cashews (*nwa kalsine*), the seeds are placed on a flat skillet or piece of steel and cooked until slightly burnt.
- To make cashew sugar cluster or brittle (*tablet*), the seeds are cooked in a pot and then mixed with melted sugar, cinnamon, ginger, bergamot, and nutmeg. When fully mixed,

the paste with the cashew seeds embedded in it is then placed in cookie size clumps on a board, plate, banana leaf or sheet of plastic. They are allowed to cool until they form hard clusters.

Work Organizations and Sexual and Age Division of Labor

If there is planting and trimming of trees, men will typically do the work. Women and children will participate in if not dominate the collection of seed and apples off the ground, separating the seed from the apple, and washing and drying the nuts, although men may help in all these activities. When harvested from the tree rather than picked off the ground, boys and men may contribute more by climbing the tree, shaking branches, and pulling off hard to reach and stubborn fruits. Splitting the nuts is done by women and men but not children, because of the caustic CNSL (Cashew Nut Shell Liquid). Women and men may roast the seeds. Making tablets is exclusively a female activity as is selling both seeds and tablets. Laborers are hired to participate in splitting the nuts. As most producers have 50 trees or fewer and the nuts preserve for long period and hence can be processed over months or even years, it is usually only one or two people hired to assist. They are paid 250 to 300 HTG per day (~\$2.50 to \$3.00 at the time of focus groups) or they are paid an equivalent value in seeds. Children do not split nuts.

Tenure

Both men and women own cashew trees. There are men who own large quantities of the trees. However, cashews are considered more as female tree crop. Cashew trees are sometimes rented for 1 to 3 years and the harvest may be sold.

Market Venue

Raw cashews sales are associated with the peculiar tradition of being sold at bus stations and crossroads. One also finds them in the internal open-air markets and to some extent in the high-end and midlevel formal market, but not *boutik*.

Stakeholders

Producers: Similar with cacao, other trees, crops and livestock, cashew trees are cultivated and harvested in the context of labor organized around the household, with the average household holding of

Processors and traders: Predominantly women, some of whom own trees but some if not most of whom do not. They process the cashews into raw or roasted seeds or tablets and then sell the products themselves with help from children. Most are sold in the bus station in the City of Les Cayes.

Smaller retailers: First level purchaser/processors often give other retailers small quantities on credit to sell.

Laborers:

One to two laborers-- neighbors and adult family members-- are hired to participate in splitting the nuts. Usually they are paid with part of the production.

Urban Super Markets and Specialty Shops:

There are some processors who sell to urban markets but we identified none during the course of the research (see cacao section for description of the formal market value chain).

NGOs: Cashews trees are sometimes included in NGO sponsored tree nurseries, common following 2016 Hurricane Matthew. As seen in endnotes xxxvii and xxxviii, the organization TTFF makes questionable claims about giving seeds away.

Secondary Stakeholders

Transporters (local moto taxis, trucks going to the city)

Capital and Financial underwriters

Producers and market women themselves.

Measures and Evaluation of Prices

Significant figures:

- 1 mamit of cashews in the shell = 5.35 lb =
- Low price for 1 mamit during harvest season = US \$4.45

Summary Comparison of Local vs. International Prices

As can be seen in Table 6.11, below, despite inflation and the volatility of the Haitian Gourde, in any given year the USD farmgate prices for Haitian cashews are remarkably consistent, and they are consistently 3.7 times the price of cashews on the international market. This is before they processed. As for the processed nuts, based on the sale of 113 gram sachets sold at the bus station in Les Cayes and in Port-au-Prince for 250 HTG, the gross retail income in 2020 is US \$24/kg, or US \$24,000 per ton, which is exactly what Rhoads (2014) found and, depending on the quality of the nut, is equivalent to three times the value of the highest quality nuts sold

on the international market (WW240 at \$7,240 per ton) and seven times lower quality whole nuts at \$3,500 per ton. It is 1.65 times the price of salted cashew kernels at US Walmart stores.

Study	HTG/Mamit	USD/HTG	Farmgate Price per kg	Ton	% of International Wholesale price
Alcidor 2006	180	40	\$1.85	\$1,850	370%
Rhoads 2014	n/a	n/a	\$1.87	\$1,870	374%
Denis 2018	294	65	\$1.86	\$1,860	372%
Socio-Dig 2020	400	90	\$1.82	\$1,820	364%
International 2020	-	-	\$.50	\$500	100%

Package and Transport

Foot, animal and moto.

Consumers

Most significant as a street food purchased by travelers at bus stations. Also purchased as a luxury treat to accompany meals, cooked with rice, mashed vegetables and in sauces (see Uses).

BREADFRUIT

Importance

Breadfruit trees (*Artocarpus altilis*) are, at 16 to 32 tons/hectare (6.7-13.4 tons/acre), one of the world's most productive food crops in Haiti and one of the most important for food security. After plantain and bananas—better thought of as crops—it is the most commonly planted tree. In the Grand Anse, fifty percent of households own at least one breadfruit tree (see ##). People in the Grand Anse are renown throughout Haiti for having marked gustatory preference for breadfruit, particularly in the form of Tonmtonm (see below), a dish distinctly associated with the Grand Anse.. In Petite Riviere de Nippes, there is an annual breadfruit festival during which local women process breadfruit into 22 different forms of porridges, cakes, breads, chips, fries, balls, pastries, and preserves.

History

The first breadfruit trees were brought to the Caribbean in 1791 by Captain Bligh of 'Mutiny on the Bounty' fame. It did not become accepted as a staple food until the middle 1800s but since has become one the most important food security crops throughout the Caribbean, not least of all Haiti.

Interventions

Breadfruit trees are reportedly included in some NGO and MARNDR tree nursery projects. TFFF is an organization that publishes online claims of massive giveaways of breadfruit trees and sponsorship of breadfruit flour factories also claims to have supply 20 schools in the region with breadfruit. When we investigated these claims in 2018 they appeared to be false. Since that time TFFF representatives have continued to insist that while some of their partners were frauds, others are not.^{xxxviii}

Uses

Breadfruit is most commonly fried and served with *fritay* (a variety of fried starches that also include plantains, dough and sweet potatoes), which is typically eaten with fried pork (*griyo*) or grilled chicken (*babeque*) and slaw composed of shredded cabbage and hot peppers (*piklez*). Also very common in the Grand Anse and Nippes is Tonmtonm, mashed breadfruit served with a sauce of kalalou mixed with spices and either fish, *sirik* (small river crabs, *Guinotia dentata*), krab (land crabs, *Cardisoma Quanhumi*), chicken or beef. Breadfruit is also used to make juice. There are claims of processing breadfruit into flour in Jeremy but when we investigated these claims in 2018 they turned out to be fraudulent (see endnotes xxxvii and xxxviii). The flower buds are eaten as a cooked vegetable or green. The leaves are fed to livestock.

Products on same Value Chain

None.

Types

In the Grand Anse, people recognize two varieties of breadfruit: *lam kochon* (Pig Breadfruit, and *kayenn* also called *misket* or *panyol* (Spanish) breadfruit. Focus group participants tended to favor *Kayenn*, explaining that It matures faster, the fruit ripens quicker after it is harvested—a desirable quality for the participants--and it makes smoother *tonmtonm*. It is physically harder than *kochon* which is soft and has a tendency to lump up when mashed to make *tonmtonm*, i.e. *kayenn* makes better, smoother *tonmtonm*. The two trees are clearly distinct varieties with different leaves, the leaf of *Kochon* being round and that of *Kayen* has fingers. A third variety of breadfruit is breadnut (*Artocarpus camansi*) not dealt with in this study is

Altitude, Soil Types, Sunlight, Time to Maturity, Longevity, Size, Culling, Use of Wood

Below 1,500 meters, full sunlight, deep, fertile soil with good drainage. Can take 3 to 10 years before it yields fruit. Lives longer than anyone respondent could assess. All said at least 100 years but with a 10 to 50 years of optimal yields. It can propagate from roots suckers. It reaches 26 meters. When it no longer yields it is culled and used it to make lumber for house construction. Produce large fruit that become sweet if allowed to ripen completely.

Planting

Breadfruit is an exception to hands-off strategy that producers favor with most trees. Focus group participants elaborated at length about the trials and techniques they have used to plant breadfruit. Unlike discussions about cacao and cashews, respondents made no reference to NGO training seminars. In at least two cases participants specifically emphasized tradition. Similarly, only in the case of breadfruit did they mention watering saplings. Participants described a traditional strategy of using cuttings (suckers) from existing breadfruit trees, planting in the rainy season, using fertilizer and compost to nourish saplings, carrying water to nurture them, and planting the saplings at the base of plantain trees to protect them and provide moisture while they are young.

Intercropping

Breadfruit is an agroforestry crop found in association with all locally grown fruit trees. It is commonly found in association with cacao, which grows in the shade of its canopy. Breadfruit is sometimes planted at the base of plantain and banana trees to provide moisture and shade while young.

Inputs

Despite more deliberate planting of breadfruit versus other fruit-bearing trees, the cultivation of breadfruit is still most adequately described as part of an agroforestry system of semi-wild exploitation. Adult trees are not fertilized, producers do not use pesticide, and they do no clean or trim the trees.

Material Technology

Some producers use a specialized harvesting tool, a pole equipped with a hook to pick the fruit (see ##, below).

Afflictions

The main problems are rats and a rot that spoils the fruit from the inside out, such that a fruit that appears perfectly good may be rotten on the inside. The producers know the latter to be a disease but they do know the source nor has MARNDR or an NGO addressed the problem. Some respondents seem to think bees cause the disease. Producers have associated the presence of the bees with the possibility they cause the rot. Another problem regarding bees is that they swarm ripened and rotting breadfruit and, if disturbed, sometimes become aggressive. Steal of breadfruit is not considered a great problem and when it occurs, as with cashews, is excused as cause by hunger and not greed.

Harvest Seasons and Harvest Strategy

Breadfruit trees sometimes yield at least some fruit all year round. But the biggest season occurs from June to August. This *gran rekolt* (big harvest) varies between communes, even those in close proximity to one another, such that one commune may have fruit while another does not. However, during this period respondents describe great quantities of breadfruit being left on the ground to rot. By September breadfruit is becoming scarce. The scarcest months are December and January. By March, breadfruit has begun to become abundant again. Breadfruit is harvested from the tree with a *gol* (pole with a hook on the end of it) and sometimes a sack held open by a wire (*rale*) into which the fruit falls. Simply allowing the fruit to fall bruises it and causes it to rot quickly. Another technique is to prepare a bed of leaves and grass for the fruit to fall onto.

Post-Harvest Processing and Storage

There are no methods for processing or storage other than cooking it in the means described in section on Uses. Also see possibilities for processing into flour at endnotes xxxvii and xxxviii.

Materials/Technologies

To make *tonmtonm* (mashed breadfruit), the fruit is peeled and boiled and then mashed in a mortar using a baseball bat-sized pestle. Alternatively, the fruit may be boiled and then peeled and mashed. To make juice, the fruit is peeled, boiled and blended with sugar. To make fried bread fruit, the raw fruit is peeled, boiled, cut into pieces and then deep fried in cooking oil. Alternatively, the pieces may be smashed between to flat pieces of wood and then fried.

Work Organizations and Sexual and Age Division of Labor

If there is planting and trimming of trees, men will typically do the work. Men and boys pick fruit and assist in transport. Women and girls then take control of the fruit, do all processing and selling. When labor is hired it is typically in the case of the Madam Sara (itinerate trader) who has purchased an entire tree or several trees and intends to harvest them and carry bulk produce to the market.

Tenure

Both men and women own breadfruit trees. Producers commonly sell the 3-month seasonal harvest or rent the tree for 1 to as long as 5 years. The price may vary from 1000 HTG to 5,000 HTG depending on the size of the tree and potential yield.

Market Venue

Found only in the informal markets. It is seldomly shipped to Port-au-Prince. Some buyers come from the city to purchase breadfruit, particularly in the Grand Anse. But more common is that, in times of scarcity, breadfruit is brought in on buses from the Leogane area.

Stakeholders

Breadfruit

Producers: Similar with other trees, crops and livestock, breadfruit trees are cultivated and harvested in the context of labor organized around the household.

Processors and traders: Predominantly women, some of whom own trees but some if not most of whom do not. They process the cashews into raw or roasted seeds or tablets and then sell the products themselves with help from children. Most are sold in the bus station in the City of Les Cayes.

Laborers

Neighbors and adult family members may be hired in exchange for part of the produce.

Urban Super Markets and Specialty Shops

Breadfruit is solely an informal market product.

NGOs: Even more than cashew, breadfruit trees are commonly included in NGO sponsored tree nurseries, something that have been common following 2016 Hurricane Matthew. According to respondents, the trees are typically given away. As mentioned in other sections, TTFE is an organization that publishes online claims of massive giveaways of breadfruit trees and sponsorship of breadfruit flour factories also claims to have supply 20 schools in the region with breadfruit. When we investigated these claims in 2018, they appeared to be false. Since that time TTFE representatives have continued to insist that while some of their partners were frauds, others are not (see endnotes xxxvii and xxxviii).

Exporters: None.

Secondary Stakeholders

Transporters (porters who own animals, trucks coming from Leogane, but most conspicuously local moto taxis). employees of the Maison, temporary agricultural laborers. The children of households, who themselves contribute labor—serving as the principal source of labor for the women—and who are beneficiaries of the value chain in the form of food and school tuition. Indeed, the most common response to labor was “husband” and then “children”.

Financial underwriters

None

Measures and Evaluation of Prices

Breadfruit is sold in *lo* (lots). Typically four fruits make up one *lo*, but when scarce a *lo* can be as few as two fruits and in the high season it may be seven fruits. The price per *lo* ranges from a low of 100 HTG (US \$1.11) for 6 fruits to 250 HTG (Us \$2.77) for 5 fruits. Translating this to value per fruit, the range is from 15 HTG (17 US cents) to 50 HTG (56 US cents) per fruit.

The prices vary in accordance with season and availability. Focus groups participants described a situation where, during peak harvest season in late summer, breadfruit rots on the ground and is left in the market. In the scarcest months of the year when there is no breadfruit available locally--the months of December and January or following Hurricane Matthew--merchants bring breadfruit in on public transport from Leogane for a sale price upon arrival of 1 dozen for 600 HTG (US \$6.67) or 56 US cents per fruit, the highest price it sells for.

The two limiting factors on breadfruit are transport and the speed with which the fruits spoil. Because breadfruit is bulky and heavy and not valuable per weight, transport represents a significant cost, both in terms of time and energy-- when merchants have to carry the fruits on their heads—and in terms of cost for public transport. To transport 1 sack of breadfruit from Leogane to Dame Marie the cost is 200 HTG (US \$2.22) to 250 HTG (US \$2.77) per sack.

Given the weight of the fruits vs. the income from selling them, it can be said that the farm gate value of breadfruit, if sold locally, is zero and that all value added from there comes in transport and time devoted selling and cooking the fruits.

This does not mean breadfruit has no local value to producers. On the contrary, the impression listening to focus group participants is that of the four products studied, breadfruit is the preferred crop. Participants described with enthusiasm its taste, how satiating it is, and the sense of security they get from it simply being available. Moreover, there is value added when breadfruit is converted to *tonmtonm* and to *fritay*.

Summary Comparison of Local vs. International Prices

There is no export of breadfruit. But there is the possibility of converting breadfruit to flour during seasonal abundance and either storing it and selling it for consumption during the offseason, sending it to Port-au-Prince for resale, or exporting it. Despite claims by several organizations that they do have bread factories in the Grand Anse, when we followed up we found these claims to be false (see endnotes xxxvii and xxxviii).

Package and Transport

Most rural transport is on foot and moto. Sacks of 5 dozen are brought from Leogane to the Grand Anse, or vice versa, for the cost of 200 HTG (US \$2.22) to 250 HTG (US \$2.77) per sack.

Capital

Producers and merchants.

Consumers

Most commonly consumed as a homecooked meal, but also an important street food sold as *tonmtonm* and *fritay* (fried pieces similar to fried potatoes; see Uses).

CASTOR BEANS

Importance

Castor bean oil is an ubiquitous household remedy and hair ointment in Haiti. It is found throughout the country, growing as a weed in gardens, around households and along roadsides. Because it is so common and hence available, it has little value as a cash crop. People will often harvest it where found without any thought to who might own it and with no fear of being accused to stealing. There are women who specialize in processing and selling oil, as seen below.

History

Castor oils has a long history in Haiti, extending to colonial era when it was used by black women as a hair ointment. It was also used as a laxative and for skin ailments. We know there was an attempt earlier on in the US occupation (1918) to produce and export it on a large scale, but which was never realized. There was a flow of exports to the US that reportedly lasted into the 1970s. We get a glimpse of these exports in USDA/FAS (1953) reports which documents 1952 exports of 4,591 short tons and 1951 exports 5,079 short tons of castor beans. Almost all in the form of bean and not processed oil. Notwithstanding, references to castor bean exports are rare. We found no other document from the Ministry of Agriculture, USAID or any development agency that mentions castor bean production or exports from Haiti. Even reports dealing specifically with agricultural exports and those dealing with essential oils exported from Haiti, there was mention of castor oil. Similarly, in the living memory of the focus group participants it is, according to the participants themselves, only recently that it has value.

Interventions

World Bank financed and GOH implemented RESEPAG recently had a program where they were buying modest quantities of castor oil from female processors. The only link we could identify between any cooperative in the region was small purchases (10 and 15 gallons) from four Les Angle area cooperatives that fall belong to the larger cooperative federation FADA. The program stopped in late 2019. One interesting feature of this projects is that focus groups participants attributed the purchases and even the training to ORE and cited large quantities of castor oil picked up by ORE and exported. ORE staff claims it had nothing to do with these purchases, that they have never had a program dealing with castor beans, that they have evaluated the feasibility of such a program and found that the local price so far exceeds the international commodity price that such an undertaking would be impractical.

Uses

Castor oil was traditionally and still is used in Haiti as a female hair product, massage oil, laxative, an ointment on wounds, to treat fever, colds, allergies, stomach ache and intestinal parasites, hemorrhoids and skin infections, and as a suave for aches and internal injuries. People in Haiti

mix the oil with crushed nutmeg and give it to newborn babies to stimulate them to pass the meconium (the baby's first feces that collected in the infant's bowels during gestation). Focus group participants also recounted that it they sear it by shocking scalding oil with water and then consume it as an edible oil. Internationally it is popular as a hair ointment, the only use of exported castor oil. One focus groups participant explained that it is used to cover the scent of cocaine smuggled inside of the barrels. Castor oil is used in industrial applications to make distil sebacic acid, which is in turn used to make plastics, lubricants, cosmetics, candles and painting material.

Products on same Value Chain

None.

Types

There are three types of castor beans: a very large mottled one, a mid-sized mottled one and a small white one. The latter small white bean is considered the most productive, yielding the most oil and therefore being the most desirable. The large one has a reputation for being more commonly associated with cases of ricin poisoning.

Altitude, Soil Types, Sunlight, Time to Maturity, Longevity, Size, Culling, Use of Wood

Castor Beans Found at altitudes up to 3,000 meters. They grow in full sunlight and in any soil with reasonable drainage. Castor beans begin producing pods within in 3 to 6 months of planting and continue yield for 4 to 5 years. The literature on the plant describes it is capable of reaching 10 meters, suggesting it could live much longer than 5 years. However, in Haiti the plant does not usually grow more than 2 to 3 meters in height and seldom lives—or is permitted to remain in the ground—for more than a few years. Castor bean is virtually maintenance free.

Despite its many uses, it is an invasive, readily available plant, considered a weed by most people in Haiti. Even producers who deliberately plant and cultivate castor beans typically cut the trees after a couple years to plant something else. The financial returns on investment of time and space in castor bean are considered opportunistic and typically only a fraction of what can be earned on food crops. The stalk/wood is useless even for firewood.

Planting

The primary means of planting castor beans in Haiti is clearly similar to the system described above where, rather than deliberately planting castor beans, producers simply permit those saplings that sprout to grow, or where they intercrop a few castor trees with corn, peanuts, and plantains.

However, unlike other tree crops, focus group participants report planting castor beans in much the same way as annual crops, spacing plants at 2 meters and putting 2 seeds to a hole. No watering is necessary, but surrounding area should be weeded, and care should be taken that animals do not eat the young saplings. That said, those who deliberately cultivate castor beans are a small minority. It is definitively a poor person's crop.

Intercropping

When deliberately cultivated, it is often planted close to the homestead and intercropped in garden with corn, plantains, and especially peanuts.

Inputs and Material Technology

None.

Afflictions

A recent and serious problem is a small black insect that lays white eggs underneath the leaves—almost certainly a reference to white flies. People in focus groups discussed them at length, albeit discussants shifted focus quickly from the destruction to castor beans—the flies prevent production of seeds—to the destruction and profit losses the flies cause to peanuts. Another problem is that livestock will eat young castor bean plants. People do not steal it. Or rather, it is not value enough to consider it stealing.

Harvest Seasons and Harvest Strategy

Castor beans produce year-round. Individual pods must be harvested at the right moment—a window of days—or they will harden and are no longer useful for making oil. They are picked by hand as the branches are typically within reach or the branch can be pulled down.

Post-Harvest Processing and Storage

If the seeds are processed and not sold in the pods—they are usually sold in a sack before they have been removed from the pods. The pods are opened with a knife, the seeds are extracted and washed and then dried in the sun. Because they are poisonous, nothing eats the seeds. According to focus group respondents, the seeds can be stored for as long as six years.

Materials/Technologies for Processing

The seeds are roasted in a pot and then pounded in a mortar or milled. The paste is then mixed with water and boiled. After having been boiled overnight, the oil is carefully scooped out of

the pot with a spoon. Detergent may be added as catalyst for separation. The oil is then filtered through fine mesh or cloth, mixed with water and the process repeated a second time.

Work Organizations and Sexual and Age Division of Labor

Men and women plant castor beans. But they are arguably the most feminized of all agricultural products in Haiti. The reason is because of the salient role that castor oil has as a female hair ointment, in the kit of the midwife, and because castor bean plants are often grown around the yard, rather than in the garden, a definitively female domain. Only in the case of cultivation of for export or mass production—something rare in Haiti today but that appears to have occurred with the World Bank sponsored RESEPAG castor oil projects (see ##)-- do we see men becoming significantly involved in the chain at the level of both production and marketing. Another factor that encourages female participation is that women can easily harvest the beans as there is no need for climbing the trees. Only women process castor oil.

Tenure

Irrelevant. Castor beans are never rented and generally do not have enough value for producers to enforce ownership.

Market Venue

Sold out of homes by women who specialize in making and selling it, in markets, and in semi-formal and formal pharmacies.

Stakeholders

Processors and traders: Predominantly women, who process the castor beans into oil.

Laborers: Family labor.

Cooperatives/associations: (see ORE below)

Urban Super Markets and Specialty Shops:

There are some processors who sell to urban markets but we identified none during the course of the research (see cacao marketing section for description of the formal market value chain).

NGOs: see ## above.

Secondary Stakeholders

Transporters (local moto taxis, trucks going to the city).

Financial underwriters and Capital

Producers and merchants.

Measures and Evaluation of Prices

Local Market

The two measure that must be understood to evaluate the value of castor oil on the local market are:

- 5 *po* (mamit) makes 1 gallon oil^{xxxix}
- 1 *po* of beans sells for 225 HTG (vs. a *mamit* which holds 3,000 ml. and sells for 200 HTG).
- 1 gallon holds 5 *ka* (but the local market does not sell by the gallon) so the cost of the bean for 1 *ka* is exactly 1 *po* =225 HTG
- The selling price of a 1 *ka* = 300 HTG, a value added of 75 HTG on 225 of 33 percent.

If we translate these value into barrels and tons so that they can be compared to international price, we get the following:

- 1 gallon = US \$16.67
- *Kaboy* = 5 gallon (25 *mamit*) = US \$83.33
- Drum 50 gallon = 10 *kaboy* (250 *mamit*) = US \$833.33
- Drum 55 gallon = 11 *kaboy* (275 *mamit*) = US \$916.66

Existing Haiti Export Market: "ORE" Measures and Prices

Focus group participants insisted that the local Haitian NGO ORE (Organization for the Rehabilitation of the Environment) purchases castor oil from female processors in the Les Angle and Tiburon area of the Department of the South. ORE denies this. The only link any cooperative in the region has to organized purchases of castor oil are small purchases (10 and 15 gallons) from four Les Angle area cooperatives that fall belong to the larger cooperative federation FADA. Nevertheless, the focus group participants insisted that they were selling entire drums of castor oil and they were specific about the quantities and prices.

- 1 *Po* of seeds sells to "ORE" for 300 HTG (US \$3.33)
- 1 gallon = US \$22
- *Kaboy* (doum jon) = 5 gallon (25 *mamit*) = US \$111
- Doum 50 gallon = 10 *kaboy* (250 *mamit*) = US \$1,111
- Doum 55 gallon = 11 *kaboy* (275 *mamit*) = US \$1,222

- 1 ton = US \$5,870

Summary Comparison of Local vs. International Prices

Producers are getting \$5,870 per ton for castor oil from the mystery “ORE” purchaser, whereas one can buy top grade castor oil (Ricin) on the international market for \$1,360 to \$2,000 (midpoint of \$1,680) per ton. Put another way, the mystery purchaser was paying producers \$1,111 for 50 gallon drum of castor oil whereas the value on the local market is US \$833.33 and the value on the international market as per Alibaba is \$257 to \$379 (midpoint of US \$318).

Measure	“ORE” Price Paid to Producers for Castor Oil	Local Haiti Market Sales Price	Cost of beans at local price	International Commodity Price for High Grade Castor Oil
1 gallon	\$22	\$17	\$11	\$7
5 gallon	\$111	\$83	\$55	\$32
50 gallon	\$1,111	\$833	\$550	\$318
55 gallon	1,122	\$917	\$605	\$350
Ton	\$5,870	\$4,405	\$2,907	\$1,680
Ratio of local price to international price	349%	262%	173%	100%

Consumers

Most often purchased by women to be used as a hair ointment, secondly for medicinal purposes.

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NOTES

ⁱ Every agricultural development proposal, every single one of them begins with two claims: 1) fantastic potential for increased production of whatever crop or animal the peasants are supposed to cultivate or care for, and 2) claim as of fantastic increases in income that will accrue to the impoverished beneficiaries if the project is funded. Many are followed with reports and press releases that feature narratives of success. It may be that not one of them, not one of the thousands of projects for poultry, rabbits, fish, cacao, coffee, jatropha... or any of the dozen has ever been true. And yet the same people, same organizations keep repeating the same falsehoods, making the interventions

and producing the same failures. And some keep getting lavishly funded to do so DAI had a series of five, back-to-back agricultural projects spanning thirty years. If we total all the projects, the costs exceed US \$600 million. No more cacao produced to day than when DAI began. Yet, they claim success, I repeat the same mantras, propose the same interventions and do it all over again.

ii Projet de formation professionnelle pour le développement rural

iii The excerpt in French,

...permettre aux populations, particulièrement les plus vulnérables, d'avoir accès équitable aux moyens de subsistance, aux ressources productives, aux emplois verts et décents pour pouvoir réduire la pauvreté sous toutes ses formes, dans un environnement socio-économique et culturel favorable et inclusif.

[OIT 2019]

iv Haitian producers are household level subsistence-oriented cultivators who typically have access to from ½ to 10 hectares of land

v The focus groups conducted during the course of this survey do not include communities in the Department of the South. In the past, cacao was also produced in the South near the city of Les Cayes and the South East around Jacmel, in recent decades has fallen to levels exporters considered insignificant. Currently the Haitian corporation Ayitika with support from the Canadian government Ayitika is planting cacao in the area of Tiburon, Chardonnière, Torbeck, Chantal, Maniche et Camp-Perrin and with support from the French government in the communes Torbeck et Chantal pour le cacao. Extracts from PNUD (2016) describing the Cacao projects in the South:

JADEN KREYÒL « Révalorisation du jardin créole sous le leadership des jeunes et des femmes », est un projet financé par les Affaires Mondiales Canada (AMC). Ce projet a démarré en mars 2019 et prendra fin en 2024 dans le département du Sud, avec une concentration des activités dans la zone tampon du Parc Macaya particulièrement dans les communes de Tiburon, Chardonnière, Torbeck, Chantal, Maniche et Camp-Perrin. Les actions visent principalement à augmenter la Valeur Ajoutée des Chaines de Valeurs cacao et café et à adapter ces systèmes de cultures aux changements climatiques. Il s'agit aussi d'une continuité des activités de Résilience Sud dans l'installation des parcelles agroforestières suivant un modèle testé par AYITIKA.

Le projet Appui aux filières durables et à l'aménagement durable des bassins versants dans le Sud, intitulé « Filyè Vèt », a reçu un accord de financement de FFEM et de l'Agence Française de Développement. Ce projet vise le renforcement des capacités organisationnelles et économiques des acteurs évoluant dans les filières cacao et vétiver, tout en contribuant à la protection des bassins versants du département du Sud. Il se déroule dans les communes de Torbeck et Chantal pour le cacao, Cavaillon, Cayes et Port-Salut pour le vétiver. Il a démarré en Janvier 2019 et prendra fin en Juin 2021.

vi

vii This is not to say they are deliberately skewing the data—albeit in some instances that might be the case^{vii}—but rather they are latching onto data that encourages investment from international donors. For example, the 20,000 tons in 1960 probably comes from a confusion with coffee exports, which did go from 20,000 tons exported in 1960 to 30,000 tons exported in 1961 and then steadily slid to some 1,000 tons in recent years.

viii Crazy Cacao Data: None of the cacao production and export data cited at the end of this paragraph is exactly the same for any two sources. For one, export and production is often conflated. But even when it is not, exports tend

to makeup 90 percent of production in most years, making it a good indicator of production. The problem, however, is that the data of seems arbitrary if not contrived or even deliberately intended to mislead. As seen in the main text, FAO data ostensibly from the same source (FAOSTAT), is different from other FAO data in that database for the same years. One set of FAO data shows exports increasing dramatically precisely at a time when USAID was massive investments in the value chain, 2007 to the present. Yet all other sources indicate that, with the sole exception of year 2007, cacao exports were plummeting during these year. If we dismiss this data, all other data tell us that between 1950 and 1980 export and production figures remained between 3,000 and 4,000 tons; between 1980 and 2005 they averaged between 4,000 and 5,000 tons. And then they made a near steady slide to the present 3,000 tons per year. In the case of data provided by Lundhal, the figures for the 1950s and 1960s are significantly less than other years. Specifically: for 1951 to 1960 see Lundahl 2002 giving both production and export data while citing unpublished development reports and IHSI as sources. Also provides data up to 1985 that approximates FAO data. FAO 2020, FAOSTAT, provides data on all the following years from 1961 to 2018.

- For 1961-1963 see FAO 2020 citing "Imputational Method"
- For 1964-1969 see FAO citing "Official Data."
- For 1970 to 1988, see World Bank
- For 1989-1990 see FAO 2020 citing "Official Data."
- For 1991-1995 see IICA 1997
- For 1997-1999: see FAO 2020 citing "Imputational Method"
- For 1996, 1998, 2000-2006 See see FAO 2020 citing "Official Data."
- For 2007-2017, see CFI 2020 (GoH Ministry of Commerce and Industry)

^{ix} USG funded projects in Haiti typically included contributing partners. For example, AOP (1981 to 1989) including contributions from the Swiss, Canadian and Belgian governments.

^x I have not but would have like to add to the main text that following the failure of these projects, then comes either the contrived data—as with the FAO data showing increasing yields—or gaslighting type claims of success, as when the US government refers in their 2011 (p11) Haiti Multi-Year Strategy to “USAID’s Hillside Agriculture Program (HAP), which had significant successes in coffee, cacao, and mango.”

When there are admissions of failure, we most often hear the blame put squarely on the people we are all supposedly trying to help: the producers. They did not learn. Yet, a much better case can be made for us, the development experts not learning. They are our projects and, as explained shortly, we keep doing the same thing. It would seem that little has changed regarding the perspectives of donors since 1991 when L. E. Harrison, a former director of USAID mission in Haiti wrote, “... the principal obstacles to progress in Haiti are cultural: a set of traditional attitudes and values...The solutions must focus on obstacles in the Haitian mind...” (Harrison 1991). What Harrison said is true but, as seen in the main text, not because the traditional attitudes and values are economically irrational. On the contrary.

^{xi} If we look at the Dominican Republic, it would seem that there is nothing inevitable about declining Haitian exports for cacao, coffee and mangoes. The Dominicans too suffered severe decline in coffee exports over the same period of times as Haiti, but in the case of cacao and mangoes exports stagnated or declined in Haiti. Meanwhile, Dominican export of these to crops skyrocketed. Dominican mango exports went from almost 0 in 1992 to 8,000 metric tons by 2005. To put that in perspective, that’s equivalent to 1.8 million boxes of mangoes, or as much or more mangoes than were being exported to the US from Haiti. Although I could locate no data, reports are that since then the quantities have continued to rise and the Dominican agricultural officials continue to gloat online about new successes.

^{xii} The process brings to mind one of Albert Einsteins most famous quotes, ‘the definition of insanity being doing the same thing over and over but expecting different results.’

^{xiii} Since the latter half of the 1800s, export purchasing houses sponsored speculators who would purchase cacao in the outlying areas of the Grand Anse and Department of the South. It is not clear how many export purchasing houses there were in the past, but there are none in the South today and the Grand Anse's sole surviving entity is Maison Wiener, which owns Selecto (successor of company Geo Weiner SA dating to 1898). Their counterpart in the North is Maison Novella (c 1920), and Rebo (1970s). What was probably already a monopsonic cartel, became an official oligopsony in 1960 then President Francois Duvalier issued a decree granting to HAMASCOSA (Haiti Manufacturing and Speciality Company), a total monopoly on cacao purchases and exports. The decree included a law covering licensing for purchasing agents (the speculators). Although HAMASCOSA was first granted to a US chocolate manufacturer, 10 years after its creation the daughter of by the time President for Life Francois Duvalier owned it. His heir, Jean-Claude Duvalier married, Michele Bennett, whose father was dominant player in the cacao business. In a 1985 report on the Haiti agricultural sector, the World Bank identified the Bennett's as one of four families that dominated the industry in Haiti, the Wieners, Madsens, and Novellas.

^{xiv} Two years into the USAID's inspector general found "serious management Problems" reflected in shortcoming such as a change in directorship four times and an invalid baseline survey (see Oxfam 2015).

^{xv} An association is an organization of producers or marketers who organize to work together, receive aid or otherwise coordinate efforts. A cooperative is different, at least in Haiti, in that it may provide the same functions as an association but at the heart of its activities is microfinance and the provision of credit to the cooperative members, a connotation that can be traced to the 1981 : Loi sur les Coopératives. Both cooperatives and associations are instrumental entities for aid projects because they provide donors and NGOs with organizations already prepared to receive funds, train members, accomplish work, provide loans to members for investment in whatever agricultural endeavor is being promoted.

^{xvi} Fass (1989:27) writes.

"The essence of the issue was that while producers could receive 60 to 75 percent of final retail prices for most commodities destined for domestic consumption, for coffee and cocoa they received somewhere in the range of 45 to 50 percent of the export price. Also, in the few instances in which government grudgingly permitted rural cooperatives to market commodities directly to foreign importers, distribution of cooperative profits could sometimes raise producer revenues by 25 percent (World Bank, 1984c: 114).

Separate from these unresolved issues, an important aspect of the coffee trade was that it involved far fewer actors than did other commodities. Even with intense competition and low profits, the volume of trade per authorized actor was sufficiently large to form a basis for sizable accumulation of wealth. In any given year, ten exporting families retained profits on 80 to 95 percent of all coffee exports. If, as the World Bank suggested, their net margins were of the order of 5 percent of the export price, each one received a 1984 income of anywhere from \$40,000 to almost \$1 million before payment of office and telephone expenses (table 1.5).²²

This income was political rent. To be an exporter a family needed to maintain agreeable political and financial relations with a president. Family A, for example, ceased to be an exporter within a year of Francois Duvalier's election. Family H found disfavor with Jean-Claude, while families N and O had brief periods of grace. In the case of family Q, it was useful to have a son-in-law as president. But outlasting all others were families B, C, D, and J. They were the country's principal exporters before, during, and after both Duvaliers. These four, and perhaps others, like K, L and P if they could withstand their direct associations with the ousted family, were major components of class power in 1986.²³"

^{xvii} That cooperatives and associations in Haiti are primarily vehicles for aid capture is not a revelation. A summary review of cooperatives and association evaluations throughout Haiti for over the past 50 years concludes that their

primary reason for existence is and always has been, not to aid producers, but to capture development funds, (see Schwartz 2019 for a summary)History of Beneficiary Selection and Targeting in Haiti. Timothy Schwartz March 27, 2019).

^{xviii} By comparison, according to UNDP representative for cacao project in the Dominican Republic, Dominican producers were getting 90 percent of the NY commodity price in 2017. Even if we go back to 1998 to 2007, the only time for which we could find raw data, Dominican cacao producers were getting 60 percent of the NY commodity price, which by comparison is 67 percent greater than their Haitian neighbors get today. The conclusion seems inescapable: Haitian cacao producers would be better off--much better off--if they could join Dominican cooperatives.

xix

Year	% of NY Price	% of Export Price
1998-1999	76.7%	90.0%
1999-2000	61.3%	77.7%
2000-2001	56.8%	70.1%
2001-2002	65.4%	73.9%
2002-2003	49.4%	54.6%
2003-2004	59.3%	67.6%
2004-2005	62.3%	71.8%
2005-2006	60.6%	68.8%
2006-2007	59.9%	64.7%

Source: Cocoa Production in the Dominican Republic: Sustainability, Challenges and Opportunities
Dr Amanda Berlan & Dr Ame Bergés Report of findings commissioned by Green & Black's October 2013.
https://www.cocoalife.org/~media/CocoaLife/News%20Articles%20PDF/SCI_cocoa_report.pdf

The average percentage of export price that went to Dominican Producers over the period 1998 to 2007 was 70 percent. The average percentage of the New York exchange price for export price that went to Dominican Producers over the period 1998 to 2007 The 61.3 percent.

According to an article quoting the UNDP representative in the DR, in 2016 Dominican producers received 90 percent of the price. See, ORIGINS 'The new Nacional': Chocolate majors urged to join Dominican Republic cocoa awakening By Oliver Nieburg 25-Jul-2016 - Last updated on 04-Aug-2016 at 07:35 GMT

<https://www.confectionerynews.com/Article/2016/07/26/Dominican-Republic-cocoa-hailed-by-UNDP-as-the-new-Nacional>

^{xx} And this reduction in proportion of NYC commodity prices comes despite all the promises of fermented cacao and satisfying specialty markets that fetch 45 percent higher prices.

^{xxi} These are the factors that constrain the choices facing rural Haitians. For those who want to get out of provincial areas but do not have the education and financial resources to be granted a visa and go legally, the options are rather bleak. They can leave their families behind and try their luck in the slums of Haiti's cities, go work as peons and scorned second class citizens in the Dominican Republic, scrape together some money and brave the ocean in hopes of reaching the Bahamas or Turks and Caicos where they can work for decent wages but under constant threat of arrestation and deportation. Or they can remain in rural Haiti where they must survive in an ecologically, economically and politically unpredictable environment characterized by frequent calamity. It is this milieu of constantly impending calamity that has to be understood because despite all the money and all the

organizations and all the international aid, the only reason most rural Haitians are alive today is because of their own efforts.

Since 1851, Haiti has been hit with at least 22 hurricanes and 29 tropical storms—one severe storm every 3.7 years. The storms periodically ravage crops and kill livestock. Droughts, some of which last a year or more, can cause even greater damage. In some areas, severe droughts strike as often as 1 in every 8 years. More recently (2010) Haiti was hit by one of the most devastating earthquakes in human history. In 2018 the Department of the South and the Grand Anse took the full brunt of one of the most devastating hurricanes in human history. And it is not only natural disasters that rural Haiti producers must contend with. Equally devastating are political instability and internecine conflict. Haiti began 216 years ago with a 13-year struggle for independence that was per capita the deadliest conflict in human history. Social upheaval and internecine warfare continued throughout the 19th century, with more than 25 wars and uprisings and 60 years of international trade embargoes. The 20th century brought an equal number of violent conflagrations and embargos, as well as two military occupations by foreign forces. No relief has come with the first 19 years of the current century and right up to the present when, as we have seen in the past year, the entire country is frequently locked down by political protesters and roadblocks. During these times, produce does not move, exports go nowhere, businesses are shuttered and people in rural areas must survive on what they can produce on their homesteads and gardens or procure in local markets.

^{xxii} For those who scrape together the money and brave the ocean to reach the Bahamas or Turks and Caicos, they can work for decent wages but under constant threat of arrestation and deportation.

^{xxiii} With regard to the over-shading of the cacao trees, one of the first questions anyone with a genuine interest in the well-being of the producers should ask is, ‘what’s over-shading the cacao trees?’ Although most researchers and project designers acknowledge that Haitian producers are engaged in agro-forestry (a diversity of managed rather than cultivated tree), in no report do they directly address just what is shading the cacao trees. Yet, all the researchers surely knew the what the most common answer would be: breadfruit, which just happens to be the most important assurance against starvation in chronically food insecure areas of Haiti such as the Grand Anse. Moreover, although every report on cacao—every single one of them--climaxes with calculations of how investments in cacao production will double and triple producer income, none offer data regarding the opportunity costs for the producers if they focus on cacao rather than some other tree crop. Yet, there is published data on these opportunity costs.

^{xxiv} Somewhat ironically, The Haitian livelihood strategy being described is perfectly captured in what USAID defines as resiliency and in recent years has decided it is promoting. Specifically,

The ability to minimize exposure to shocks and stresses through preventative measures and appropriate coping strategies to avoid permanent, negative impacts. (USAID 2017: 2)

Reinforcing resiliency has recently become a USAID priority. Similarly, as seen at the beginning of this documents, ILO’s priority with the present research shares similar goal of ‘equitable access to the means of subsistence, to productive resources, and to safe and decent work in order to reduce poverty in all its forms.’ Perhaps ironically with regard to the priority of exports, there is arguably no better description of the logical underlying rural Haitian livelihood strategies than USAID definition of resiliency. It is precisely, ‘the preventative measures and appropriate coping strategies to minimize exposure to shocks and stresses,’ that rural Haitians prioritize. Minimizing exposure to shocks and risks is deeply engrained in the culture and, in making USAID’s promotion of resiliency that much more ironic, it is this allegiance to resiliency that has for 40 years now, time and time again, vexed USAID, EU, and UN export-oriented development projects. If a project is to avoid the past pitfalls, it is critical to understand just why these strategies exist in the first place.

Note that above we are referring specifically to resiliency in terms of “absorptive capacity” as defined in USAID 2017. Enumerator Guidance: Full Model. A GUIDE FOR IMPLEMENTING A RESILIENCE MODULE, p. 2. Specifically,

Absorptive capacity: the ability to minimize exposure to shocks and stresses through preventative measures and appropriate coping strategies to avoid permanent, negative impacts.

The other connotations of resiliency as defined by USAID are,

Adaptive capacity: making proactive and informed choices about alternative livelihood strategies based on an understanding of changing conditions.

Transformative capacity: the governance mechanisms, policies/regulations, infrastructure, community networks, and formal and informal social protection mechanisms that constitute the enabling environment for systemic change.

^{xxv} The contempt Dominicans have for Haitians is something

^{xxvi} Coffees exporters have given up on bulk sale exports and have entered into the gourmet market and even into competition on both the formal and the informal local market (see Watkins, 2013 interview with Douglas Weiner). To get mangoes from producers, exporters have to go pick the mangoes up at the producers homes, eliminating the producers main cost; but for the *fournisseurs* who help coordinate and transport the mangoes, once they are in in the city even the rejects fetch more on the domestic market than exporters pay for the best mangoes (Socio-Dig 2015).

^{xxvii} Here is the specific breakdown for the alternative tree crops:

Crop	Producer Price per Unit (HTG)	Yield/tree per Year	Spacing (meters)	Output (HTG/ha)	US \$/ha
Plantain	2/kg	36	3.5x3.5	58,776	\$1,306
Banana	1.5/kg	20	2.5x2.5	48,000	\$1,067
Coconut	5/nut	35	7x7	35,714	\$794
Mango	0.8/kg	300	10x10	24,000	\$533
Avocado	0.9/kg	200	9x9	22,222	\$494
Cashew	25/kg	18	15x15	20,000	\$444
Coffee	37/kg	0.2	1.5x2.5	19,733	\$439
Cacao	4.4/kg	1	3x3	4,889	\$109

^{xxviii} Specifically, 26 focus groups participants in the cacao value chain, 36 in the breadfruit chain, 21 in cashews, and 29 in castor bean oil.

^{xxix} A common explanation one hears from educated Haitians and NGO workers alike for increasing rural poverty is land fragmentation. As the argument goes, growing population has meant that heirs to Haitian farms have found themselves with increasingly smaller parcels of land. The evidence is, of course, growing population. The population of Haiti in 1950 was 3.2 million; in 1970 it was 4.7 million; in 1990 it was 7 million; in 2010 it was 9.8 million; and today it is believed to be about 11 million. Thus, even accounting for the fact that 50% of the population is urban today--vs. only 10% in 1950--there are still twice as many people in rural areas today as there were in 1950. Yet, if we look at changing landholdings per household both nationally and regarding what we found in the 2018 HEKS EPER survey, there is no supporting evidence for the land fragmentation model. Specifically, Moral (1961) used the 1951 Haitian census to estimate that the average rural peasant land holding was 1 hectare. The 1970 census found an average of 1.4 hectare per household, an average increase in land holding of 40% and exactly what we found in the Grand Anse in 2018. The ECVH surveys of (2001) found an average of 1.8 hectares per rural household, an increase over the earlier surveys and a median of 1 hectare, exactly the same as what Moral found for 1951. The distribution of lands in the ECVH was almost identical to that seen in HEKS EPER's Grand Anse survey.

[Regarding distribution. Something is somewhat different that what we found in the HEKS EPER Grand Anse survey is the 1970 census, which reported 33 percent of households had 0 to 1 Carreaux; 26% 1 to 2 Carreaux and 14% had more than 5 Carreaux (IHS 1973 »39, in Lundahl 1979 :51)].

^{xxx} Landownership is not always as neat we would like to present the data here because in a large minority of cases—based on data from elsewhere in Haiti-- approximately 11 percent of men belong to more than one household, i.e. they have more than one wife, often a legal one and one or more common-law spouses. Nevertheless, land is almost always farmed in the context and with the aim of provisioning a specific household with food and income.

^{xxxi} The focus groups conducted during the course of this survey do not include communities in the Department of the South. In the past, cacao was also produced in the South near the city of Les Cayes and the South East around Jacmel, in recent decades has fallen to levels exporters considered insignificant. Currently the Haitian corporation Ayitika with support from the Canadian government Ayitika is planting cacao in the area of Tiburon, Chardonnière, Torbeck, Chantal, Maniche et Camp-Perrin and with support from the French government in the communes Torbeck et Chantal pour le cacao. Extracts from PNUD (2016) describing the Cacao projects in the South:

JADEN KREYÒL « Révalorisation du jardin créole sous le leadership des jeunes et des femmes », est un projet financé par les Affaires Mondiales Canada (AMC). Ce projet a démarré en mars 2019 et prendra fin en 2024 dans le département du Sud, avec une concentration des activités dans la zone tampon du Parc Macaya particulièrement dans les communes de Tiburon, Chardonnière, Torbeck, Chantal, Maniche et Camp-Perrin. Les actions visent principalement à augmenter la Valeur Ajoutée des Chaines de Valeurs cacao et café et à adapter ces systèmes de cultures aux changements climatiques. Il s'agit aussi d'une continuité des activités de Résilience Sud dans l'installation des parcelles agroforestières suivant un modèle testé par AYITIKA.

Le projet Appui aux filières durables et à l'aménagement durable des bassins versants dans le Sud, intitulé « Filyè Vèt », a reçu un accord de financement de FFEM et de l'Agence Française de Développement. Ce projet vise le renforcement des capacités organisationnelles et économiques des acteurs évoluant dans les filières cacao et vétiver, tout en contribuant à la protection des bassins versants du département du Sud. Il se déroule dans les communes de Torbeck et Chantal pour le cacao, Cavaillon, Cayes et Port-Salut pour le vétiver. Il a démarré en Janvier 2019 et prendra fin en Juin 2021.

^{xxxiii} USG funded projects in Haiti typically included contributing partners. For example, AOP (1981 to 1989) including contributions from the Swiss, Canadian and Belgian governments.

^{xxxiv} Cacao was planted during the colonial era but unlike coffee—a major colonial crop—became an important export only in the late 1800s

^{xxxv} Commentary and opinion of focus group participants regarding cacao is muddled by the influence of the many projects described in the first section of this report. Most producers have been exposed to training through cooperatives. Nevertheless, it was evident by their reference to what they did in training—vs. practice—that producers seldom use the planting techniques they were taught in NGO seminars. Most respondents came right out and said they rarely if ever planted cacao. Some explained they did not have to because it sprouted on its own. Others said they did not have the money to do it and used that as a reason to request assistance.

^{xxxvi} It is widely accepted that two export houses purchase 90 percent of all cacao exported from Haiti : Maison Novella in the North at 50 percent of the total and Maison Weiner (Geo Wiener S.A.) in the Grand Anse (see for example, AFD 2016).

^{xxxvii} “No planned initiatives are underway. However, in December 2008, a mini factory for processing cashew nut was installed in northern Haiti. Developed by the Brazilian Agricultural Research Corporation (Embrapa) in collaboration with the United Nation, the facility was donated by the Federal Government to a producers’ cooperative based in northern Haiti (ITC, 2013). The facility however, was not utilized. The specific reasons were not stated during data collection”

Regarding the TTF claims to have sent 1,000 cashews seeds to and an organization called Smallholders Farmer Alliance: TTF reported, “the cashews are thriving with a 95% germination rate!” As seen in this report, small producers in Haiti are unlikely to plant any tree that, rather they allow them to sprout on their own. It is unclear why, if they were going to plant cashews, they would need seeds from elsewhere. It is equally unlikely the farmers knew and/or reported on the germination rate of the seeds. And even if they did, germination tells us nothing about how many seeds actually became saplings and then small trees. There are other reasons to view any claims from TTF with skepticism. As seen in endnote xxxviii, we followed up TTF claims about breadfruit in 2018 and found them to be false. TTF founders Michael and Mary McClaughlin had us contact two Haiti agronomists who showed us “breadfruit factories” that have never been used. These same agronomists were working with a TTF partner who claimed online to have spent US \$2 million in donor money on breadfruit production in Haiti over a period of 13 years, something clearly not true. Note that the Smallholder Farmers Alliance listed a board of directors that includes some of the most prestigious VIPs in Haiti, including CEOs, former ministers and a former prime minister and directors of some of the largest and most prestigious non-profits in Haiti. Here is the list,

Board of Directors Smallholders Board of Directors

- Timote Georges, Co-founder and Country Director, Smallholder Farmers Alliance
- Raymond Alcide Joseph, former Haitian Ambassador to the United States
- Hugh Locke, Co-founder and President, Smallholder Farmers Alliance
- Mark Newton, Head of Regulatory and Environmental Affairs, Samsung Electronics America
- Rob Padberg, Director General, Bureau de Nutrition et Developpment (BND)
- Eliette Pierre, farmer and member of Alyans Ti Plantè-Gonaïves
- Michèle Pierre-Louis, Executive Director, FOKAL; former Prime Minister of Haiti
- Jean Ernst Saint Fleur, Officer, UNICEF
- Jean-Frédéric Salès, Principle, Cabinet Salès
- Jane Wynne, Founder, Wynne Farm Ecological Reserve

Advisors

-
- Mark Bamford
 - Pascale Dejean
 - Lionel Delatour
 - John R. Drexel IV
 - Claudine Francois

See, <http://www.haitifarmers.org/>

See also: <https://www.treesthatfeed.org/971>

xxxviii February 1st 2018 the consultant visited project of TFFF (Trees that Feed Foundation), founded and managed by Mary and Michael McLaughlin, ostensibly Jamaican born philanthropists who claim to have breadfruit factories in Jeremie, Haiti. I found no evidence of them ever having produced anything. The “factory” –a tin shed valuing less than \$1,000 and that seems to have been built in the three days before the consultant arrived. Indeed, it was brand new. Given delays in allowing us to visit and the fact that I had reached out on behalf of WFP and HEKS EPER, who were interested in supporting the project, the likely conclusion was that the “factory” had been built to impress us. The agronomist responsible for the factory admitted the factory had never been in operation and that he never had anything to do with bread fruit production. To be clear, this was a TFFF partner organization that the McLaughlin’s had chosen to represent them and to which they gave support and posted on their website. The organization name named its project, “Lam veritab sove pep la” (Breadfruit saves the people) and claims that it was Founded in 2005. Here are the original claims I found associated with their website, the ones that prompted me to visit in February 2017:

- ...completed nearly USD2 Million in construction and infrastructure projects;
- Operates/manages agriculture project with 230 farmers in Jeremie commune; farmers incorporating as cooperative
- Operates Mondrian breadfruit orchards; operates own nursery
- ZanmiSasye—Partners with Sassier (ZS) <http://www.partnerswithsassier.org/>
- Founded in 2005, provides financing, technical assistance and executive management for OZGA and other organizations and Diocese of Jeremie.
- TFFF and ZS are US based not-for-profit entities; OZGA is a Haitian based not-for-profit registered with Haitian Government
- Operating since 2005

Here is an online interview with Michael McLaughlin, the apparent founder of Trees That Feed Foundation (TFFF), Mr. McLaughlin claimed,

Me: What is the investment needed to put someone in business: costs of equipment and manpower, etcetera?

Mike: *Total costs, including shredder, dryer, grinder mill, accessories, US\$10,000. This does not include a building to house a small factory. Manpower needs, first and foremost, a local entrepreneur or leader; staffing depends on workload, generally 2 to 4 people additional.*

Me: How much they would be producing (lbs per day, for example)

Mike: *1,000 pounds per month is typical; maximum capacity guesstimate, 4,000 pounds per month;*

Me: What are the costs of making the breadfruit (for example, 'we typically buy 100 pounds for X, it cost us Y to produce, and we get Z lbs of flour)

Mike: *Hard to answer precisely but we estimate US\$0.40 to 0.60 per pound including the price of the fruit and processing costs. One issue is, it's hard to compete with free or heavily subsidized wheat flour coming from the US. (This is an example of charitable giving potentially hurting local businesses.)*

Me: How quickly it can be made.

Mike: *The limiting factor is the time of drying. A batch typically requires 4 to 8 hours of drying time.*

Me: How long does the flour last?

Mike: *Shelf life is 12 months or more.*

Me: How do you typically bag it and costs of bagging it?

Mike: *Manually, cost included above; bagging equipment for a commercial size facility would be a much larger investment.*

After I visited the factory, I wrote Mr. McLaughlin, and told him about the experience, he concluded his last email to me as such,

PS one of my favorite quotes ... "When all is said and done, a lot more is said than done ..."

I will conclude by sharing the email I wrote him telling him what we found and the one he wrote to explain the fake breadfruit factory.

From me (Timothy Schwartz) Feb 9, 2018, 7:42 AM

Mary and Mike,

I don't know you. But judging from our exchanges, I think that guys are probably sincere.

Not sure what to say about the project I visited. Could start by saying that it doesn't really exist. There is no production, nothing to do with breadfruit, just a lot of poorly planted moringa trees, an empty shed, and a lot of bla bla bla.

It was quite the embarrassment as I had brought with me country director of the Swiss NGO, HEKS-EPER.

Over the past 28 years I've seen this type of project over and over. The goal is clearly to get funding, and lastly to do anything that resembles work.

I wrote a two books about such projects. The more popular is called Travesty in Haiti. Not to promote my own work, but you may want to read it. Might help you navigate around the gatekeepers in Haiti.

Reply from Michael McLaughlin (Feb 9, 2018, 11:37 AM)

Wow.

Very sorry to hear that. Frankly I've had a bit of concern about the project but hoping for success. In fairness to all, we knew that breadfruit as a project was very much in the early planning stages, not a *fait accompli*.

Some random thoughts:

- As a charitable institution, we ourselves are very skeptical of most charitable efforts. We see lots of waste, lots of self serving activity, lots more talk than real help. We really try to be different by empowering local people.
- TTFE never promotes moringa not even as animal feed.
- I'll look for your book. Another good book is "Toxic Charity." Another "When Helping Hurts." The wrong kinds of charity are holding Haiti back.

Could we talk by phone for a few minutes?

Mike

And here are comments that, after

For more information on TTFE see,
 TREES THAT FEED FOUNDATION
 1200 Hill Road Winnetka, IL 60093
www.treesthatfeed.org
info@treesthatfeed.org

Since the above correspondence I have been in touch with the McLaughlins. They insist that they were not aware of the failings of the program described above. They are equally adamant that one Pierre-Moise does produce breadfruit flour and they purchase it from him. Because of the political problems and then Corvid-19 lockdowns we have not be able to follow-up, but here is a correspondence from Pierre-Moise:

My name is Pierre Moise LOUIS, I am the person in charge of Jeremie Breadfruit Flour and Nursery.

JBFN is a company that produces Breadfruit flour, Breadfruit and fruit trees, Breadfruit konparèts and Breadfruit breads. In this business we do cooking school for women and we have a cooperative of farmers where we buy breadfruit and seeds from them.

JBFN is an enterprise that works with Trees That Feed Foundation (TTFE) for several years. TTFE buys equipments for us, like grinder, generator, solar dryer etc. for thousands dollars. We have a strong partnership where I usually do training on breadfruit processing for other people who want help or finance from TTFE so I am the person to training for new team who wants to involve in breadfruit processing and I get paid by TTFE.

TTFE is a potential customer for us because they buy breadfruit flour, breadfruit konparèts, breadfruit trees and breadfruit porridge mix from us every month.

I know that you are interested to visit a factory that produces breadfruit flour so I would wish you come to visit JBFN and then we will be ready to answer any questions you might have. Our address is 39, Doudouche, Jeremie/Haiti.

Phone numbers: +50933870359/ +50938758909

Best regards,

Pierre Moise LOUIS, Eng. Agronomist

^{xxxix} Some detail measures for castor oil on the local market:

- 1 ka = 300 HTG (750 ml)
- 1 ka = 4 *mwatye*
- 1 *mwatye* = 75 HTG
- 1 *Demi mwatye* (glos) = 37.5 HTG
- *meziret* = 25 HTG