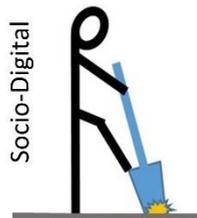


HEKS EPER

REPORT

BASELINE, VALUE CHAINS, & NOTAB INFORMATION NETWORK

Research Group



SOCIO-DIG

6/10/2018

This report focuses on rural household livelihoods in four Grand Anse communities. This report divided into three main parts and an extensive annex. In Part I, we present the data from the baseline survey. In Part II, we present summaries of the three selected value chains and graphic maps of those chains. In Part III we present an overview of the Notab selection process and results (the identification of a network of community leaders). The Annex includes useful additional data on fishing, trees, goats and, very importantly, the six focus groups pertaining to the selected value chains, all fully translated into English and with the commentary organized by topic. Throughout the report we provide textboxes relevant to the findings. These Textboxes are meant to help the reader better understand the significance of the data and the interrelationships between people both within and outside the structure of the household.



Photo 1: Family in Wo Ginode

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Executive Summary

Preface

Before presenting data and analysis, it should be understood that this report examines life in the rural Grand Anse from the perspective of resiliency and adaptation. People living in the region are adapted to 200-plus years of natural and manmade calamities. Natural calamities include droughts, floods, hurricanes, and earthquakes. Manmade calamities include warfare, political turmoil, corruption, restricted traded, protracted international embargoes, and a State that more often than not has taxed the population through heavy tariffs while making scant to no investment in infrastructure or services. In adapting to such events, farmers in the Grand Anse have clung to zero-risk, zero-investment livelihood strategies. As seen in this report, almost all critical productive technologies on which farmers in the region depend can be produced locally, such as ropes, canoes and row boats, and virtually anything thing associated with livestock. The vast majority of people depend on their own two feet for transport, they do not use imported fertilizers or pesticides for crops, they do not feed processed foods or supplements to livestock, and most of them do not even use vaccines on their animals. Those imported productive technologies critical to survival are no more complex than machetes and hoes. Water pumps and plows are for the most part irrelevant in the Grand Anse. No farmer would or does depend on them for survival.

Dependency on local or radically simplistic imported technologies is associated with a conservative resistance to change and development. NGO workers and entrepreneurs who have attempted to introduce new, profitable or seemingly life-saving innovations have most often found their projects received with indifference on the part of the farmers. However, it is precisely this near zero-risk, zero-investment approach to productive livelihood strategies that has enabled people in the region to thrive despite the two centuries of calamities described above.

Structure of the Report

The report is divided into three parts. Each part summarizes findings from one of the following research endeavors,

1. A 400-household livelihood baseline survey.
2. Investigation of three value chains: Goats, Fish and Trees.
3. A 1,012-household local leadership survey. Or more specifically, a survey that gathered the names of recommended local leaders from household heads living at evenly spaced distances throughout the HEKS-EPER activity region. These leaders were subsequently contacted and are now part of an established HEKS-EPER grass-roots leadership network.

PART I: BASELINE SURVEY

Survey

The baseline was designed as a random systematically selected 400-household survey stratified by four agro-ecological zones,

- Abriko: coastal fishing, forest fruits, annual low altitude garden, pig raising
- Fon Kochon: Plantains and bananas, fruits, ruminants, coffee, cassava, and peanuts
- Wo Voldrog: High levels of bean production, ruminants, and vegetables gardens
- Wo Ginode: Vegetables, small river fisheries, ruminants, and high production of maize

The actual number of households for which the survey team obtained acceptable surveys was 451: Abriko (109), Fon Kochon (109), Wo Ginode (105), in Voldrog (128). The survey took a total of 15 days, from the 3rd to the 18th of April. Data was compiled and reviewed at least twice weekly. Survey data and GPS data were recorded on Android Tablets in ODK platform. Maps were produced in Google Earth. GPS points were located with the app MapsMe. A total of 72 of the houses visited were empty.

Definition of the Households

The Survey used the official Haitian government and WFP definition of a household member as a person who has sleeps and shares meals in the context of a household structure. Problems with this definition that are critical to understanding resiliency and adaptation in rural Haiti is that many people split time sleeping in various households and there is a high level of are sharing of meals between households, behaviors that highlight the adaptability and flexibility of livelihood patterns and the interdependency of people in the Grand Anse. Nevertheless, household labor and production in the region is definitively organized around the concept of a household group.

Significant Findings

Demographics

- Fully 51 percent of all respondents had never been to primary school.
- The survey found no evidence of an increase in educational levels over the past 40 to 50 years.
- About 40 percent of respondents were married, another 40 percent were in common-law union, and the majority of the remainder were widowed.
- Overall, 67 percent of respondents self-identified as the household head. Men were far more likely than women to self-identify as the head, but women nevertheless tend to be de facto household heads, so much so that a household without an adult women is an anomaly.
- The survey gave us basic data for age and sex for a total 2,310 people, 1,096 females (47%) and 1,214 (53%) males, yielding an average household size 5.1.
- Fertility for most women in the rural Grand Anse appears to have declined only slightly from levels of past centuries, meaning it remains above ~5 births per mother.
- Population pyramids from the survey reflect national trends, with about half of the population 21 years of age or younger. However, a demographic anomaly found in the survey populations is the relative low numbers of children 0 to 4 years of age, something consistent across all four agro-ecological zones. This is almost certainly a consequence of a reluctance to report young children for fear of sorcery. Farmers throughout rural Haiti have an inordinate fear of witches eating their children, a risk heightened if the witch knows the name and age of a child. Hence,

many rural Haitian parents refrain from sharing information with surveyors about children, particularly young children.

- The primary means of transport for the majority of survey respondents (83%) is by foot. Pack Animal is a distant 2nd (10%), followed by motorcycle (3%)

Assets

- Regarding assets, reported ownership right before Hurricane Matthew hit in October 2016 versus the time of the survey declined significantly on all assets measured, as evinced by the five most owned assets: reported telephone ownership declined from 72 to 56 percent, mattress ownership declined from 71 to 20 percent, dining-room table ownership declined from 64 to 20 percent, radio ownership declined from 52 to 22 percent, and dish cupboard ownership declined from 32 to 7 percent.
- The average reported amount of land owned per household group was 1.38 *carreaux* (1.78 hectares), which is exactly what the Haitian government reported in 2001 as a national average for rural farms and very similar to figures from the 1950s. The suggestion is that the amount of land per household is a relatively stable over time, despite population growth and the common assumption that land fragmentation associated with inheritance has led to smaller family farms.

Crops

- It was extremely rare for a household to report not having planted at least one garden in the past 12 months and about 50% of all households in all four zones planted two or more gardens.
- While the *importance* of one crop vs. another varies between zones, the same principal 10 crops are planted in all four zones.
- With the exception of beans and corn—both cash crops—the most planted crops are hardy, drought resistant survival crops that yield continuous all year round.
- Congruent with prioritization of the subsistence-oriented strategies discussed in the preface, fertilizers and pesticides are almost unheard of. The most significant agricultural investment that farmers make is labor to prepare the soil for planting and the seeds or cuttings that get planted.

Trees

- Fruit trees are the most commonly report trees owned, with 40 percent or more of respondents reporting that at the time of Hurricane Matthew household members owned at least one of the nine most common fruit trees, mango being the most common at 68 percent.
- Wood trees are less common than fruit trees, 50 percent of respondents reporting ownership of at least one cedar tree followed distantly by Local Mahogany (26%), Fwen/Paradise Tree (24%), and Foreign Mahogany (21%).
- Because Hurricane Matthew destroyed many trees, we also asked about trees owned at the time the storm hit, thereby giving us two measures of ownership, one for before the storm and one for 16 months after. Rates of decline for most major tree types—as measured by the percentage of respondent households that had at least one of each tree type at the time of Matthew versus the time of the survey--varied between 10 to 20 percent of all sampled households.
- Charcoal is a significant source of income discussed later in the report.

- Investment in trees reflects the near zero investment and zero risk strategies seen with crops. Specifically, respondents in the area do not start nurseries and typically do not even deliberately plant seeds.
- Reported use of fertilizers and pesticides on trees are another a proxy indicator of this near zero investment strategy.

Livestock

- As with trees, the survey asked, not about the number of animals currently own, but whether the household had at least one of each type of livestock. Overall, 72 percent of respondents reported owning at least one chicken at the time of the survey, 46 percent at least on goat, 27 percent at least one pig, 22 percent at least one cow, 18 percent at least one sheep, and 9 percent at least one pack animal.
- Also similar to trees, the survey asked about ownership at the time that Hurricane Matthew struck. In this case, we included questions about the specific number of animals owned. The numbers of livestock owned at the time of Matthew were dramatically higher than at the time of the survey.
- If we only consider here only comparison of percentage of respondent households that owned at least on animal at the time of Matthew, we find that essentially everyone owned at least one chicken, 92 percent owned a goat, 61 percent a cow, 53 percent a pig, 48 percent a sheep, and 19 percent at least one pack animal.
- Whether the differences in reported numbers of livestock owned at the time of the survey vs. the time of Matthew means that some respondents are falsely reporting or that they still have not recuperated from the hurricane losses, these are the numbers that best represent expected ownership during normal times.
- Farmers investment in animals follows the same near 0-investment strategy seen with crops and trees. To feed their animals, farmers depend almost exclusively on foraged fodder or fodder left over from harvested crops. Only 13 respondents reported having purchased any prepared animal feeds in the three years prior to the survey, six were referring to food for chickens and sever were referring to food for pigs.
- Regarding vaccines for livestock, if we consider only farmers who reported owned at least one of the specified animals, either at the time of Hurricane Matthew or presently, less than 50 percent of livestock owners had vaccinated any of their animals in the three years prior to the survey.

Other Livelihood Activities

Rural households in Haiti depend on a variety of other direct and indirect income generating activities. In the survey, we found the most important of these activities to be trading (44%), charcoal (17%); and agricultural labor (53%). Rural Haitians everywhere also exhibit what anthropologists refer to as ‘occupational multiplicity’, meaning a surfeit of specialties, such as housebuilding tasks like mason, carpenter, roofer, sawyer, tailor, weaver, masseuse, prayer specialist, midwife, hunting birds, and foraging for vines, roof-thatch or grass.

Fishing

Fishing was only a significant activity in the commune of Abriko, where 25 respondents (23% of the Abriko sample) reported they fished in the sea, eight of whom (7%) fished both in the sea

and in fresh water. In none of the other communes was fishing highly significant, meaning that fishing from rivers is rare and regionally trivial source of income or food.

Credit and Borrowing

Credit is a conspicuous feature of the economy, particularly regarding trade. Respondents in the survey more commonly borrowed informally from family friends or patron, and less commonly from lending institutions or NGOs. Another important source of credit is what is sometimes called *dekolaj*: taking merchandise on credit, selling that merchandise for less than its market value, and then using the money to invest in other activities, most often some kind of trade.

Crisis

When humanitarian aid workers talk about crisis and shocks, they usually mean natural disaster such as Hurricane Matthew or the 2010 Haiti Earthquake. But internal household shocks independent of natural disaster are often as or more severe and feared than natural disaster or external shocks. In the survey, illness in the household was both the 4th most common and most feared shock (11% and 9%), a death in the household was 5th (4% and 6%), and the death of animals was the 7th most common crisis, albeit not among the most feared crisis.

PART II: VALUE CHAINS

The HEKS EPER, UMCOR and Socio-Dig team used focus groups and key informant interviews to develop value chain models for three products of critical importance in the region: trees, goats, and fish. Significant key information for each chain was recorded and the value chain was then mapped graphically using Socio-Dig's Multidimensional Ethnographic Value Chain Mapping strategy. Specifically, the data for each value chain included,

- Types of product
- Roles
- Other Stakeholders
- Production
- Technology
- Tenure & hiring
- Financial underwriters
- Source of financing
- Packaging & measurement
- Package and Transport
- Uses
- Byproducts
- Sale
- Market Venue
- Consumer
- Sexual and Age Division of Labor
- Marketing organization
- Work organization
- Afflictions
- Opportunities
- Most significant relationships
- Opportune points of intervention

The maps include both production and processing as well as identification of points most opportune for making interventions to strengthen the market chain. Understanding of the maps is also embedded in a theoretical categorization of the influencing facts Infrastructure, Social Structure, and Super structure.

- Infrastructure
 - natural environment: sea, forests, rivers, savannah, mines, foliage, fishing grounds
 - human infrastructure: demography, roads, transport, communication, technology
- Social Structure: Markets, stores, police, schools, associations, NGOs, ministries
- Super Structure: Ideas, religions, taboos, celebrations

Trees

Trees and deforestation are topics that greatly concern international conservationists and aid organizations. It is generally understood in the literature that Haiti has gone from 30 percent forested in 1940 to 2 percent today. However, several researchers have recently contested this observation arguing that, by internationally recognized standards, Haiti today has 30 percent forest cover. Whatever the case, soil loss is a severe problem throughout the country and trees not only check erosion but for rural farmers they are an important source of food, income, fuel and building materials.

The maps illustrate tree value chains in three categories: fruit, lumber and charcoal. A final breakdown of the component so the value chain can be viewed in the report. For the executive summary the most important conclusions are the opportunities available for intervention and strengthening each chain.

Fruit

- Treating insect infestation
- Tree nurseries and tree planting
- Commercialization and/or processing of fruit into juices and preserves is an economic opportunity that could be promoted.

Lumber

- Planting of lumber trees
- Preparation of lumber and sale as exotics woods

Charcoal

- Improved methods from transforming wood into charcoal can reduce losses by as much as 40 percent.
- Making briquettes from dried leaves and sugar cane baggage

Goats

Given the nutritional value and the protein scarcity in the Grand Anse, milk is probably the single greatest opportunity for intervention in the goat value chain. Exactly one focus group participant admitted to milking goats, it is overwhelmingly looked down on and eschewed with no opportunity for economic gain through selling the milk or turning it into cheese, something true not just in the Grand Anse, but throughout Haiti. Yet, nutritionally, goat milk might be the single greatest opportunity for protein capture in what is one the most nutritionally deprived populations in the Western hemisphere. Virtually all families in rural Haiti, and the Grand Anse in particular, have one to two goats at some point throughout the year.

Fish

Fisherman in along the coast of the Grand Anse catch everything from tiny fish fit for an aquarium to 500 lb Marlin, porpoises and even an occasional whale shark. Broadly speaking, they accomplish this through two categories of fishing strategy: artisanal fishing and modern deep sea fishing.

Artisanal fishman catch fish year-round, mostly juveniles or small, bony, fish not eaten on neighboring islands, and have low value on the international and urban market. Between June

and January, the more desirable migratory Skip Jacks, Sardines, and Bonito are caught, sometimes in great number.

Industrial fisherman also harvest migratory fish, but their focus includes epipelagic fish, those large predatory fish that hunt the upper levels of the deep sea – specifically Marlin, Swordfish, Dorado, Wahoo, Sailfish, Mackerel, Snapper and various species of Tuna – and that have high value on the urban market.

Opportunities

There are enormous possibilities for production and marketing of fish in Haiti: 70% of Haiti's annual estimated consumption of 20,000 MT of fish are imported. Comparison with international rate of per capita consumption, the market in Haiti could reach 100,000 MT per year, five times current consumption. HACCP certification--an international standard defining the requirements for effective control of food safety would open up exports to the Dominican Republic, creating an even greater market potential.¹

Seafood: Ice, Urban markets and Export

A significant and highly lucrative opportunity exists for selling high quality pelagic fish to Port-au-Prince supermarket, restaurants and for export overseas. The installation of more than 12 FAD on the Grand Anse coast over the past 10 years have created the opportunity. Although exact figures are not available, fishermen in the region pull in a substantial catch of these fish, many of which spoil. Currently there is insufficient ice available and no system for rapidly exporting the fish to the city. Yet, Jeremie has the infrastructure to support an ice plant and the improved road between Jeremy and Les Cayes means there that more than six buses per day and dozens of smaller vehicles could delivery fish daily to Port-au-Prince.

Fish Farming

Another significant opportunity, one that focuses more on providing the local rather than the urban market with protein rich source of fish, is freshwater fishculture. The Haitian family farm livelihood strategy seen in this report is suitable for two kinds of fishculture: pond culture using hand-dug basins and cage culture in estuaries and rivers. Both would depend on the existence of hatcheries and availability of processed fish pellets. While neither resources exist in the Grand Anse, there are at least seven hatcheries currently operating in Haiti, five of which are significantly large operations that a Grand Anse entity could draw on for expertise, fingerlings, and access to processed feed. These hatcheries are,

- Point Sonde National Fish Hatchery (an offshoot of the original FAO project)
- CH hatchery Croix-des-Bouquets
- CH hatchery near Mirebalais
- Christian Ville Hatchery in Gressier
- Operations Blessing: fish hatchery outside in Tabarre

There is also a 200,000-fry capacity hatchery under construction in the Department of the North East at Lagon aux Boeufs. It is sponsored by Food and Agriculture Organization (FAO) and will be managed by the Ministry of Agriculture.

Assistance with fishfarming startup operations can be procured through Organizations such as Farmer-to-Farmer and Aquaculture without Frontiers.

PART III: Grassroots Leadership Network for Data Collection and Engagement

As part of a strategy for continued data collection and engagement of rural farmers with innovative development interventions, Socio-Dig employed its Freq-listing and the *Notab* Leadership and Key Informant Network Strategy (NOLKINS). The objective was to identify recognized grass root leaders who will participate in an enduring network of rural community leaders that HEKS-EPER can engage as rural liaisons for community-based development initiatives and tap for information.

Specifically, Socio-Dig carried out a random systematic survey in HEKS-EPER's targeted activity areas. Points were selected in Google Earth, loaded into a map app installed on Tablet-Telephones, and then surveyors used the tablets to locate 233 GPS points whereupon they interviewed male and female heads of the 5 households closest to each point for a total of 1,008 respondents, 526 of whom were female and 482 male. The specific question asked was, 'can you recommend 5 most-trustworthy male and 5 most-trustworthy female local leaders who live within 1-hour walking distance of the house.' After cleaning the data and attempting to contact notab by telephone, Socio-Dig established a 149-notab network distributed throughout the HEKS-EPER activity zones, 126 of whom have been contacted three or more times.

Preface

Overview of Livelihood Strategies in the Grand Anse

As will be seen, households in the rural areas studied are best understood first and foremost as productive enterprises and secondly as units for preparing and sharing food. They depend on multiple production strategies, the most important of which are agriculture (crop production), silviculture (including fruit harvesting as well as production of lumber and charcoal), and livestock rearing. These productive livelihood strategies are accomplished through labor that is predominantly organized around the household. Being associated with a household and contributing to the labor activities implies sharing in the benefits of production, and the salience of the household as both a unit of both production and consumption make membership in one or more households the principal mechanism for individual social security in the Grand Anse. However, food distribution and consumption strategies as well as labor organizational strategies together with the people who carry them out should not be confused with the physical structure of the house. There are significant linkages between people in one household and those living in and participating in work regimes associated with other households that are located in the same yard or in other yards. These linkages are manifest in meal sharing. As will be seen, fully 57 percent households reported “always” sharing meals with a house not located in the same yard. The linkages are also manifest in the hiring of labor. Fully 67 percent of respondents’ households had employed at least one person in the previous year.

Trade is another critical component to livelihood strategies in the region. It is not a productive strategy, per se, but trade is important as an indirect means of storage. Rather than store or process harvests, households typically sell harvests—whether it is a seasonal bulk harvest or gradual micro harvest. Money from sale of these harvests is managed by women who then roll the proceeds over in other types of trade, thereby extending the life of the money as she meets household expenses and makes sure the family survives through lean months of the year or unforeseen but expected crises. This dependency on the market as a storage mechanism is made possible by existence of Haiti’s highly integrated rotating market system in which there are thronging open air markets held on various days throughout the region. The distribution and occurrence of market days is such that anyone living anywhere in the region is within walking distance of a market on at least 2 days per week. The markets themselves are made possible by micro-climates, something that results from the intense montane topography that characterizes the region. These micro-climates and the fact that Haiti is sub-tropical, mean that at any given time of year fruits and vegetables that may not be seasonally available in one region are available in another and traded in the market place.

People in the region also differentially participate in a thriving economy of craftsmen and specialists in everything from preparation of street foods to housebuilding to prayers to massages to midwifery to a host of informal medical professions. Fishing too is an important income earning activity examined in this study. However, fishing, crafts and services are not primary productive enterprises. Fishing is opportunistic. Crafts and preparation of street foods are

processing. As such, they are not the mainstay of the economy nor do people in the region think of them as critical to survival. Trade is arguably an exception but is probably best understood as a medium of storage or, at least, as an alternative strategy to processing and storing harvests.

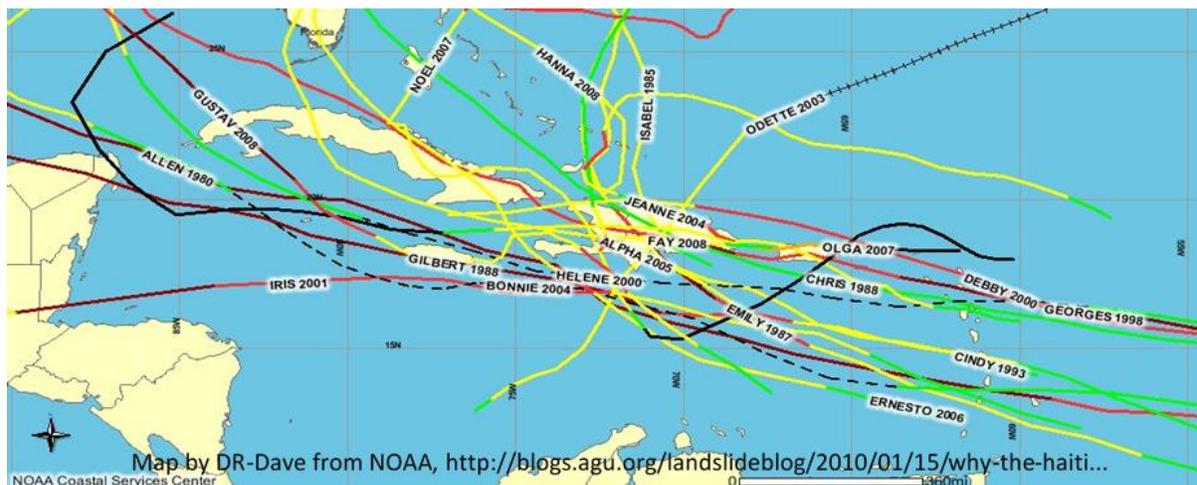
As will be seen in the report, the technologies on which people in the rural Grand Anse depend and that were examined in this report are technologically simplistic to the extreme. Farmers in the region do not use plows, nor tractors. Agricultural work is accomplished with machetes, hoes and pick axes. They do not start their own tree nurseries, but rather opportunistically encourage saplings that have sprouted on their own. There are few irrigation works. The people seldom corral or fence their livestock, rather they tether them to bushes with homemade rope. They make little to no financial investments beyond the actual cost of animals and labor for planting. The vast majority do not use fertilizers or pesticides on their crops and trees, they do not feed their animals supplements or prepared foods, and more than half have not vaccinated any particular livestock species in the past three years. Transport is primarily by foot and to a far less extent pack animal. Dugout canoes are more common than fiberglass boats and with the exception of recent introduction of FADs (fish aggregating devices) and the equipment needed for longline fishing--all introduced and subsidized by foreign aid organizations-- fishing technology is almost exactly the same as it was 200 years ago. Indeed, it arguably more resembles that of pre-pre-colonial times than the present. What is being described is not simply a consequence of not knowing or now having ever tried to introduce new technologies. The people in the rural Grand Anse are highly resistant to adopting new strategies or to risking their own time or money to invest in what might seem to development experts as obviously profitable enterprises that could lift them out of poverty.

The simplistic technology seen above and the resistance to change are often seen by outsiders as an impediment to development. However, it is precisely this conservatism and this risk avoidance that has enabled people in the region to survive, if not flourish, for some 200 years now, for they have done so despite highly aversive environmental, economic and political forces. Simplistic technology and risk aversion can be understood as a response to a unique configuration of constraints that include an unusually harsh and unpredictable natural environment characterized by severe storms and frequent drought, and not least of all the country of Haiti's historic role as rebel black republic among, until recently, officially racist nations, something complemented by frequent embargoes, internecine domestic politics subsidized by international special interests, economic and social isolation.

To be more specific, 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. Arguably more devastating than natural calamities are the *manmade disasters* that have plagued the country for more than two centuries. Haiti's colonial history was marked by 100 years of slavery, when slaves planted their own subsistence crops. This period ended with a 13-year struggle for independence that was arguably per capita the deadliest conflict in human history, about half of both the civilian and

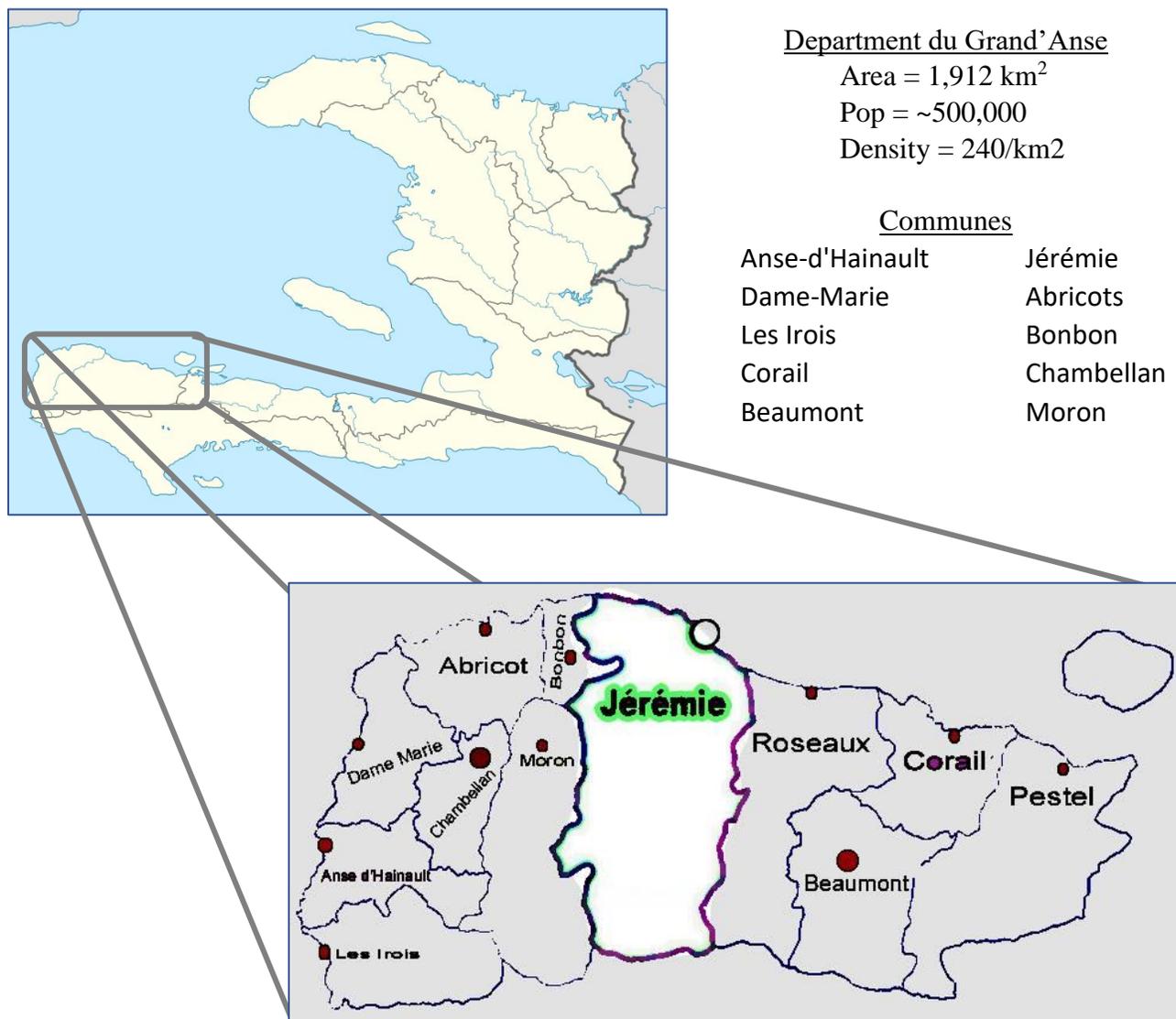
combatant populations died from violence, starvation, and, more than anything else, disease. Social upheaval and internecine warfare continued through the 19th century, with more than 25 wars and uprisings, and 60 years of international trade embargoes. The 20th century brought an equal number of violent conflagrations and embargo that have continued through the first 18 years of the current century. More recently (2010) Haiti was hit by one of the most devastating earthquakes in human history. Less than two years ago the Grand Anse took the full brunt of one of the most devastating hurricanes in human history. The upshot is that people in rural Haiti, of which the Grand Anse is part, live on the juncture of multiple geological fault-lines, smack in the middle of the Western hemispheres hurricane belt, surrounded on three sides by water and on the remaining side by a neighbor who in the living memory of some Haitians dispatched convicts, prisoners and military attaches to massacre with blades and in the space of three days 25,000 of those Haitians living on wrong side of the border. The cause of these natural disasters and human calamities is, for the purposes of understanding rural livelihood strategies in the Grand Anse, a moot point. The relevant point is that the population has had little choice but to adapt. They have done so by cultivating dependency on those forces they can control: hence the technologically simple and integrated production, processing, and marketing strategies seen above and in coming pages of this report.

Figure 1
Hurricanes Between Year 1980 and 2015



One final point in prefacing this study of livelihood strategies in the rural Grand Anse is that none of the preceding is to say that everything that impinges on the economic lives of people living in the HEKS EPER activity area has to do with production or the economy. Medical calamities are significant feature of life and people in the area engage in costly ceremonial expenses, such as funerals for which they often sell land. Nevertheless, the first and most critically important points for understanding how HEKS EPER can best work with the people in the region to better their living standards lies not in the mindset of the people, as so often assumed by development experts, so much as it lies in the material opportunities that make technological change a risky if not foolish endeavor.

Figure 2: Map of Haiti and the Grand Anse



Overview of the Report

The objective of the research was to provide HEKS-EPER with a deep understanding of rural Grand Anse livelihood strategies and resilience (the capacity to respond to household shocks such as illnesses and deaths as well as environmental catastrophes such as drought and storms), to provide a measure of behavior that could be used to evaluate the impact of subsequent interventions that HEKS EPER might make, and to lay the foundations for a strategy of engagement with the people living in HEKS EPER's Grand Anse activity areas. The research was also intended to yield a system of credible rural leaders who could be tapped for rapid data collection as well as engaged in the event of a regional disaster, as with hurricane Mathew in 2016. These tasks were accomplished through,

4. A 400 household baseline survey that would yield household and population profiles, as well as insight into planting of crops, ownership of animals, trees, engagement in other income generating activities, and resources critical during times of crisis.
5. Investigation of three value chains: Goats, Fish and Trees (fruit, lumber and charcoal). The information was gathered through focus groups with practitioners in the region and information from experts who were validated through robust statistical methods collectively known as Cultural Consensus Analysis.¹
6. Development of a network of rural leaders and key informants achieved through the Cultural Consensus techniques mentioned above that yield a Notab Leadership and Key Informant Network (NLKIM), specifically, leaders who can be contacted to gather information, and to assist in the implementation and engagement of development initiatives.

¹ "Cultural Consensus Theory is based on the premise that, "any given claim by someone who shares knowledge of a cultural-specific category or domain with others has a certain probability of being true." This premise gives way to the corollary that, the more people who share cultural knowledge of that domain and support the claim, the more likely the claim is true. This rather simple postulate has profound statistical implications. Anthropologists have used it to create algorithms that, almost as if by magic, are able to generate answer keys for true/false, fill-in-the-blank, and multiple-choice questions. This is done without ever knowing what the questions are. Similarly, the same algorithms allow us to identify most knowledgeable experts in unknown domains. For example, we can identify most knowledgeable healers, hunters, farmers, fisherman and, not least of all, beneficiaries for aid programs. Regarding aid programs, exactly who is a beneficiary, can be based on a wide variety of objectives that call for different criteria. If increased agricultural production is the objective, then we target farmers with land. If increased fishing harvests is the objective, then we target fisherman with boats (see Annex).

Layout of the Report

The report is divided into the following four parts:

PART 1: A summary of the baseline data that includes tables, charts and analysis supported with quotes from the focus groups, review of the literature, archival research and 30 years of experience designing and coordinating research into rural subsistence strategies throughout Haiti (including in the Grand Anse).

PART II: A discussion of the selected value chains (Fishing, Trees, and Goats) and a presentation of the value chain maps, all of which make significantly more sense after the reader is familiar with the baseline data and explain livelihood strategies

PART III: A description of the Notab Leadership and Key Informant Network (NLKIM) survey established so that that HEKS EPER has a platform for engaging the local population in the activity areas.

PART IV: Six focus groups, all fully transcribed into English and organized by topic. The subjects of the focus groups were as follows: Male fisherman (1 focus group), female traders in fish (1 focus group), male and females who use and cultivate trees (2 focus groups), males and females who rear goats (2 focus groups)

PART 1 BASELINE SURVEY

1. Survey Design

The Baseline survey design was a systematic random cluster sample stratified by agro-ecological criteria into four different zones .

- Abriko (Abricot): coastal fishing, forest fruits, annual low altitude garden, pig raising, and tourism.
- Fon Kochon: (Fon Kochon/Gran Vensan): Plantains and bananas, fruits, small animals, coffee, cassava, peanuts and tourism (Makaya)
- Wo Voldrog: (Wo Voldrog : Castiyon Despagne): High levels of bean production, small animals, and vegetables gardens.
- Wo Ginode (Wo Ginode, Daye, Pinket): Vegetables, small river fisheries, livestock rearing, and high production of maize.



Figure 2.1: The random systematically selected sample point in Abriko, after they had been adjusted for presence of houses.

The Socio-Dig survey coordinator used a grid laid over a map of each of the four zones to systematically select points distributed across the target regions. An example can be seen in Figure 2.1 (above right). These points were selected in Google Earth. the coordinator then zoomed in until individual houses could be visually identified, whereupon waypoint markers were moved to the nearest identifiable households.

The survey teams located the points using the GPS app MapsMe and interviewed the household head or spouse of household head of the six closest occupied houses. In this way, a cluster was defined as the six households closest to the selected GPS points.

The target was 100 questionnaires per zone for a total of 400 questionnaires. To account for the highly dispersed settlement pattern and households that were abandoned after the 2016 Hurricane Matthew (the Google aerial photos appear to sometimes have been take before 2016), we included as many as 40 sample points in each of the four zones. The teams actually visited and interviewed 453 household heads or spouse of heads. One questionnaire was thrown out because it was not head of household or spouse who was respondent, and a 2nd was thrown out because no GPS points were recorded. This left 451 completed questionnaires: 109 for Abriko, 109 for Fon Kochon, 105 for Wo Ginode, and 128 in Voldrog.

Table 1.1: Target vs Achieved		
Row Labels	Targeted	Count of Zone
Abriko	100	109
Fon Kochon	100	109
Wo Ginode	100	105
Voldrog	100	128
Total	400	451

Maps of Sampled and Selected Points

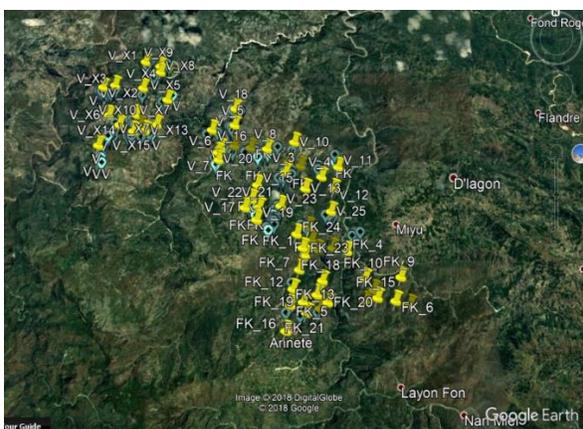
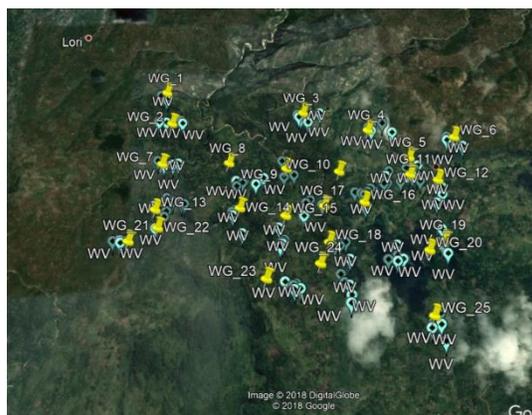
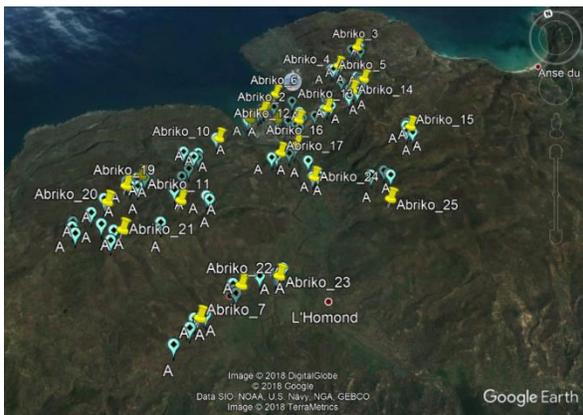
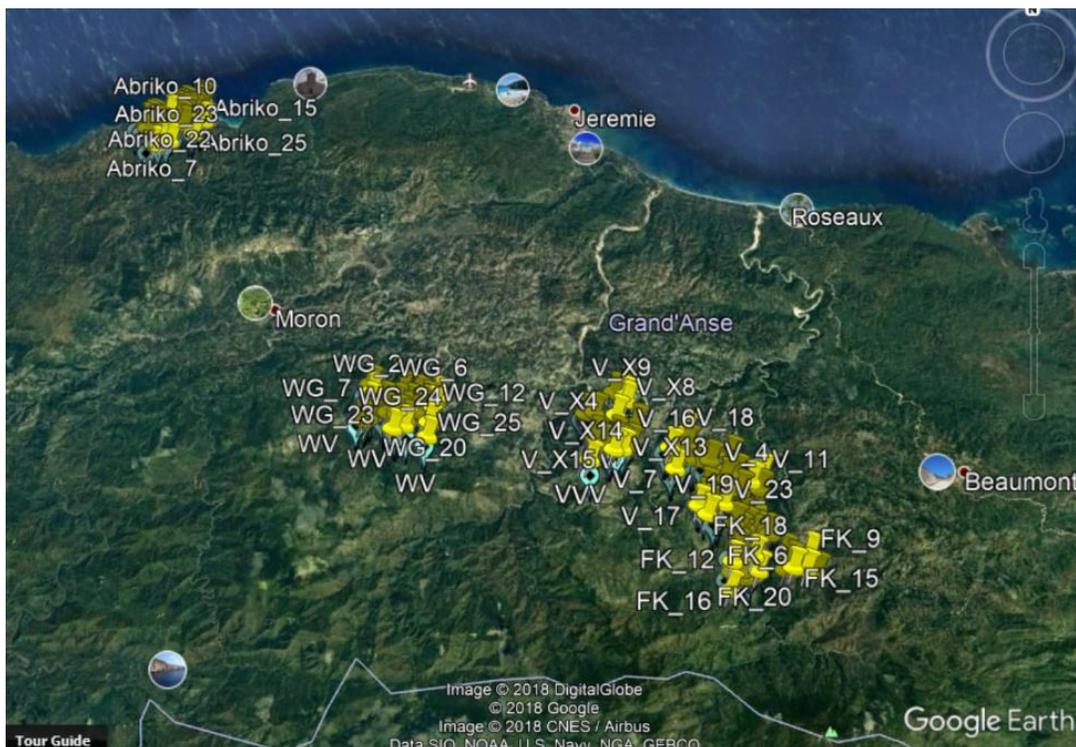


Figure 1.2: Above left. Close-up of Abriko sample target points in yellow and the location for successfully sampled households are in blue

Figure 1.3: Above. Wo Ginode (mis-labeled in this picture as WV)

Figure 1.4: Left. Wo Voldrog and Fon Kochon, which butted up to one another.

Figure 1.5: Below. All four sampled zones.



2. The Survey Process

Team Composition and Transport

The six Surveyors—three men and three women-- traveled on motorcycle and, in the more remote mountainous areas, by foot. They worked in male-female pairs, seeking a selected GPS point together and, where possible, interviewing the six households closest to each selected GPS point.

Definition and Selection of Households

The surveyors, overseen by the survey supervisor, were instructed to define a household according to the official WFP and Haitian government definition of a single residential unit in which people slept and shared meals.

A household is defined as a group of people, with or without blood relation, who have been living together in the same lodging (under the same roof) for at least six months— or who have the intention of remaining in the household--and who share food and recognize the authority of the same household head (man or woman).ⁱ

Thus, a resident was someone who had been eating and sleeping in the physical house for at least the past six months, or who had the intention of remaining for at least the forthcoming six months. “Menaj”, “Kay” and “fanmi” are Kreyol synonyms that capture this definition and helped the surveyors explain to the respondents what was meant by being a member of the household. To this definition, we added that they had been sleeping and sharing meals within the context of the household ‘more than elsewhere’ because many people in rural Haiti actually split time between multiple households, sometimes one or more located in rural areas and another or others in the town or city. To test for the applicability of true residence by definition of meal sharing, the survey instrument included a follow-up question for individuals claiming that multiple residences were living in a single household. Specifically, the respondent was asked about meal sharing. What we found was that for the 30 out of 451 respondents claiming that more than 1 residence was living in the house (7% of the sample), fully 22 of those respondents subsequently said that the different residences “always” shared meals, thereby verifying that they were not, by the survey definition, distinct residences. Only three of the 30 respondents reported that the multiple residences “never” shared meals (see Table 2.1). In these cases the respondent’s residence group was treated as a single household.

Families/Households Living in Respondent House		Shares Meals		
“Families” Claimed to be living in House	Respondents	Always	Sometimes	Never
One	421	0	0	0
Two	24	18	3	3
Three	4	3	1	0
Six	2	1	1	0
Total	451	22	5	3

Settlement Patterns Multiple Houses in the Same Yard

As touched on in the description of the survey process and as typical elsewhere in rural Haiti, settlement patterns in all four zones were highly dispersed. This is evident from the sample selection maps seen earlier. Households tend to cluster but only in a sporadic fashion. Proximity is related to kinship but not exclusively, a point highlighted in the discussion of the yard, below. To account for the fact that in many cases there were multiple residences in the same yard, the surveyors were instructed to interview only one house per yard. The surveyor was to ask about the number of occupied households in the yard. In the cases where there was more than one occupied house the surveyor either selected the house of the person they were speaking to (i.e. about the occupancy of the households) or, in the event they were speaking to someone who was not a resident of one of the occupied households, they randomly choose one of the occupied households and sought out the household head or spouse of the head. In 178 cases, there were in fact two or more households in the yard. In 151 of those cases the other houses were occupied (see Table 2.2). Highlighting the point made above about kinship and the yard, 70 percent of those in the other houses were direct family of the respondent, 21 percent were in-laws, and only 8 percent were non-family.

Number of houses in the Lakou/Yard	Number of respondents reporting	Other houses in the yard that are occupied	Ratio Houses Occupied/Total Houses
One	372	372	100%
Two	130	112	86%
Three	27	21	78%
Four	16	13	81%
Five	5	5	100%
TOTAL	550	151	95%

Relationship	2nd household in Lakou (n=57)	3rd household in Lakou (n=10)	4th household in Lakou (n=4)	Overall (N=71)
Respondent's Family	68%	80%	75%	70%
In Laws	21%	20%	25%	21%
Not Family	11%	0%	0%	8%
Total	100%	100%	100%	100%

TEXTBOX 2.1: DISPERSED SETTLEMENT PATTERNS

Settlement patterns in rural Haiti—where a great proportion of the population is extremely impoverishedⁱⁱ—are highly dispersed. Technically, they fall into a category of clumped to random dispersion (see Figures T2.1.1 – T2.1.5 below). Dispersed settlement patterns make it physically difficult to reach many of these areas or to identify leaders that represent remote regions. The notab strategy being deployed by Socio-Dig and HEKS-EPER—discussed in Part III of this report—is meant to overcome this problem.

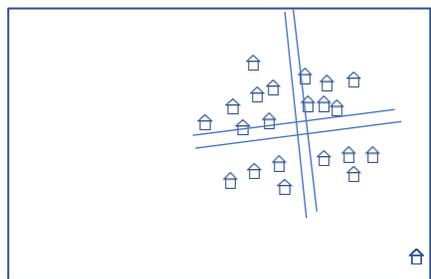


Figure T2.1.1: Nucleated

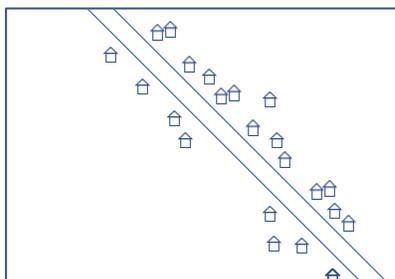


Figure T2.1.2: Linear

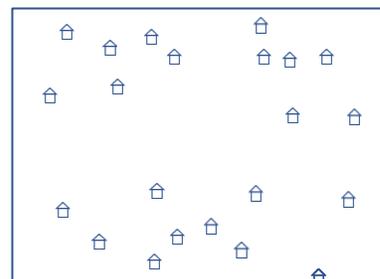


Figure T2.1.3: Random dispersion

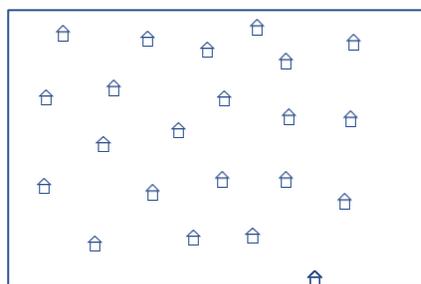


Figure T2.1.4: Uniform dispersion

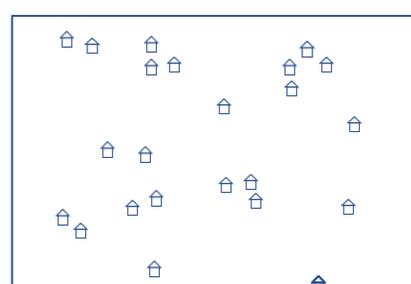


Figure T2.1.5: Clumped dispersion

**Figure T2.1.6:
Household
dispersion pattern
in Wo Ginode**



An oversight in the questionnaire design and point of discussion critical to achieving a deep understanding of livelihood strategies in the target area, was that we did not ask about sharing between different houses in the yard. The fact is that in many cases, similar to the sharing of meals within residences, physically separate households in fact function in terms of meal sharing as a single household entity. Indicative of this meal sharing, often several households occupying the same yard will have only one kitchen (which are never located inside of a particular household, but rather occupy their own independent structure). This observation

points up a problem with the entire definition of household. Official WFP and Haitian government definition for household is, as seen, a structure in which people who share meals sleep. But the problem with this approach—common everywhere among Western researchers—is that it confounds physical proximity with behavior. Indeed, far worse, as it makes the mundane fact of where one lays down to sleep more important than the behavior they exhibit while awake. Specifically, if the people sleeping in one structure are sharing meals with people sleeping 30 feet away in another structure, should we not consider them functionally as residents of the same household? The point is even more poignant when we note the survey finding that of all households, 57 percent “always” share meals with people living in households more distant than the confines of the yard (see Figure 2.2). The importance of this point is critical to any individual or entity that hopes to make effective interventions in rural Haiti: 50 years of development interventions and food security strategies as well as research, may have gotten it wrong in the sense that they have been depending on a flawed definition of the basic beneficiary unit and unit of analysis: the household. The importance of this point should become clearer as we move through the report (also see Text Box 2.2 on the following page).

Figure 2.1: Sends food to other house in neighborhood (N=451)

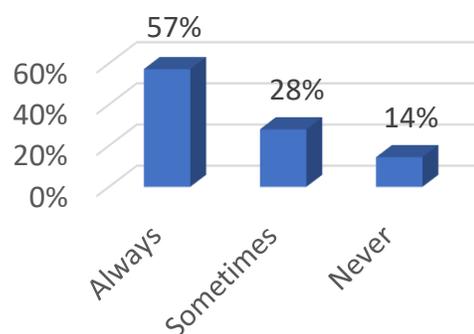


Figure 2.2: Food Sharing (N= 451)

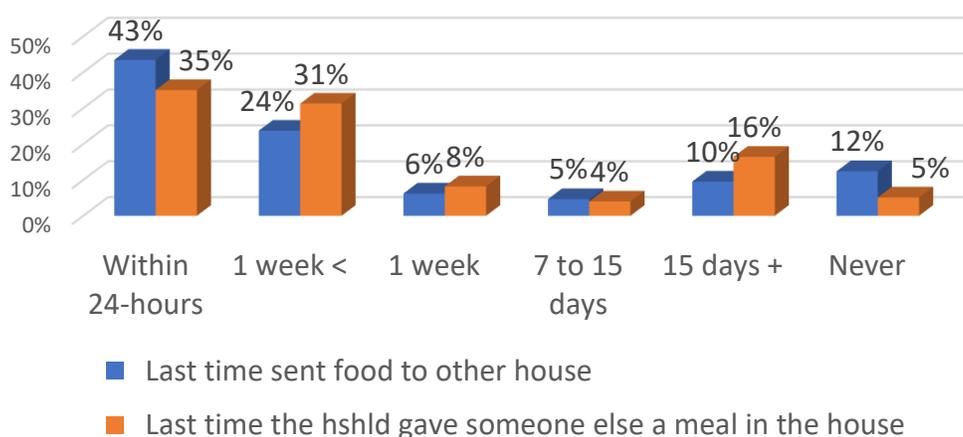
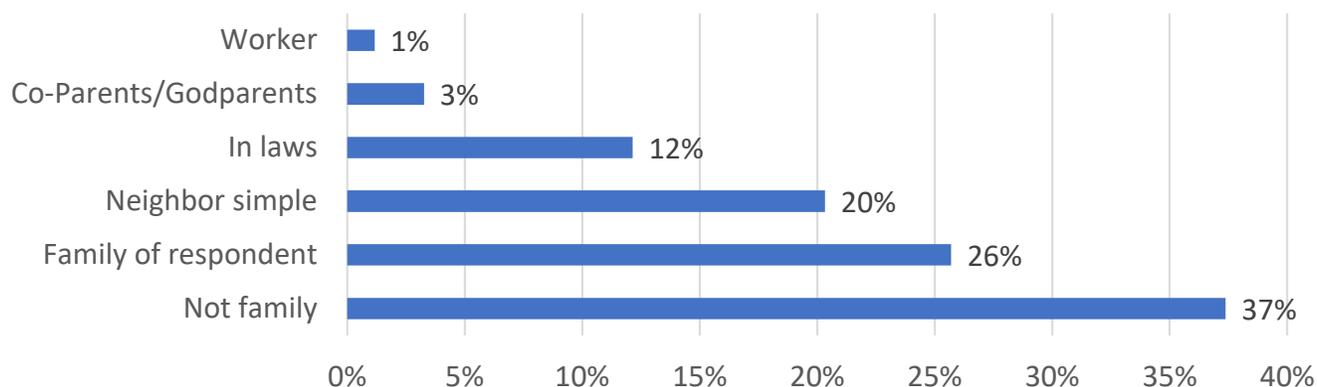


Figure 2.3: Relation to the Person/s Who Received Food (n=428)



TEXTBOX 2.2: CONFUSING THE HOUSE WITH THE PEOPLE WHO LIVE IN IT

A major problem with a definition of “household” is that the physical structure of the house is often conflated with the people living in it. People in rural Haiti sleep in a house, they orchestrate their labor activities and share food around the organizational axis of the household, and there is an informal but very real contract between a man and a woman in setting up a household and sharing responsibilities- a contract that serves as the foundation for household organization.



The man must provide a house for a woman, then he must continue to provide money or work gardens and care for livestock; the woman must provide children, she manages the household, directs the labor activities of the children, and as will be examined again later in this report, she processes and sells the products of the household in the market and engages in other marketing activities that will extend the buying power of the money. In this way the actual house can be thought of as the material focal point in a productive enterprise staffed by people, i.e. the family and other members of the household. But the “household”—in terms of a group of people engaged in cooperative consumption and/or production—must not be confused with the physical structure of a house for there are sometimes, if not often, people who both contribute to the productive enterprises of the household and share in consumption of its products but who do not sleep in the house.

Call Backs and Empty Households

The surveyors found a large number of houses previously occupied had been abandoned or were found empty. For all four agro-ecological zones, 72 houses visited were empty. Thirty (30) of those were people who had simply closed the house and gone to Port-au-Prince to work or exploit other opportunities. The remainder were people who moved to Jeremy or other rural areas. Approximately 10 GPS points had no households at all. This tendency to leave the area in search of opportunity is also evident in the population pyramids in seen in a subsequent section, where the reader can see that a large number of economically active adults are simply absent. For those households that were currently occupied, only 12 could not be interviewed because no household head could be located or conveniently interviewed at another time.

Equipment and Software

Survey data and GPS data were recorded on Samsung Android Tablets. Maps were produced in Google Earth. GPS points were located with the app MapsMe. Questionnaires were programmed in ODK platform. Data was downloaded and analyzed in Microsoft Excel and SPSS. This report is written in Microsoft Word.

Data Quality Control

Data quality standards were assured through a strategy of paying enumerators per questionnaire and close supervision. We tried to upload data as frequently as possible. Surveyors were often out of data signal range, nevertheless data was reviewed at least twice per week. To control for hasty work, surveyors were contractually limited to six surveys per day. The rugged terrain and challenging weather conditions meant that, more often than not, surveyors could not complete six surveys per day. We had no issues regarding inconsistent or questionable data.

Timing of Survey

The survey took a total of 15 days, from 3rd of April until the 18th.



Photo 2.1: Three generations of males in Wo Ginode



Photo 2.2: Mother, father and two daughters in Abriko

3. Profile of Respondents

Sex and Age of Respondents

Only the household head or the spouse of the household head was interviewed: 57 percent (256) were female and 43 percent (195) were male (see Figure 3.1, right). They ranged in age from 18 to 96 years, with an average age of 52 years, 51 years-of-age for women and 53 for men (see Figure 3.2, below).

Figure 3.1: Sex of Respondents (N=451)

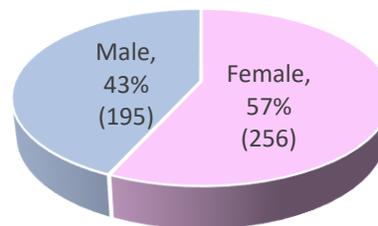
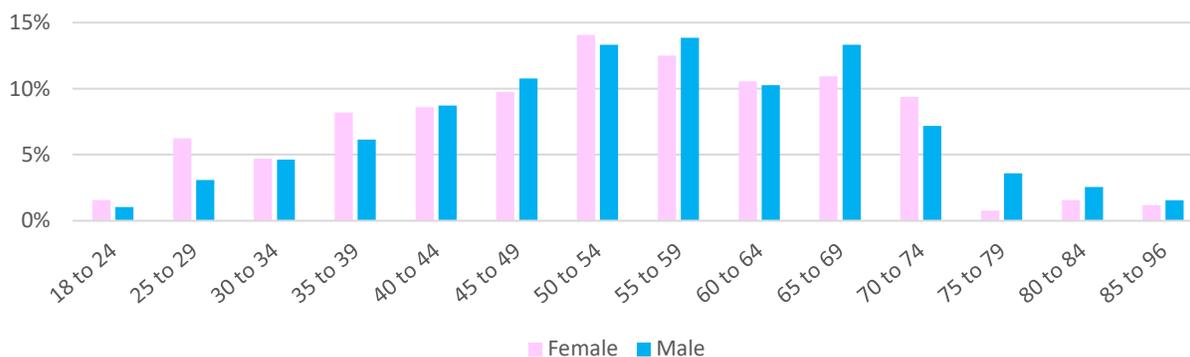


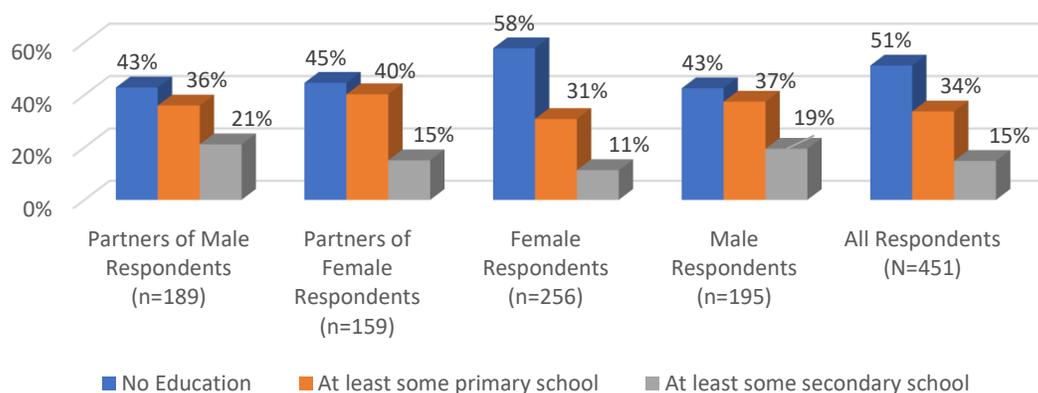
Figure 3.2: Age Groups for Respondents



Educationⁱⁱⁱ

Fully 51 percent of all respondents had no Education at all (see Figure 3.2, below). Male respondents were slightly more educated than female respondents, 43 percent reporting they had never gone to school vs. 58 percent of female respondents reporting they had never gone to school. Similarly, 19 percent of male respondents had at least some secondary school versus 11 percent of female respondents. No respondents or partners of respondents had any University education.

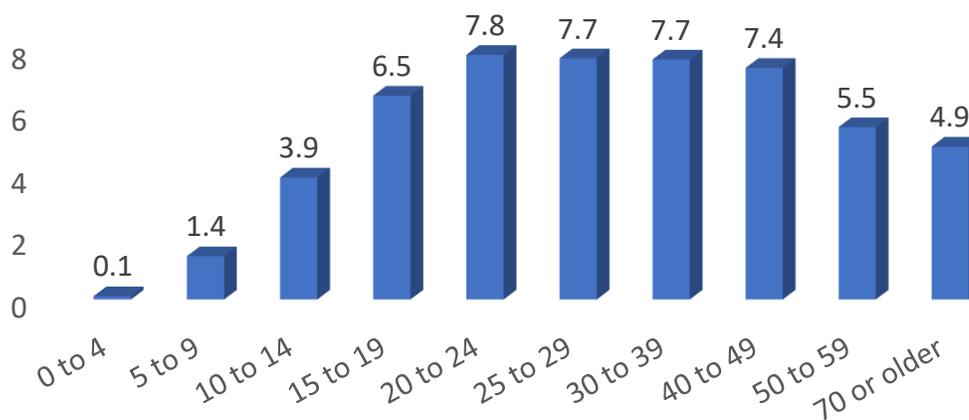
Figure 3.3: Educational Level



Lack of Changing Education Levels

Against all expectations, we found little evidence that there has been an increase in educational levels over the past 40 to 50 years. The educational level of 40 to 49 year-olds is, at 7.4 grade-years of education, only slightly less than that of people in the 20 to 24 year old age group at 7.8 grade-years of education. Those in the 15 to 19 year-old age had an average of 6.5 grade-years of school, something consistent with their ages, i.e. we can expect the averages for that age cohort to reach ~7.8 grade-years of schooling in the upcoming 5 years. The same is true for all the younger age groups, their grade level suggest that as adults their age cohorts are unlikely to exceed 7.8 grade-years of education. Using the age groups to retroject, a significant increase in education appears to have occurred rather suddenly some 50 to 60 years in the past, evident in the age cohort 50 to 59 years of age, which has an average educational level of 5.5 grade-years of schooling and the 70 plus age cohort, at 4.9 years of schooling, both illustrating a significant break from the 7.4 grade-years of school in the 40 to 49 year-old age cohort that immediately preceded them. An important consideration here is that we know from data elsewhere in rural Haiti and we can infer anecdotally, that there is a strong tendency for those who are more educated to migrate out of the region, leaving behind those with less education. But what we are seeing in Figure 3.4 does not reflect this trend in the sense that there is no evidence that rural children overall have or will have any more education than the adult age cohorts that preceded them, i.e. education appears to have little to nothing to do with whether or not the child subsequently moves to Jeremie, Port-au-Prince or elsewhere.

Figure 3.4: Average Grade-Year Finished Per Age Group
(n = 2,195; missing = 16)



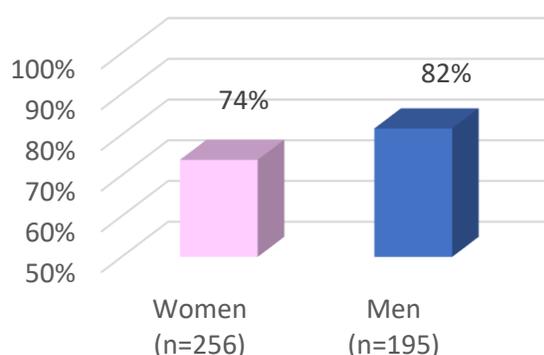
Marital Status

Thirty-nine percent (39%) of all respondents reported being legal married; 38 percent reported being in common-law union; 17 percent were widowers (see Table 3.1, below). Only a total of 7 percent reported being single, divorced or other. Significant gender differences are evident with regard to the frequency of common-law union. More men are in common-law union than women, 44 percent for men vs. 33 percent for women. This is most likely linked to male polygyny. In rural Haiti, it is socially acceptable for men to engage in unions with more than one woman. The men may build houses and raise children with the women, all being referred to as the man's "madam" wife. It is not acceptable for women to simultaneously engage in multiple unions. This latter point together with the fact that men tend to be an average of 4 years older than their wives and that men tend to die at lower ages than women also helps explain the higher number of female widows (23% for women vs. only 9% for men).

Interpreting the significance of different types of conjugal union, it is important to clarify, that marriage has traditionally had a significance to rural Haitians different than middle and upper-class Haitians or people living in Judeo-Christian dominated societies outside of the Caribbean basin, or even non-African American ethnic groups within the Caribbean. In the past, rural Haiti men and women tended to enter into common-law union and marry only after their children had reached adulthood. This trend appears linked to the maturation of the household, polygyny of older males, and inheritance rights (for those interested see Schwartz 2009). However, with the widespread incursion of evangelism in Haiti, which increased significantly in the 1960s, and concurrent pressure on new converts to legally marry, the average age at marriage has declined. What this means for the structure of the household is not clear. Analytically, however, what is most relevant to understanding households in the rural Grand Anse, is whether men or women in fact have a live-in spouse. A widow/er, for example, can be in a common-law union with new spouse. Similarly, the legal spouse of a married individual may not be in the household or even the region, but rather living in Jeremie, Port-au-Prince or even overseas. With this in mind, we also asked respondents if they in fact had a spouse living in the household with them. What we found is that 74 percent of female respondents report having a male partner living with them

Marital Status	Female (n=256)	Male (n=195)	TOTAL (n=451)
Married	38%	40%	39%
Common-Law	33%	44%	38%
Widowed	23%	9%	17%
Single	4%	6%	5%
Other	1%	1%	1%
Divorced	1%	1%	1%
Total	100%	100%	100%

Figure 3.5: Household Head has Spouse Living in Household



vs. 82 percent of male respondents. Put another way, 23 percent of all the households in the sample have single heads: 15 percent of these are female and 8 percent are male. For those legally married, three had a live-in spouse that was not their legal partner, two men and one women.^{iv}

Gender, Household Headship and Sex of Respondent

Determining headship was, as seen in the previous discussions, dependent on self-reporting. Overall, 67 percent of respondents self-identified as the household head. Men were far more likely than women to self-identify as the head: fully 97 percent of the men interviewed reported themselves as the head, whilst only 44 percent of women self-identified as the household head. Moreover, as seen in Figure 3.6 (below), 26 percent of households for which the respondent was female had no adult male head or spouse vs. only 18 percent of those for which the respondent was male, meaning that, as can be seen in Figure 3.7 (below right), in only 31 percent of cases where female respondent had a spouse, did she identify herself as the household head.

Respondent	Head of House	Spouse Head of House
Female	44%	56%
Male	97%	3%
Total	67%	33%

Figure 3.6: Single Female Headed Hshld vs. Single Male Headed Housholds

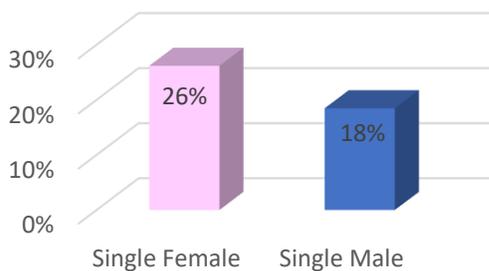


Figure 3.7: Self-Reporting Hshld Hdship, Male vs Female, Spouse in House vs No Spouse

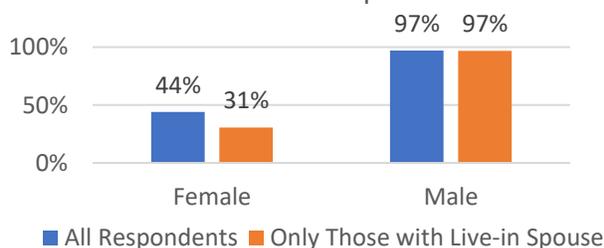
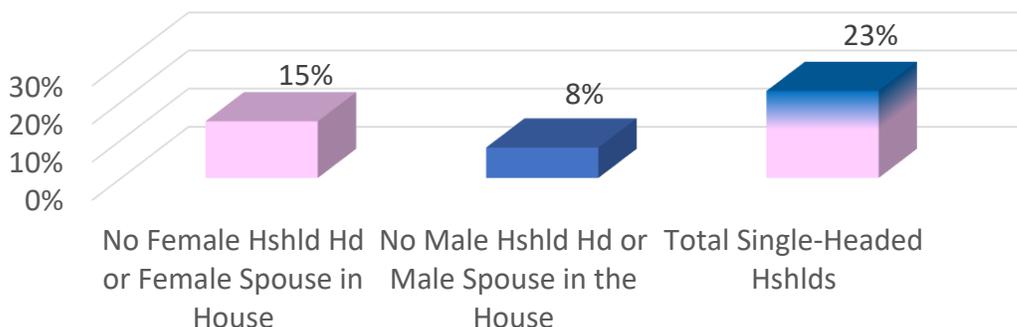


Figure 3.8: True Proportion of Single Headed Hshld (N=451)



De Facto Female Headed Households and the Indispensability of Women in Rural Households

Having said all the above, a word of caution is in order. Although women may be far more likely than men to identify their spouse as the household head, it should be understood that in rural Haiti women tend to be de facto household head. They manage the affairs of the household, the labor activities of children and even discipline the children. Men on the other hand focus on outside activities, gardens, fishing, charcoal production, and migratory labor. Indeed, it is questionable whether a household without a woman should be considered a functioning household at all. Most households with single adult male heads appear to be temporary anomalies. While there are 36 households with no male household head or male spouse of head, only 17 of them have any children under 18 years of age, only 5 had a female under 18 years of age, and 19 had no females at all. The point is that half of the single-male headed households are composed of only adults and more than half are also composed of only male members. Moreover, the average household size for single male-headed households is 3.5 compared to 5.1 for the total sample and 4.2 for single female-headed households. Fifty-three (53) of the 67 households that have no male head or male spouse of head, have children under 18 years of age.

TEXTBOX 3.1: RURAL HOUSEHOLD LABOR DEMANDS

Sexual division of labor is also a conspicuous organizational feature of rural Haitian households. As seen in a previous Textbox, women are thought of as the managers of households if not the household heads. They direct the labor activities of children, are the primary disciplinarians and, in the absence of men, they care for livestock and tend gardens. To fully appreciate what this means, one has to understand the extent of these labor demands. Table T3.1 summarizes average labor needs in hours per day, and days per week for rural Haitian households. To be a viable productive unit that meets the hygiene and consumption demands of its members, the typical rural household must invest 74.2 to 155.4 hours per week in person-hours of labor.

Table T3.1: Average daily labor requirements for principal household tasks

Task	Frequency per day	Days per week	Avg # hours per	Avg. time	
				Min	Max
Morning house cleaning	1	6	1–2	6.0	12.0
Weekly house cleaning	1	1	3–6	3.0	6.0
Water carrying	1–4	7	1.2	8.4	33.6
Morning meal	1	7	1–2	7.0	14.0
Afternoon meal	1	7	2–4	14.0	28.0
Gathering fire wood	1	7	1–3	7.0	21.0
Laundry	1	2	6–12	12.0	24.0
Walk to	1	3.5	2.5	8.8	8.8
Trip to market	1	2	4	8.0	8.0
Total	—	—	—	74.2	155.4

Source: Schwartz 2009

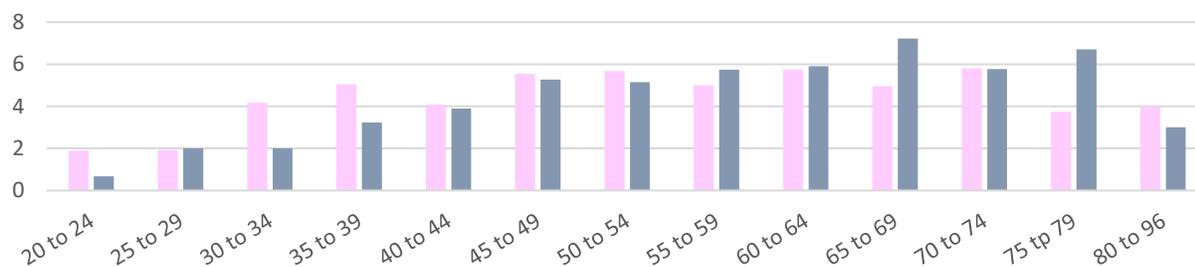
4. Population Profile

The survey gave us basic data for age and sex for a total 2,310 people, 1,096 females (47%) and 1,214 (53%) males, yielding an average household size 5.1. This is not a great deal of data given the total size of the region. However, with this data we are able to create population pyramids (presented on the following pages). The consistency of these population pyramids from one zone to the next (see Figure 4.6 on a subsequent page), is such that we can be confident that they do in fact reflect the true population structure for the communities. Thus, although we do not have data on remittances and whereabouts of family members, we can draw on the shape of the pyramids and, together with what we know anecdotally about movements and opportunities open to people in the Grand Anse and elsewhere in Haiti, make the following inferences,

- a) The population is very young, indicating high fertility, something corroborated by the number of living children per respondent seen in Figure 4.1 (below).
- b) There are large numbers of children that leave the region.
- c) There is a proportionately large numbers of absentee adults in the age ranges 30 to 60 years of age (almost certainly because they are away working in Port-au-Prince, have migrated to the Dominican Republic, Chile, elsewhere in the Caribbean or the US and Canada).
- d) The balanced sex ratios—unusual in Haiti where rural sex ratios favor females by as much as 10 to 20 percent—suggest relatively equal migration of adult males and females.

One seeming mystery is the relative scarcity of children 0 to 4 years of age. This is almost certainly a consequence of a reluctance to report young children for fear of sorcery. Farmers throughout rural Haiti have an inordinate fear of witches eating their children, a risk heightened if the witch knows the name and age of a child. Hence, many rural Haitian parents refrain from sharing information with surveyors about children, particularly young children.

Figure 4.1: Average Number of Living Children for Both Male and Female Respondents (N=451)



Note that the averages for total number of children born illustrated in Figure 4.6, above, do not include children who have died and therefore cannot be used as direct proxies for age-specific or completed fertility rates. Nor, because of declining rates of infant mortality, can we say that fertility rates have remained identical to those of the past. Nevertheless, they demonstrate that birth rates in rural Grand Anse are considerably in excess of the 3 children per woman average completed fertility for Haiti as a whole in 2015, and even without considering deceased children, they are close to the 6.2 pre-1960 birth rate per mother. In short, we can say with confidence that the fertility rate among the survey respondents has changed little.

Figure 4.2: Population Pyramid for the HEKS-EPER Grand Anse Survey Population

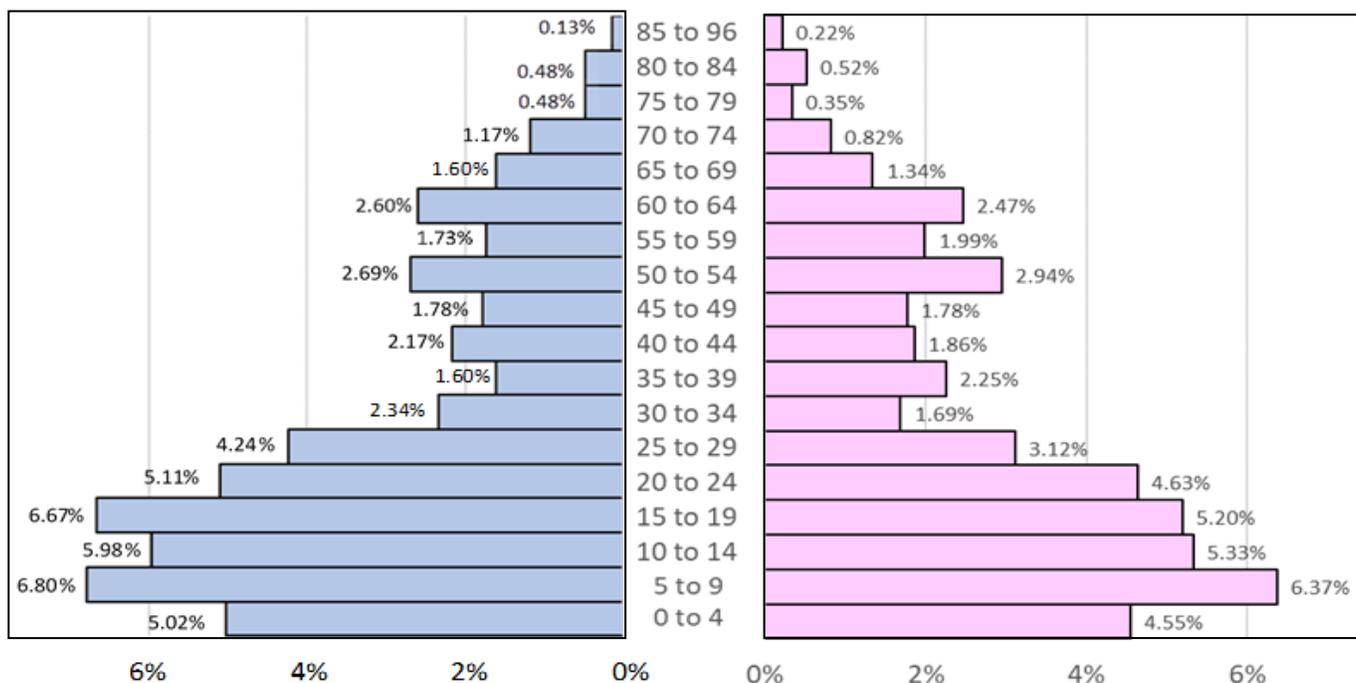
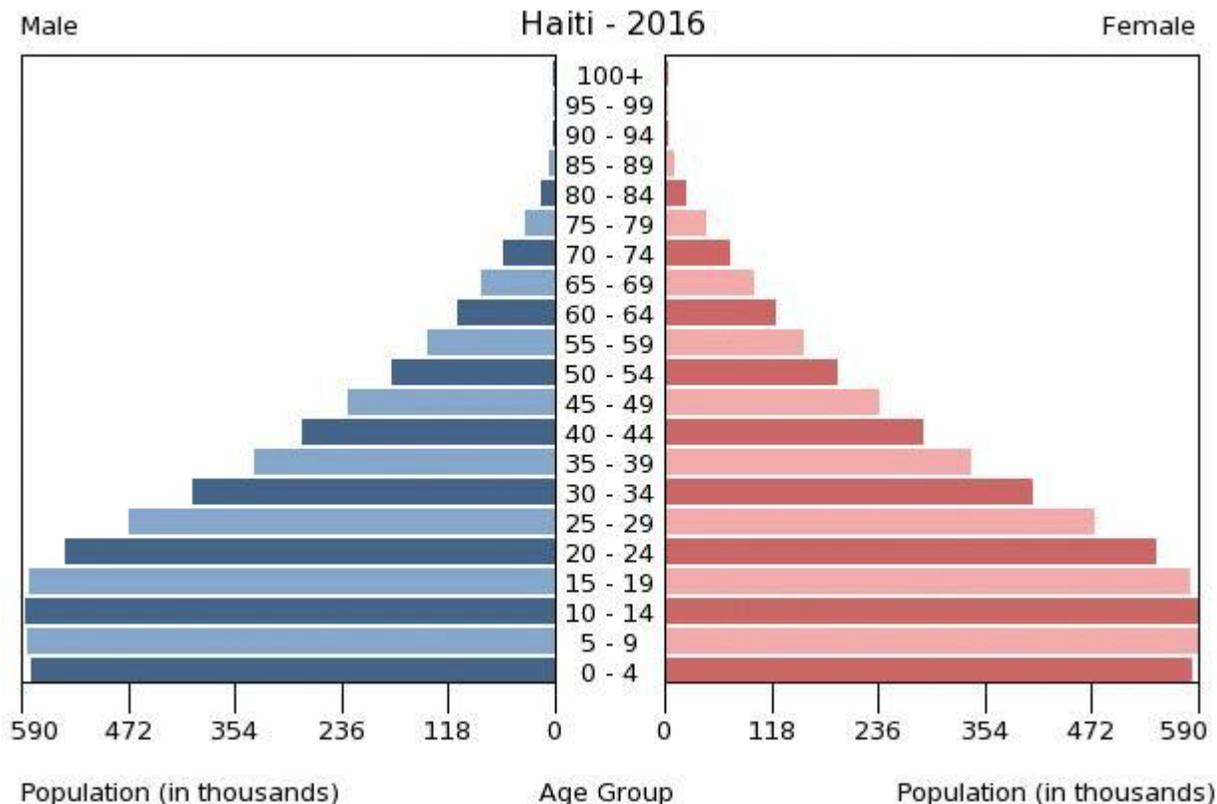


Figure 4.3: Population Pyramid for the HEKS-EPER Grand Anse Survey Population

Figure 4.4: HEKS-EPER Grand Ansa Sample Population Pyramid



Imposed on
2015 Haiti National Population Pyramid

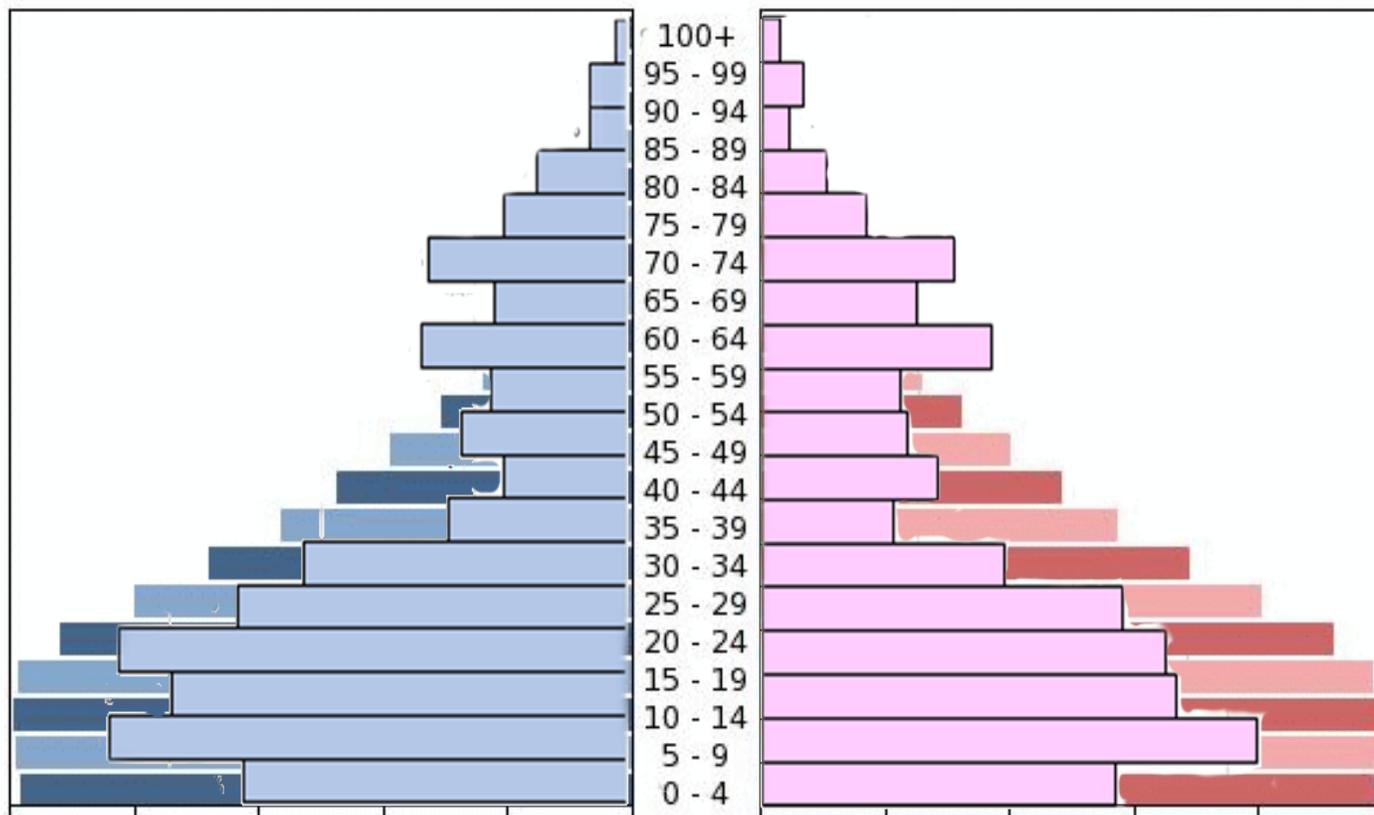


Photo 3.1: Family in Abriko



Photo 3.2: Family in Wo Voldrgo

Figure 4.5: Population Pyramid,
 Gender Comparison of 5-Year Age Groups
 (n= 451 households, 2,310 individuals)

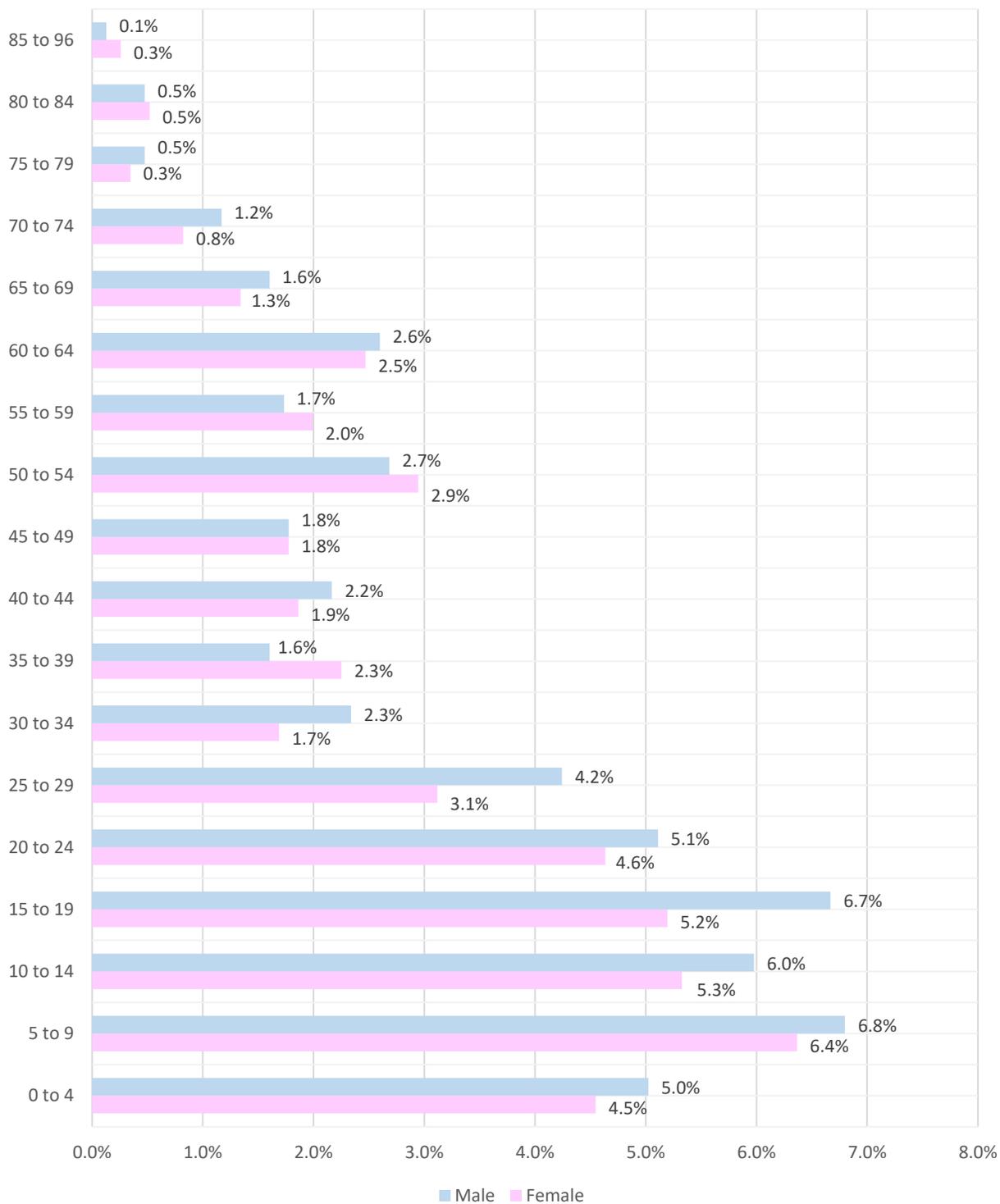
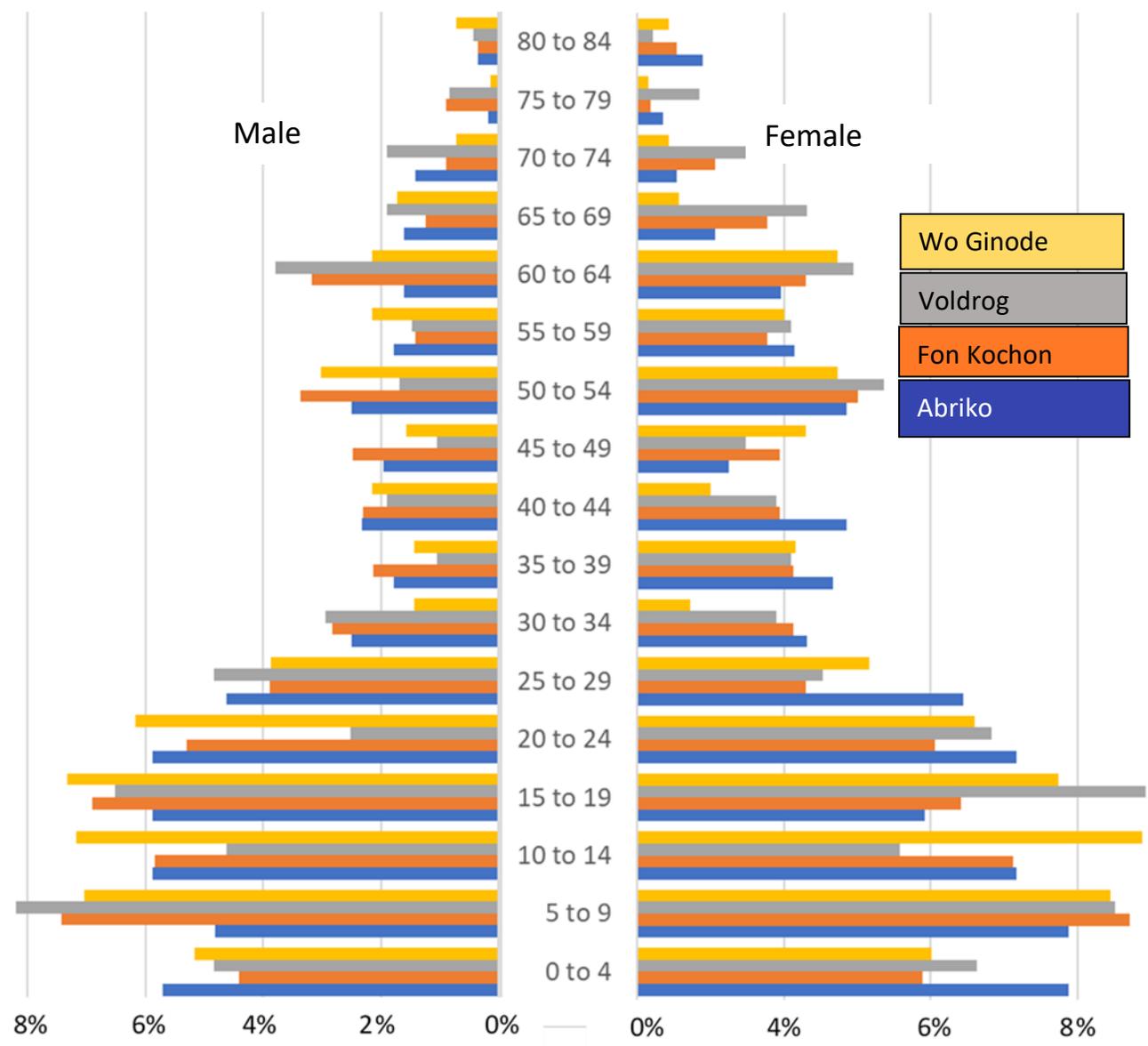


Figure 4.6: Comparison of Population Pyramids for all Four Agro-Ecological Zones



5. Life in the Rural Grand Anse

Transport

As seen in Figure 5.1, the primary means of transport for the majority of survey respondents (83%) is by foot. Pack Animal is a distant 2nd (10%), followed by motorcycle (3%) and then public transportation on bus or *taptap* (1%). Some four percent of respondents cited “other” as the primary means for transport to market. Most of these latter respondents were from seaside communities in Abriko, suggesting that “other” means boat. What the remaining “other” mean is not clear. As will be seen with comparison for most variables that the survey collected data for, we found no significant differences in the primary means of transport between different agro-ecological zones (Figure 5.2, below).

Figure 5.1: Primary Means of Transport to Market (N=451)

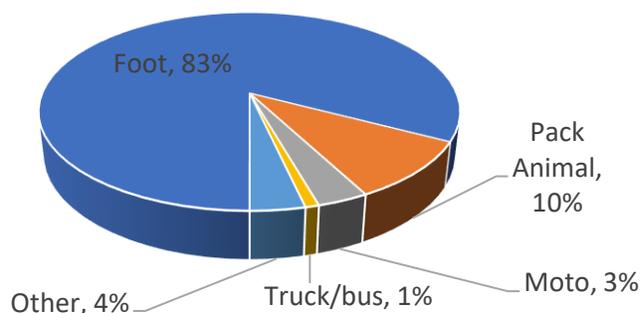


Figure 5.2: Primary Means of Transport to Market by Zone

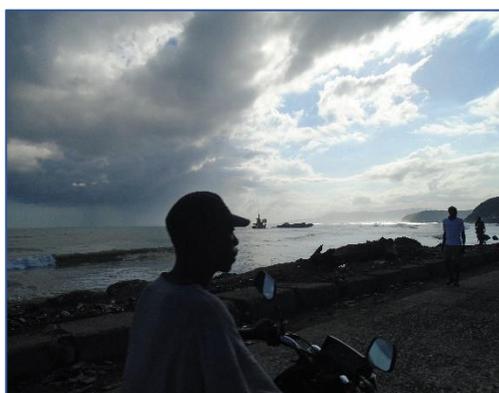
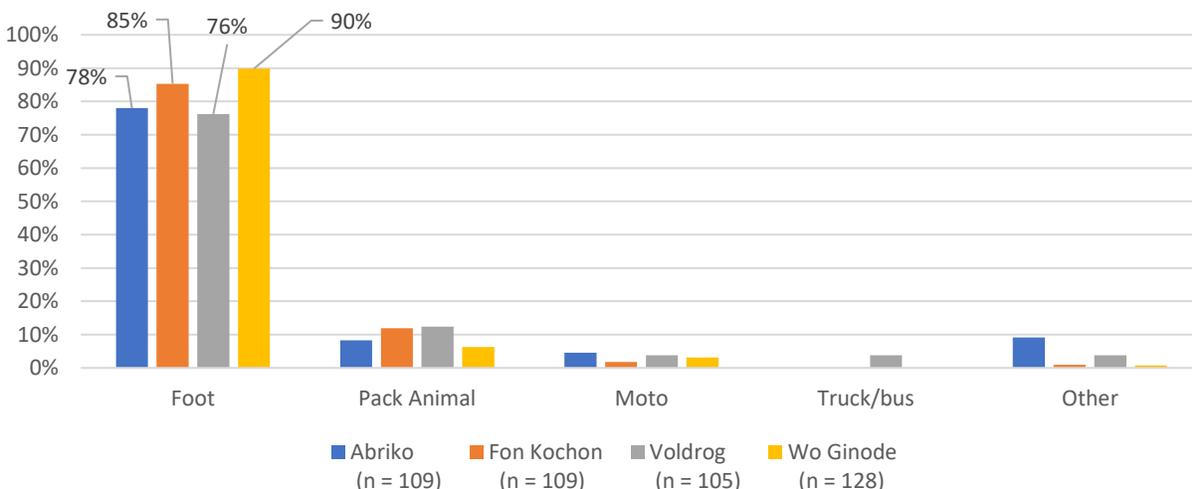


Photo 5.1: Mot taxi in Jeremie



Photo 5.2: Taking lumber to market in Jeremie

Assets

The survey questionnaire inquired about possession of assets at the time of the survey versus right before Hurricane Matthew hit in October 2016. Reported ownership declined significantly on all assets measured. Specifically, regarding the five most owned assets: reported telephone ownership declined from 72 to 56 percent, mattress ownership declined from 71 to 20 percent, dining-room table ownership from 64 to 20 percent, radio ownership from 52 to 22 percent, and dish cupboard from 32 to 7 percent (Table 5.3.). The areas where the losses tended to be greatest were Fon Kochon and Voldrog (Table 5.4). It is not clear if the reported losses truly reflect losses or simply reported losses. A confounding issue with this regard is that in year 2012, following Hurricane Sandy, Haiti's largest rural financial institution (FONKOZE with some 220,000 members), reimbursed creditors for losses that ostensibly came from damages incurred during the storm. Members were reimbursed and loans were forgiven whether the beneficiary had lost anything or not. FONKOZE had done the same thing after the 2010 earthquake, forgiving members loans and giving them cash gifts of US\$25, even though most rural members were not impacted by the earthquake. Similarly, following Mathew in 2016, HEKS-EPER sent cash transfers to rural areas as well. Whether or not these cash distributions and forgiven loans are justified or not is a moot point. They definitively increase the tendency for rural respondents to exaggerate losses incurred during crises such as Hurricane Matthew.

Figure 5.3: Comparison of 5 Major Assets to Before Hurricane vs. Time of Survey (n=451)

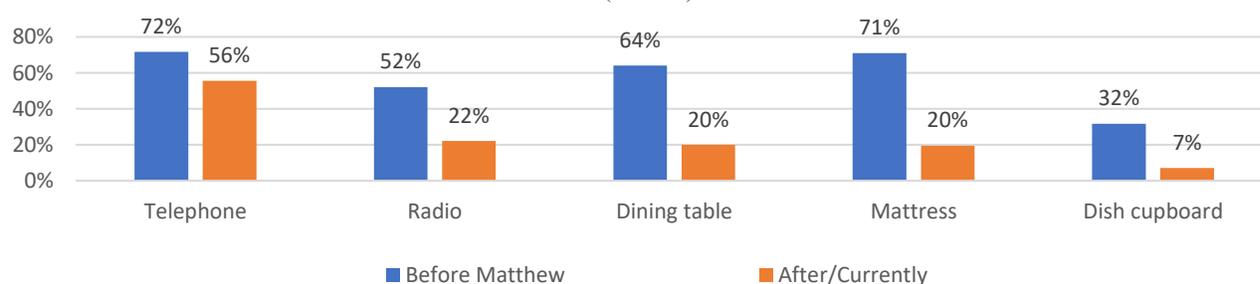
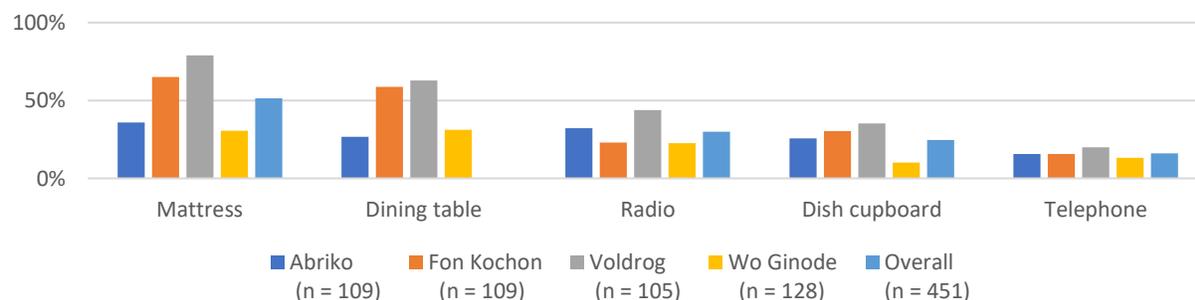


Figure 5.4: Comparison of Decline in 5 Major Assets from Before Hurricane vs. Time of Survey by Zone (n=451)



Land Ownership

We found in the survey that the average household had 1.38 carreaux of land (1.78 hectares). This is exactly what the Haitian government reported in 2001 as a national average for rural farms (ECVH 2001), and very similar to figures from the 1950s, suggesting that given the technology and access to labor, there is an optimal farm size in rural Haiti (see Textbox 5.1).

How the Survey Measured Quantity of Land Owned

How much land a household "owns" is not as straight forward as it might seem. Land tenure in rural Haiti is complex. Men and women in union typically have land they have bought together as a couple and hence owners of the household. But men and women often have access to "land heritaj" (family land). If the parents of the individual have not died they probably do not yet "own" that land, but they might have access to a specific quantity. Brothers and sisters may also have access to the same land. Nevertheless, our experience in Grand Anse focus groups indicate that individuals are able to and do identify "land heritaj" in terms of what they as individuals will or have inherited. Thus, men and women have land they own as a couple and they have inherited land. We found that when we asked about land in focus groups, respondents most often reported on those lands separately. But for analytic purposes, the total amount of land that a "household" owns includes purchased land and land inherited by each of the household heads (man and woman) or, if there is only one head, that particular person. Thus, in the baseline we asked about all the land: land the respondent and spouse inherited, and what they had bought together. Table 5.2 presents the results for each category. On the following page, Table 5.3 gives the same figures for each agro-ecological zone, revealing similar patterns of land holding for each zone.

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%

Amount of Land	Abriko (n = 109)		Fon Kochon (n = 109)		Voldrog (n = 105)		Total (n = 451)	
	Percent	Cum	Percent	Cum	Percent	Cum	Percent	Cum
0 Kawo	7%	7%	10%	10%	8%	8%	9%	9%
0 < Kawo = 0.5	16%	23%	39%	49%	40%	48%	36%	45%
0.5 < Kawo = 1.0	14%	37%	15%	63%	21%	69%	15%	60%
1.0 < Kawo = 1.5	11%	48%	18%	82%	12%	81%	12%	72%
1.5 < Kawo = 2.0	11%	59%	5%	86%	6%	87%	6%	78%
2.0 < Kawo = 2.5	6%	65%	2%	88%	4%	90%	5%	83%
2.5 < Kawo = 3.0	2%	67%	2%	90%	1%	91%	2%	85%
3.0 < Kawo = 10.0	28%	94%	10%	100%	8%	99%	13%	98%
10.0 < Kawo = 15.0	4%	98%	0%	100%	1%	100%	1%	99%
15.0 < Kawo = 17.6	2%	100%	0%	100%	0%	100%	1%	100%
TOTAL	100%		100%		100%		100%	



Photo 5.3: Family in garden in Wo Ginode



Photo 5.4: Woman with two sons in Wo Ginode

TEXTBOX 5.1

Myth of Land Fragmentation

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)].



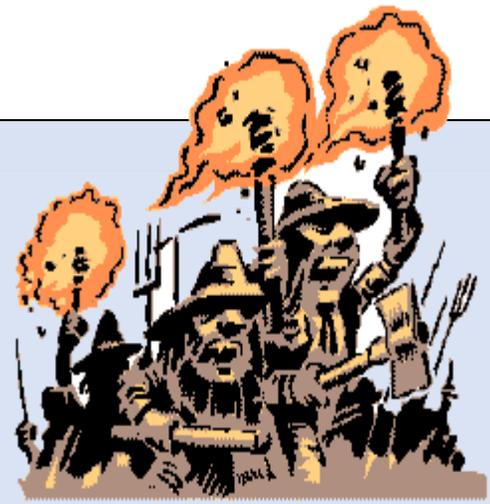
Figure 5.5: Single-female headed household in Abriko



Figure 5.6: Another single-female headed household in Abriko

TEXT BOX 5.2: AGGRESSIVE LAND MARKET

The most cited explanations for the “failure” of Haitian peasants to invest in improving the land they live on-- such as planting mango trees—are often the weakest explanations. And perhaps the most cited reason of all—and the most mistaken-- is land insecurity, or what 30 years ago one of Haiti’s most consulted consultants, Gerald F. Murray (1985:323) called, “the whipping boy to deflect blame for project failure.”



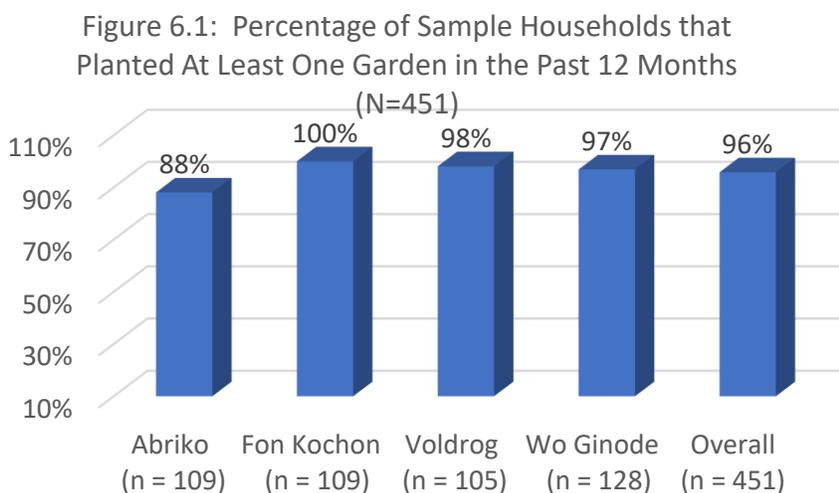
As the argument goes, lack of land title makes peasants fearful of improving the value of their land lest someone take it away. For Haiti, scholars have debunked the myth of peasant land insecurity over and over again (Murray 1977, 1978a, 1978b, 1979; Locher 1988; Bloch et al. 1988; McClain et al. 1988; White and Runge 1994, 1995; Smucker et. al. 2000). Haitian peasants are not insecure about their land. They’ve been buying and selling it for 211 years, ever since they defeated the last of the Napoleon’s armies and drove off the plantation owners. In contrast to assumptions of state officials (see; CIAT 2012), and some if not most foreign aid specialists (see for IDB 2014), they would rather not formalize ownership, at least not in a “legal” sense. To do so would draw them into a system where the title and contracts cost more than the land itself. It’s also a system they do not understand and that would expose them to predation from unscrupulous city lawyers and urban land grabbers. The rural Haitian cultivator is more comfortable in the “informal” land tenure system where today 95% of all land transactions in Haiti occur. It’s a system complete with scrawled contracts, recognition from neighbors and even recognition from the local-level legal authorities who are physically present in the community, connected to the community through kinship, and who the peasants can hold accountable through such old fashioned and dependable mechanisms as insulting in song, shunning or, if nothing else works, burning down their house. It’s a system that the elites do not understand, something that reverses the educated city slicker vs ignorant hick syndrome that has been at the heart of land controversies throughout Western history, i.e. it gives the peasants a measure of protection.

Indeed, perhaps ironically, it’s not the Haitian peasants who are insecure about land. Those who suffer land insecurity in Haiti are predominantly the wealthy, largely absentee landowners who for 200 years have, as with the informal economy in general, watched the peasant informal land tenure system swallow their formal system. The peasantry or, perhaps more accurately, the popular class masses, have been on a steady 230-year march, first taking the land from the French colonists, then from mulatto plantations class that survived the revolution. To this day, elite Haitian land owners often watch helplessly as peasants and urban immigrants move onto the land, break it into small parcels and incorporate it into their vigorous informal trade in garden and house plots. When those elites have showed up shaking a title in hand and demanding their property back, they have, far more often than not, found themselves confronted by 100s of rock hurling and machete wielding peasants. And they emphatically lose 90% or more of those battles. Go to a lawyer in Haiti today and complain about having lost your land to rural peasants or poor slum dwellers and the most likely advice you will get will be for free: “you care more about your land or your life?”

6. Agriculture

Gardens Planted

It was extremely rare for a household to report not having planted at least one garden in the past 12 months. About 50% of all households in all 4 zones planted 2 or more gardens, with the upper limit for most being 4 gardens (see Figure 6.1). The partial exception is Abriko, where 12 percent of respondents reported planting no garden in the past year, something that reflects the full dependency of some households on fishing and livestock.



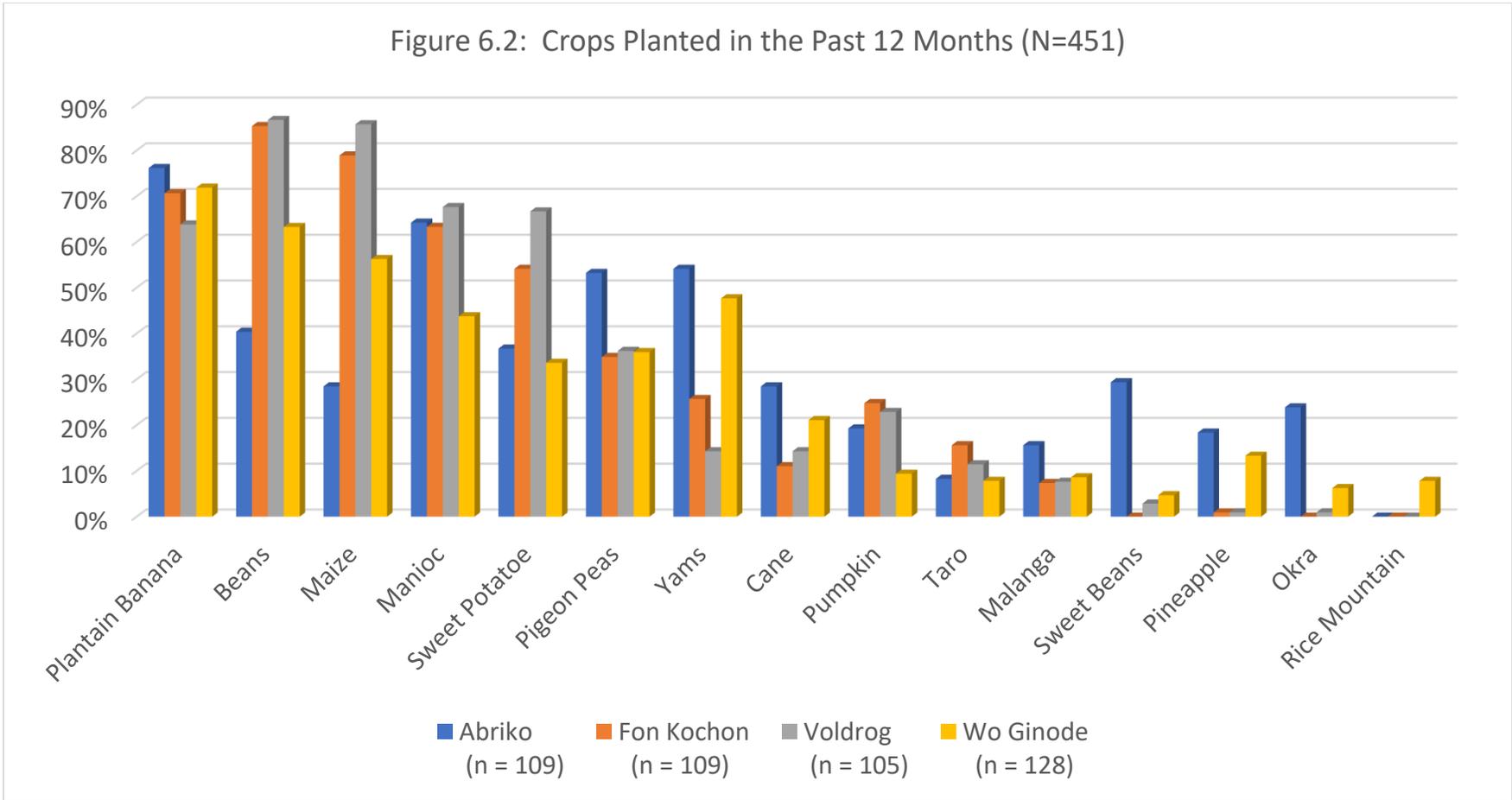
Crops Planted

There is a significant difference in the *importance* of one crop vs. another in the different zones, but as can be seen in Figure 6.2, on the following page, the major crops are the same for each zone, regardless of the differences in altitude. Note also that while a minority of the 10 major crops are seasonal cash crops harvested all at once, such as black beans and corn, most can be thought of as survival crops, meaning hardy, drought resistant, some of which can be stored in the garden, on the vine or root, such as yams, sweet potatoes, malanga, taro root, and manioc. Others yield consistently throughout the year, such as pigeon peas, plantains, and bananas. In general, while these products may often be sold in exchange for cash, the crops fit into the overall peasants subsistence-oriented strategy discussed in next Textbox (see also, Textbox 6.1).



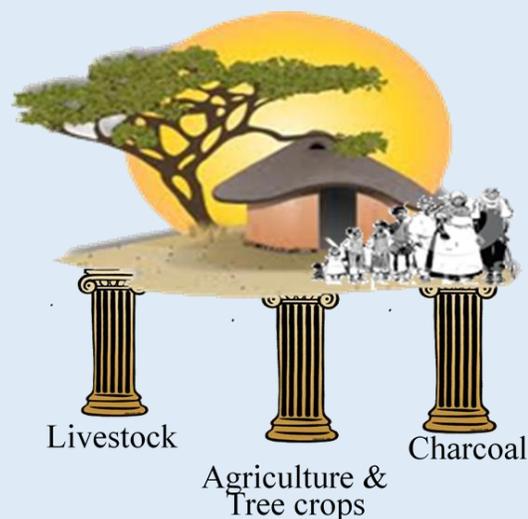
Photo 6.1: Clearing a garden in Fonn Kochon

Figure 6.2: Crops Planted in the Past 12 Months (N=451)



TEXTBOX 6.1:**Integrated Livelihood Strategy and the Three Pillars of Rural Haitian Household Subsistence**

No matter what other source of income a rural household may have in Haiti, whether it be fishing, commerce or a member with a housebuilding profession, the three main *productive* pillars of a the rural household-based economy are agriculture, livestock rearing, and charcoal. Agriculture is the most important of the three pillars: more than 90% of rural households depend on the intercropping of sweet potatoes, yams, manioc, and plantains. These crops are known as *viv*, and with the exception of sweet potatoes, they are available year round and during the most severe crises. The farmers also plant corn and beans, plantains, melons, squash, and peanuts.



Emphasizing the persistence and adaptability of the subsistence orientation of this livelihood strategy, five of the major crops were the very same five crops most important to the Taino Indians who inhabited the area in pre-Columbian times (manioc, sweet potatoes, corn, peanuts, and pumpkin). Rural Haitians also benefit from at least 18 fruit and nut bearing trees that provide an almost constant yield throughout the year and that include staples such as breadfruit and avocados. Sources of cash are beans, coffee, cocoa and coconuts. The second pillar of the rural Haitian household productive strategy is livestock. Where private agricultural plots are widespread, livestock must be tethered and strict penalties are to be paid for those whose animals ravage their neighbor's gardens. In more remote communities most land is State owned land and people free range their livestock. The third productive pillar is manufacturing charcoal for the urban market, a major productive activity for low-income households throughout Haiti and especially in the communities studied. Charcoal is the most important economic backstop in times of crisis. The tools used in performing these livelihood strategies are, for the vast bulk of the population, no more complex than picks, hoes, and machetes. Few farmers ever use barbed wire; rather they tether their animals with homemade rope, and the rare corral are enclosed with wooden stick barricades or living fences made of fast growing and malicious vegetation such as dagger-like sisal, cacti, and poison oak (*katoch*, *kandelab*, *pit*, *pigwen* and *bawonet*). In most of Haiti, farmers do not use cows or horse traction to plow fields. There are few pumps; farmers with gardens plots near to springs and rivers sometimes manually haul buckets of water to irrigate crops, particularly vegetables in cool highland areas. Irrigated land is scarce (less than 2% of all agricultural land). The use of chemical or processed fertilizers and pesticides is almost entirely confined to highland vegetable gardens and, to a lesser degree, beans (also considered a cash crop), that dependably yield profits. Many houses are made of local stone or wattle and daub and roofed with plaits of *zeb guine* (Guinea Grass) or thatch from native palms. As will be seen later in this report, other economic "pillars" of the household are trade and crafts, or what some call occupation multiplicity, as well as fishing. However, these are not primary productive activities, but rather processing and building, as with crafts, or opportunistic harvesting, as with fishing,

Agricultural Inputs

Fertilizers & Pesticides

The survey also inquired about investments, specifically whether respondents fertilized or used pesticides on any crops and if so which crops. Congruent with prioritization of the subsistence-oriented strategies discussed in Textbox 6.1, the respondents do not purchase fertilizers and pesticides. Only one of the respondents reported using fertilizer on a crop in the past 12 months and only two reported using a pesticide. We know, anecdotally, that farmers benefit from grazing their own livestock on agricultural land after harvests, i.e. the animal manure fertilizes the soil. But we did not find evidence of respondents deliberately collecting manure nor making pesticide from trees such as the neem, widely recognized to be useful in killing insects and protecting crops.

Use of	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Fertilizer	1		5	1	7
Pesticide	0	0	2	0	2

Labor

Apart from the land itself, the most significant agricultural investment that farmers make is labor. Sixty-seven (67%) percent of respondents had employed at least one person in the previous year, 34 percent had employed them within the past 15 days (see Figure 6.4); 91 percent of these people had employed the worker(s) for their garden (Figure 6.3, right), we know anecdotally that in most cases it was to prepare the soil for planting; 68 percent had employed at least 6 workers and 28 percent had employed 11 or more. The cost is 100 *goud* plus a meal per worker per day (~US\$2).

Figure 6.3: Type of Person(s) Employed

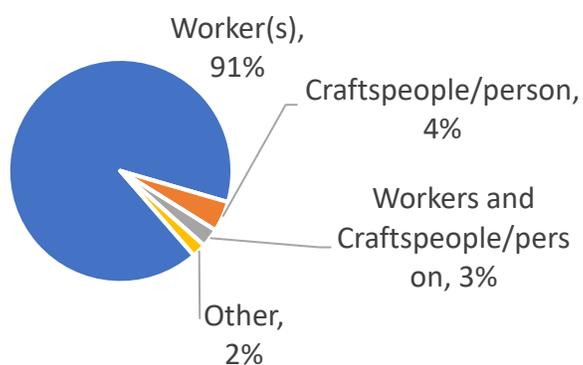


Figure 6.4: Last Time Hshld Gave Someone a Job (n=451)

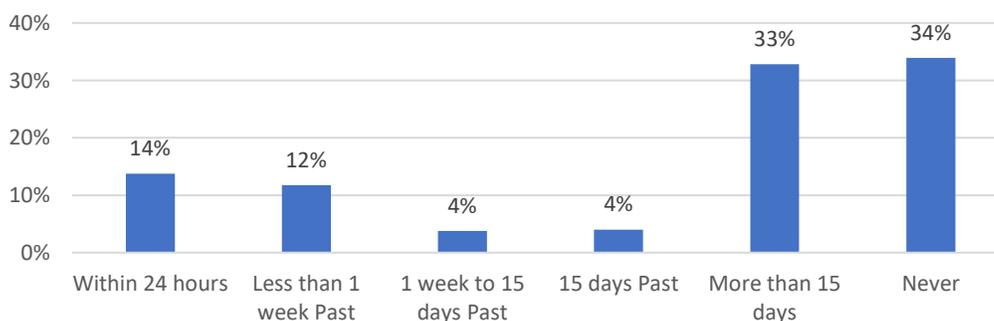
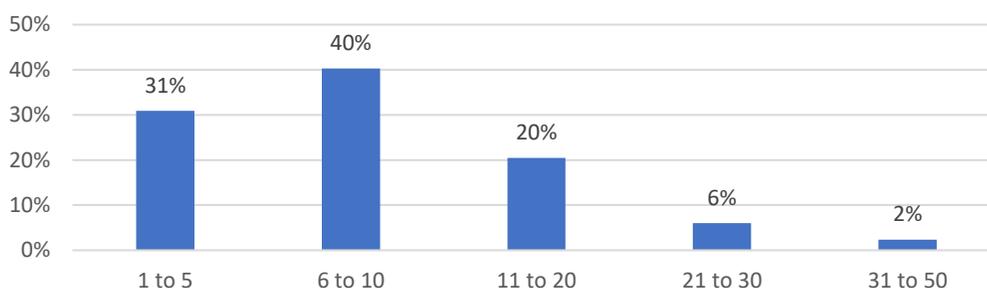


Figure 6.5: Number of Workers Respondent Household Employed Last Time they Gave Work (n=298)

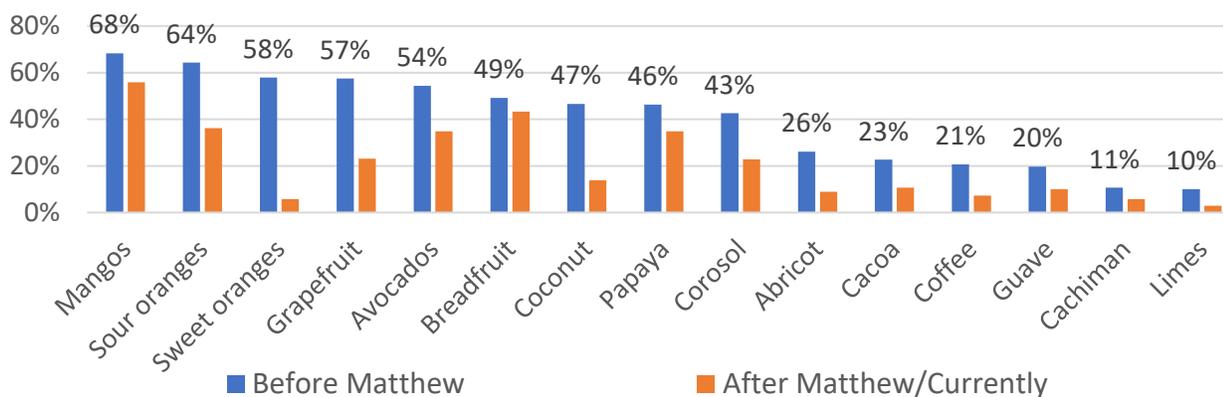


7. Trees

Types of Trees Owned

To understand the frequency of tree ownership, the questionnaire asked, not about total number of trees, but rather if a someone who was a member of the household owned at least one each species of tree. Fruit trees the most commonly report trees owned and the most common fruit tree is mango (68%); but 40 percent or more of respondents reported that at the time of Hurricane Matthew household members owned at least one of the eight other most common fruit trees (Figure 7.1).² Wood trees are less common, but still significant, the most common being cedar (50%) followed distantly by Local Mahogany (26%), Fwen/ Paradise Tree (24%), and Foreign Mahogany (21%) (see Figure 7.2). Because Hurricane Matthew destroyed many trees, we also asked about trees owned at the time the storm hit, thereby giving us two measures of ownership, one for before the storm and one for 16 months after. Note that the only fruit tree that we considered also as a wood tree and programmed into questionnaire was mango, which

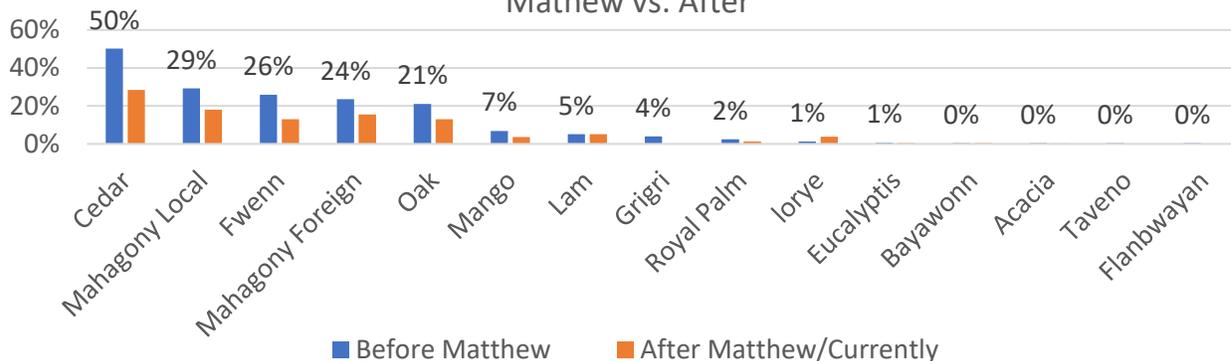
Figure 7.1: The 15 Most Common Fruit Trees: Before Hurricane Mathew vs. After



² For scientific names of trees see Table A5 in the Annex “Kreyiol, English and Scientific Names for Trees”

was discussed often in focus groups as an excellent wood, particularly for making boats. Mango is, according to Timyan (1996), not only the most common fruit tree in Haiti, but also the most common board wood. This importance was not reflected in the survey responses illustrated (See Annex for more precise details). Some respondents nevertheless cited Almond, Breadfruit, and Avocada as wood trees that they possessed.

Figure 7.2: The 15 Most Common Wood Trees: Before Hurricane Mathew vs. After



Declines in Major Tree Types From Before Matthew to Present

Figure 7.3 and 7.4 give the differences in the percentage of households reporting they own at least one of the listed trees at the time of Matthew vs. the time of the survey. Thus, it can be thought of the rates of decline in trees:

$$[\text{Trees Owned Before} - \text{Trees Owned Now}]$$

A couple of clarifications are that negative values, indicate that ownership of that type of tree actually increased, such as for Mangos in Abriko. The very large number of Sour Orange trees lost reflects not only the storm, but the impact of blight (Sour Oranges are valuable and commonly used to sanitize meat). Two important takeaways from the data on trees are that there is relatively little difference in the frequency of tree type ownership from one agro-ecological zone to the other. We also see once again that Voldrog and Fon Kochon appear to have suffered significantly greater damages and losses from Matthew than the other two regions (see also section on Assets)

Figure 7.3: Fruit Tree Rates of Decline Before Matthew vs present for Five Most Common Fruit Trees by Agro-Ecological Zone (N=451)

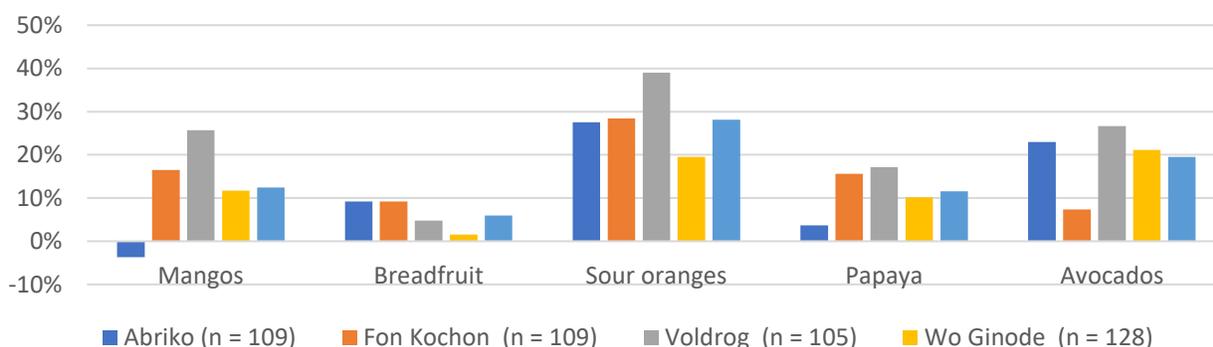
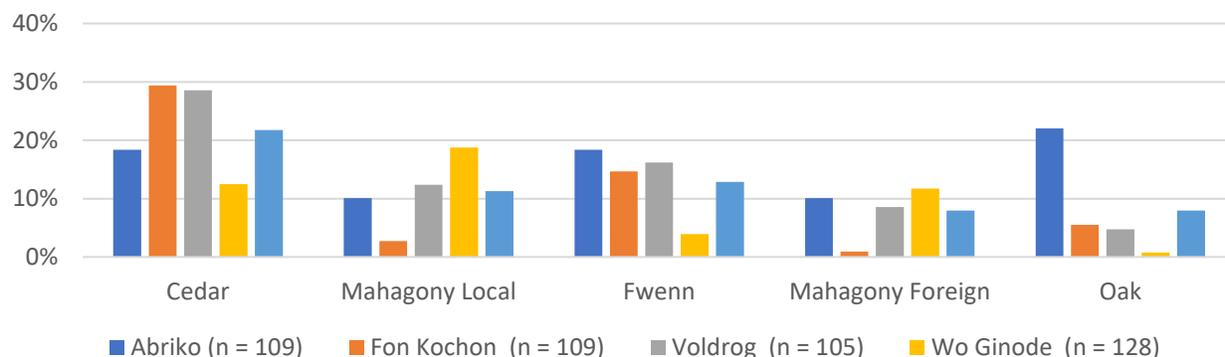


Figure 7.4: Wood Tree Rates of Decline Before Matthew vs Present for Five Most Common Wood Trees by Agro-Ecological Zone (N=451)



TEXT BOX 7.1: MYTH OF THE INDISCRIMINATE HAITIAN CHARCOAL MAKER

A common myth often repeated among development experts working in Haiti is that the peasants cut their fruit trees for charcoal (see MIF 2010; USAID/WINNER 2015; TNS 2014; Davenport 2000:1). And they do. But what's mythical is the implication that they are indiscriminately felling healthy and productive fruit trees. After seven years of researching factors that drive Haitian farmers to cut trees, Andrew Tarter, PhD, concludes that,



Photo T7.1.1: Charcoal in Guilotte

Rural Haitians are extremely reluctant to cut their fruit trees. ... Cutting a productive tree with edible fruit is a last resort, and other trees will be targeted for charcoal production long before machetes touch the branches and trunks of fruit trees.



Photo T7.1.2: Woman sorting charcoal in Renal

The exception to this general rule is that peasants will cut fruit trees that are becoming unproductive or producing a fruit of low quality. Moreover, Tarter (ibid) notes--and we found partial support for this observation during the course of the focus groups-- that the recent trend is to replace fallen mango, cacao and coffee trees with trees that produce starchy fruit, such as breadfruit, plantains, and avocados. The reason is, quite simply, market forces. To be exact,

- the export market for coffee and Cacao is unprofitable
- the local market reigns
- the local market wants starchy staple foods, things you can eat for dinner and,
- if the producer cannot sell the fruit, they can eat it for dinner

Andrew Tarter, PhD anthropology, author of "Trees in Vodou: An Arboreal-cultural Exploration" (article) and book manuscript entitled, "Adaptive Arboreal Practices: Haitian Farmer Responses to On-going Deforestation"

Investments in Trees

We know anecdotally and from focus groups discussions that farmers in the Grand Anse do not strategically trim neither fruit nor wood trees. About half of focus group respondents claimed to have planted trees, mostly mango, breadfruit and coconut. But they do not start nurseries and typically not even seeds. Rather they rely on the occasional NGO project to start tree nurseries and they encourage seedlings that have opportunistically sprouted on their land or they dig the saplings up and move them to another location. Reported use of fertilizers and pesticides on trees are a proxy indicator of this near zero investment strategy. Similar to crops, seen in the previous section, only one respondent reported using fertilizer on fruit tree—it was in Wo Ginode and he used it on sour oranges-- and only one respondent reported using insecticide--it was in Abriko and it was sour oranges. This sparse use of insecticides is despite the fact that focus group participants complained about widespread insect infestations of both wood and fruit trees and beseeched us, as representatives of HEKS-EPER to do something about. Once again, this is powerful evidence for an entrenched 0-risk and 0-investment strategy. And it begs the question, do the farmers have no idea how to combat the problem insects? Are they unaware. For example, that concoctions of neem soap could fight insect infestations? Is it really that the farmers would rather ask foreign-aid agencies to help them, on the off chance they might, rather than do it themselves?

Use of	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Fertilizer	1	0	0	0	1
Pesticide	0	0	0	1	1



Photo 7.1: A living fence in Renal



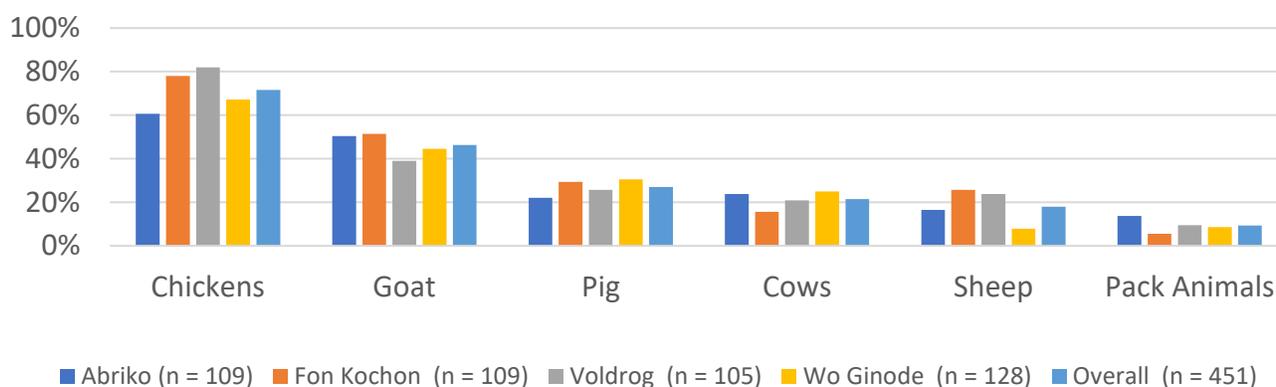
Photo 7.2: Castor Bean tree in Renal

8. Livestock

Percentage of Households Owning Different Livestock

Because of expectations that humanitarian aid organizations will give ‘victims’ livestock, as well as a general secrecy that focus group participants emphasized regarding animal ownership, we did not ask people how many animals they currently own, but only if they owned at least one of each animal. Figure 8.1 summarizes the number of households reporting that at the time of the survey they owned at least one of the cited animals. Overall, 72 percent of respondents reported owning at least one chicken, 46 percent at least on goat, 27 percent at least one pig, 22 percent at least one cow, 18 percent at least one sheep, and 9 percent at least one pack animal. As can be seen in comparing one agro-ecological zone with the other, there is little different between the areas. All areas had essentially the same proportion of households reporting ownership of any particular type of livestock.

Figure 8.1: Owned at Least One of these Animals at Time of Survey
(March 2018)



Livestock Owned at Time of Matthew vs. Time of Survey

As with trees, we also asked about ownership at the time that Hurricane Matthew struck. However, because we expected people to be more candid about how many of each animal they owned in the past, and because that information could be so useful as a window into true ownership during typical times of non-disaster, we included questions about the specific number of animals owned. These figures are provided in Table 8.1, on a subsequent page, and they indicate rather dramatically high numbers of livestock. Moreover, if we only consider a comparison of percentage of respondents who owned at least on animal at the time of Matthew vs. at the time of the survey, we see significantly higher numbers than those seen in Figure 8.2. Essentially everyone owned at least one chicken, 92 percent owned a goat, 61 percent a cow, 53 percent a pig, 48 percent a sheep, and 19 percent at least one pack animal. Whether the difference from the reporting for ownership at the time of the survey vs. time of Matthew means that some respondents are falsely reporting or that they still have not recuperated from the

hurricane losses, these are the numbers that best represent expected ownership during normal times.

Figure 8.2: Comparison of Animals Owned, Before Hurricane Mathew vs. Survey (n = 451)

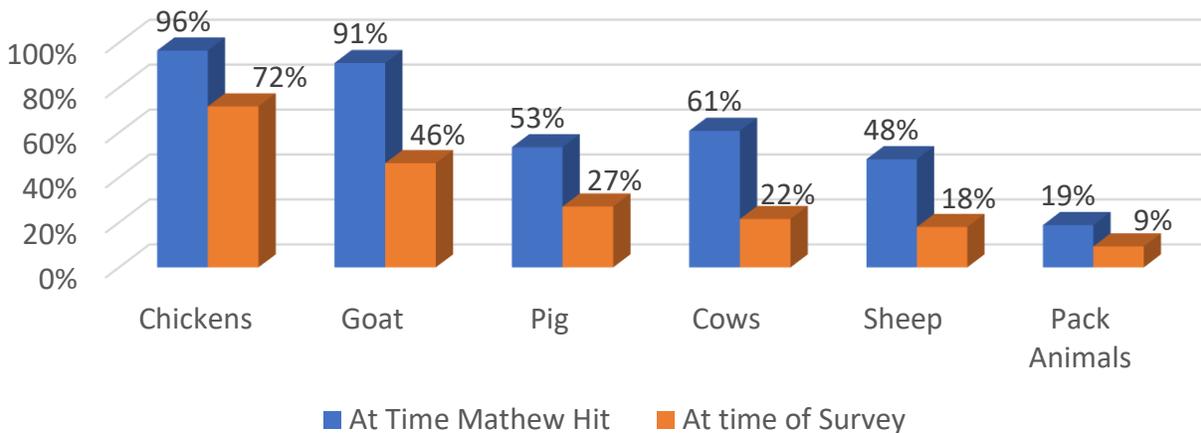


Photo 7.3: Taking the cows to the river



Photo 7.4: Moving the goats to new foraging area



Photo 7.5: Man and children with horse in Wo Ginode

Animals	Number of Animals	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
CHICKENS	0	10%	1%	2%	2%	4%
	1 to 5	9%	7%	5%	8%	7%
	6 to 10	27%	21%	22%	22%	23%
	11 to 15	13%	17%	16%	15%	15%
	16 to 20	15%	15%	21%	16%	17%
	21 to 25	6%	6%	7%	10%	7%
	26 to 30	5%	17%	6%	5%	8%
	31 to 35	0%	3%	5%	2%	2%
	35 to 40	2%	6%	4%	5%	4%
	41 to 45	1%	4%	3%	5%	3%
46 to 250	15%	6%	12%	13%	12%	
GOATS	0	12%	8%	3%	13%	9%
	1 to 5	37%	39%	44%	48%	42%
	6 to 10	34%	32%	29%	28%	31%
	11 to 15	9%	6%	14%	7%	9%
	16 to 20	3%	7%	4%	2%	4%
	21 to 25	2%	5%	1%	2%	2%
	26 to 30	2%	2%	3%	0%	2%
	31 to 35	1%	0%	1%	0%	0%
	35 to 40	1%	0%	1%	0%	0%
41 to 45	0%	1%	1%	0%	0%	
Sheep	0	60%	29%	30%	63%	47%
	1 to 5	34%	41%	44%	30%	37%
	6 to 10	5%	17%	23%	4%	12%
	11 to 15	2%	7%	2%	2%	3%
	16 to 20	0%	3%	1%	0%	1%
	21 to 25	0%	1%	0%	0%	0%
	26 to 30	0%	0%	0%	1%	0%
31 to 35	0%	1%	0%	0%	0%	
PIGS	0	37%	28%	46%	0%	39%
	1 to 5	55%	61%	67%	0%	53%
	6 to 10	8%	6%	6%	0%	6%
	11 to 15	0%	2%	1%	0%	1%
	16 to 20	0%	0%	3%	0%	1%
21 to 25	0%	0%	1%	0%	0%	
Cows	0	67%	41%	45%	54%	52%
	1 to 5	32%	53%	51%	44%	45%
	6 to 10	1%	5%	4%	2%	3%
	11 to 15	0%	1%	0%	1%	0%
Pack Animals	0	78%	78%	79%	88%	81%
	1 to 5	20%	22%	21%	12%	18%
	6 to 10	2%	0%	0%	0%	0%

Inputs

Feed and Supplements

Farmers investment in animals follows the same near 0-investment strategy seen with crops and trees. Farmers depend almost exclusively on foraged fodder or fodder left over from harvested produce to feed their animals. Only 13 respondents reported having purchased any prepared animals feeds in the three years prior to the survey interview, six of which were for chickens and 7 for pigs.^v

Input	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Prepared feed	9		2	2	13
Supplement	3	0	2	1	6
Vaccinated	43	48	64	35	190

Vaccinations

Vaccines are a partial exception to the 0-investment strategy. Because epidemics can be so devastating, and because there are occasional subsidized animal vaccination campaigns, more farmers vaccinate than use feed supplements or use fertilizers and pesticides on crops and trees (see Table 8.3 and 8.4). Nevertheless, it is an exception that essentially proves the 0-investment rule: if we consider only farmers who reported owned at least one of the specified animals, either at the time of Hurricane Matthew or presently, less than 50 percent of livestock owners had vaccinated any of their animals over the three years prior to the survey.

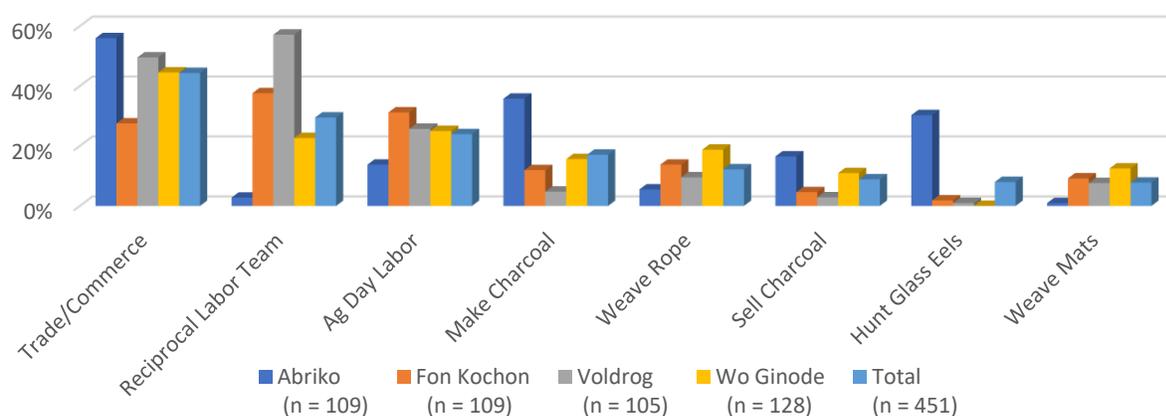
Animals	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Goat	24	30	48	14	116
Cows	14	34	40	22	110
Pig	18	23	38	19	98
Sheep	1	17	35	1	54
Chickens	7	11	17	4	39
Mules	1	8	5	6	20
Horses	3	7	4	4	18
Donkies	5	0	0	0	5

Animals	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Cows	25%	52%	63%	30%	44%
Donkies	56%	0%	0%	0%	42%
Mules	14%	43%	36%	50%	38%
Pig	31%	29%	46%	20%	31%
Horses	20%	38%	24%	38%	29%
Goat	24%	30%	46%	11%	27%
Sheep	2%	22%	43%	2%	21%
Chickens	7%	10%	16%	3%	9%

9. Other Income Generating or Reciprocal Livelihood Activities

In addition to crops, fruit, lumber, and livestock, most rural households in Haiti depend on a variety of other direct and indirect income generating activities. In the survey, we found the most important of these activities to be trading (commerce), charcoal production, and agricultural day labor (see Figure 9.1 below). Forty-four percent (44%) of respondents said that someone in the house had engaged in trade (commerce) during the prior 12 months; 17 percent said someone had made charcoal; and combining the categories of working as an agricultural labor for pay and working for reciprocal exchange, 53 percent had engaged in agricultural labor. Rural Haitians everywhere also exhibit what anthropologists refer to as ‘occupational multiplicity’, meaning a surfeit of specialties, such as housebuilding tasks like mason, carpenter, and roofer. Some are professional sawyers, tailors, or weavers. Others are masseuses, prayer specialists, or midwives. Some specialize in hunting birds, foraging for vines, roof-thatch or grass. All of these activities are evidence of rural Haiti’s vibrant economy. However, In the remaining sections we elaborate only on Trade and Fishing.

Table 9.1: Occupational Multiplicity (N= 451)



TEXTBOX 9.1: OCCUPATIONAL MULTIPLICITY

The explanation of the rural economy would not be complete without some mention of the fact that the market system bleeds over into a burgeoning economy of artisans, skilled laborers, service specialists. These specialties include porter, butcher, baker, tailor, basket maker, rope weaver, carpenter, mason, iron smith, mechanic, mariner, boat maker and host of marine specialties that keep the boats afloat.

Petty commerce is also a significant feature of the economy. Micro vendors from the most remote homestead to the towns and cities sell everything from a single cigarette and shot of rum to telephone recharge cards to hair ties to small bags of water to cures for cancer and unrequited love and bad luck or dozens of different lottery tickets.

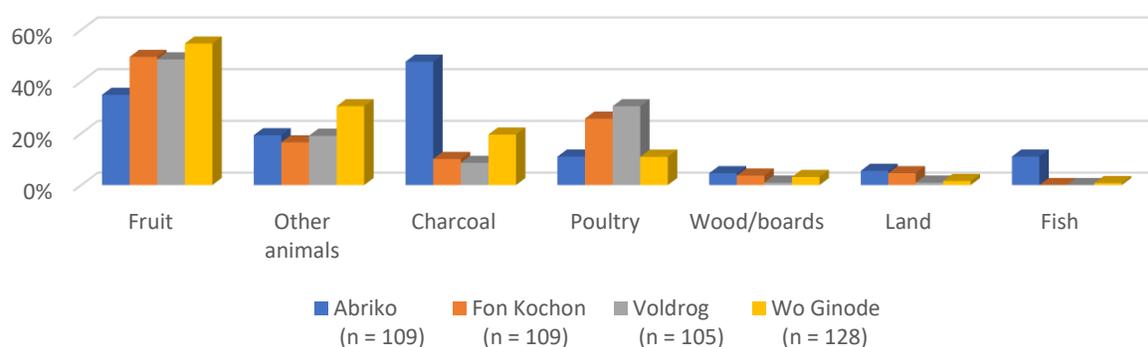


Task	Abrk (n=109)	F.K. (n=109)	Vld. (n=105)	W.G. (n=128)	Total (n=451)	Task	Abrk (n=109)	F.K. (n=109)	Vld. (n=105)	W.G. (n=128)	Total (n=451)
Trade/Commerce	56%	28%	50%	45%	44%	Other Hs bld Skill	0%	3%	0%	1%	1%
Reciprocal Labor Team	3%	38%	57%	23%	29%	Dig Hole For	1%	0%	0%	2%	1%
Ag Day Labor	14%	31%	26%	25%	24%	Porter	1%	0%	0%	1%	0%
Make Charcoal	36%	12%	5%	16%	17%	Mariner	2%	0%	0%	0%	0%
Weave Rope	6%	14%	10%	19%	12%	Vetinary	0%	0%	1%	1%	0%
Sold Charcoal	17%	5%	3%	11%	9%	Dig Hole For	1%	1%	0%	0%	0%
Hunt Glass Eels	30%	2%	1%	0%	8%	Weave Saddles	0%	0%	1%	0%	0%
Weave Mats	1%	9%	8%	13%	8%	Radio Technician	1%	0%	0%	0%	0%
Roofer	3%	7%	19%	3%	8%	Bouche	0%	1%	0%	0%	0%
Search For Vines/Thatch	2%	9%	18%	0%	7%	Make Lime	0%	1%	0%	0%	0%
Fish Sea	23%	1%	1%	0%	6%	Screen	1%	0%	0%	0%	0%
Carpenter	11%	5%	2%	4%	5%	Travail Tè	1%	0%	0%	0%	0%
Climb Coconut Trees	6%	4%	2%	5%	4%	Trèse Bichet	0%	0%	0%	1%	0%
Seamstress/Tailor	7%	3%	2%	2%	4%	Bos Ebenis	0%	1%	0%	0%	0%
Mason	6%	1%	3%	3%	3%	Chapant	0%	1%	0%	0%	0%
Teacher	8%	1%	4%	1%	3%	Travaye Machinn	1%	0%	0%	0%	0%
Sawver	5%	4%	2%	1%	3%	Predikate	1%	0%	0%	0%	0%
Fish River	7%	3%	0%	0%	2%	Technician/Engin.	1%	0%	0%	0%	0%
Hunt Birds	4%	3%	0%	2%	2%	Operate Mill	1%	0%	0%	0%	0%
Masseuse	4%	1%	2%	2%	2%	Make cinder	0%	0%	0%	1%	0%
Climb Mango Trees	4%	2%	1%	1%	2%	Baker	0%	0%	1%	0%	0%
Artisana	6%	1%	0%	1%	2%	Founo	1%	0%	0%	0%	0%
Midwife	1%	4%	1%	2%	2%	Fouve Pilon	0%	1%	0%	0%	0%
Weave Baskets	2%	2%	0%	2%	2%	Make Bridles/ Boat	0%	0%	0%	1%	0%
Make Nets Or Weirs	1%	3%	3%	1%	2%	Shaman	0%	0%	0%	0%	0%
Taxi	2%	2%	1%	1%	1%	Bush Priest	0%	0%	0%	0%	0%
Preacher	1%	2%	1%	2%	1%	Nurse	0%	0%	0%	0%	0%
Hunt Cat	1%	2%	0%	2%	1%	Health Agent	0%	0%	0%	0%	0%
Leaf Doctor	1%	1%	2%	1%	1%						

Trade

Virtually all productive rural households in the Grand Anse, as elsewhere in Haiti, are dependent to varying degrees on trading activities. The household is essentially a productive enterprise, it is dependent on cash as a medium of storage, and so products of the household labor must be sold and converted to cash. As touched on in an earlier section, men are typically responsible for planting and tending gardens, but whether it is the man's wife, mother, sister or some other significant female other, women are typically thought of as the owner of the harvest and it is a woman's responsibility to oversee the harvest process and to take the produce to market. Seldom will she store any of the produce, rather she sells it all as soon as possible and then uses the cash like a storage medium, engaging in other types of commerce while also spending the money on household needs, thereby extending the life of the money. This domain of women extends to fruit, charcoal, and chickens (but not fighting cocks). Women more often than men sell goats. Men, on the other hand, sell large livestock such as cattle and mules, they sell wood and more often than women they trade in land. In the survey we did not bother asking respondents about gardens crops since, as seen, essentially all rural Grand Anse households have gardens. But we did ask if, in the past 12 months, any household member had sold lumber, poultry, larger livestock, charcoal land or fish. As can be seen in Figure 9.2, in three of the four zones someone in approximately 50 percent of all households had sold fruit, with respondents in Abriko reporting significantly less sales in fruit (~30%). In three of the zones, 16 to 20 percent of respondents reported approximately the same frequency of sales for larger animals, with the exception being Wo Ginode where almost 30 percent of respondents reporting on this variable. Charcoal varied considerably with a low of approximately 10 percent of households in Voldrog and Fon Kochon having sold charcoal, nearly 20 percent in Wo Ginode, and almost 50 percent of Abriko respondents reporting that someone in the house had sold charcoal. Poultry had similar disparities, with only an approximate 10 percent of respondents in Abriko and Wo Ginode having sold any poultry in the past 12 months, but twice this percentage in Voldrog and Fon Kochon. Land sales appear low, but they are dramatically different: 1 percent in Voldrog, 2 percent in Wo Ginode but 4 percent in Fon Kochon and 5 percent in Ariko. And finally, regarding fishing (discussed in greater detail elsewhere), 10 percent of Abriko respondents reported that someone in their house had engaged in fishing in the previous 12 months, while the figures were 0 or close to 0 for all the other communes.

Figure 9.2: Household Sold at Least One of These Items in the Past 12 Months

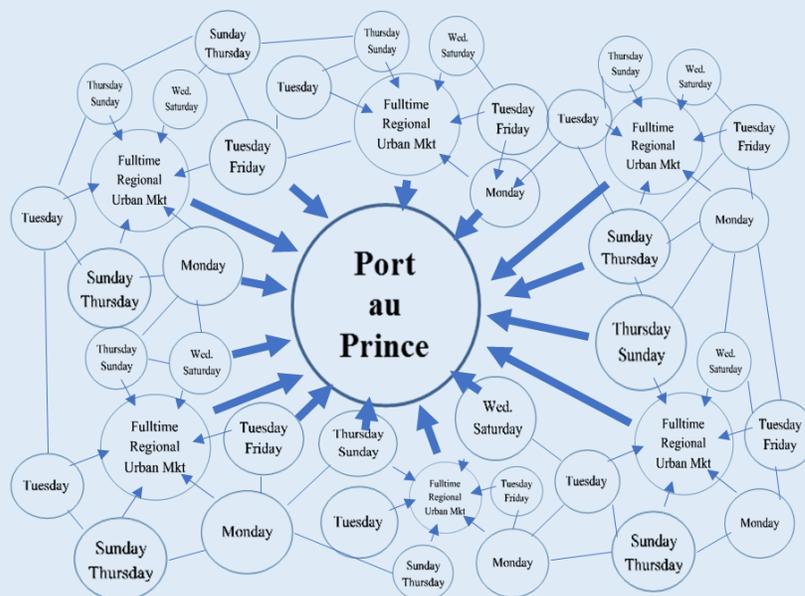


TEXTBOX 9.2: THE INTERNAL MARKET SYSTEM

Completing an understanding the Agricultural-Livestock-Fishing-Charcoal livelihood system described in previous pages, hinges on understanding the Internal Rotating Market system. Throughout Haiti, open air markets occur on alternating days of the week such that people living in any given region are within walking distance of at least two markets per week (see Figure ## below). Montane micro-climates, their differing rain patterns, and the consequently differently timed harvest season make it logical for farmers to sell their crops rather than risk losing them to insect and mold and then store surplus in the form of money. The opportunity has facilitated the evolution of the intense interregional trade dominated almost entirely by women, the *machann* and *madan sara* (see Textbox ##). The system is such that women may sell daily small quantities of items produced by the household- such as eggs, manioc or pigeon peas. But another strategic level of female marketing is for one woman to seasonally specialize in a particular item, such as limes, buy small quantities from multiple farms, accumulate a profitable quantity, and then take them to market or sell them to another intermediary higher up the chain, one more heavily capitalized, who accumulates greater quantities and who is likely destined for a larger town market, city or, the holy grail, Port-au-Prince.

The trade activity of women is a critical part of the household survival strategy. Rare today is the household that does not have at least one female member who purchases goods in the markets for the household consumption, sells products of the household in the markets, and buys and resells the products of other households in these markets. The best way to conceptualize the money from sale of household produce and female marketing activity as a medium of storage, one in which consumption of the stored household surplus can first be sold and, secondly, the surplus prolonged by rolling the cash it yielded over in the market, producing petty profits.

Figure T9.2.1: Internal Rotating Market System



TEXTBOX 9.3: MADAM SARA

The *madam sara* is the itinerant Haitian marketer. Ranging from a micro to an intermediate level wholesaler, she is the principal accumulator, mover, and distributor of domestic produce in Haiti and as such she represents the most critical component in the regional rotating marketing system. She moves from rural to village to town or urban markets. She may buy from a farmer (almost always a female farmer or wife, mother, sister or daughter of a farmer).

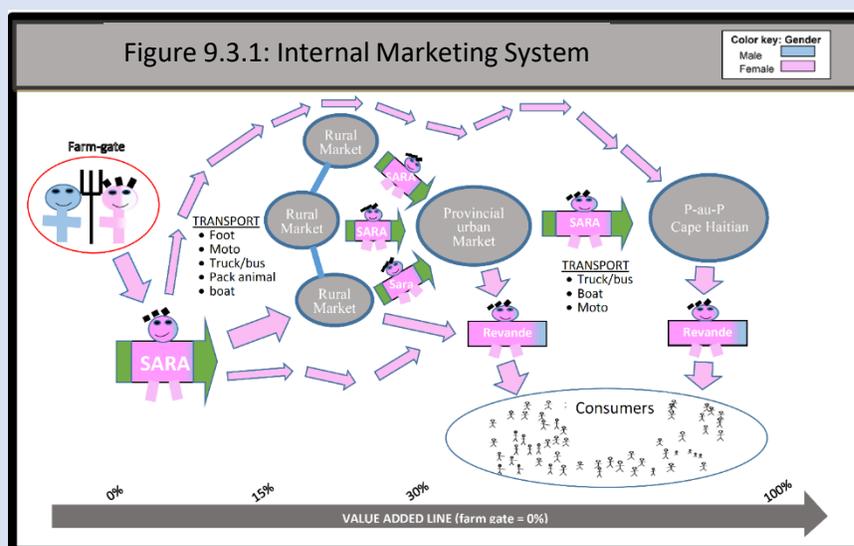


The *sara* sometimes buys at the farm-gate using local networks of family, friends and neighbors, but more commonly she buys at extra-market trading points near the home of sellers (~60%) or at the rural markets themselves (~40%). She then either resells the produce to another *madan sara* at a local market, takes it to a larger more distant rural or provincial urban market for resale to other *sara* or *revande*, or she hauls it to Port-au-Prince to be sold to *revande*. Depending on the distance traveled, her profits vary from 30% to 100% (estimates are based on Stam 2013 and Schwartz 2009).

The *madan sara* capital ranges from the poor market woman with as little as US\$2.00 and who walks to local markets; to the average woman who has US\$50 in capital and a pack animal that she loads with local produce and hauls to provincial city (in this case Jeremie); to the heavily capitalized *sara* who deals with US\$1,000, leases a truck to haul quantities of produce that may measure in tons. If she travels to Port-au-Prince, she typically stores her goods in warehouses open to the public and frequented by other *sara*. She sells her produce in a matter of days. More than half of the time (~64%) she provides goods on credit to *revande*, a retailer, or other *sara* who detail in low level, wholesale redistribution.

To perform as a *madan sara* a woman has to be free to travel, leaving home for several days to a week. In her absence someone has to care for the home, a *de facto* productive business enterprise that never stops processing foods to feed itself and fuel the woman's trade ventures. This means that *madan sara* tend to be women at least 30 years of age with teenage children capable of managing the homestead in her absence.

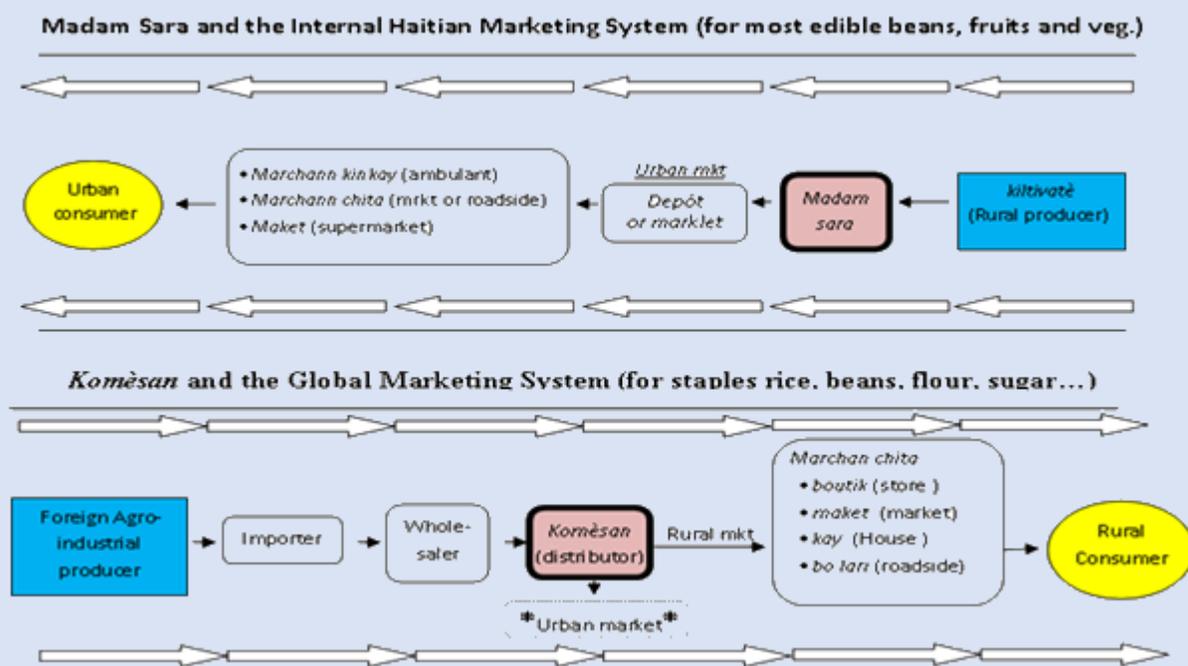
It is important to emphasize that these are mature business women fully engaged in the local economy at multiple levels. Stam (2013) found that 46% of the *sara* in her 163 sample had their own field(s) owned independently of a male spouse; and more than half of these women hired non-familial labor to work the land (84% of the land was inherited).



TEXTBOX 9.4: MADAM SARA vs. KOMÈSAN

As seen in Textbox ##, the *madam sara* is the itinerant Haitian marketer and principal accumulator, mover, and distributor of domestic produce in Haiti. Her opposite is the *komèsan*, the handler of durable staples imported from overseas. While the *madam sara* is moving produce from rural Haitian farm to the village, town and urban markets, the *komèsan* is busily moving imported produce in the opposite direction, from urban to provincial city, town, village, rural market place or boutique. In contrast to the poorly capitalized *Madam Sara*, the *komèsan* is heavily capitalized, often has access to a line of credit and always moves his or her sacks of rice, flour, sugar, beans or cases of edible oil by truck. She/he owns or leases a warehouse, store or storage facilities. The *komèsan* profit margins are as low as 5% and seldom exceed 20 percent. Turnover rates can exceed one month. The *komèsan* in provincial towns employs a devious, if unplanned, tactic, one that undermines the *madam sara* and the internal marketing system: he/she gives the *sara* credit. But not any credit. The *komèsan* offers the *sara* sacks of imported flour, rice, corn, and sugar at no interest. The *sara* in need of cash often takes the bait and is thereby drawn into an insidious web. The *sara* exploits the credit as a loan. She accepts the contract but then turns around and sells the sacks of food for less than cost, for she knows that even if she takes the loss, she can use the money to make far more profit in the internal marketing system of the local produce (by a factor, adjusting for time, of about 25 to 1). But what seems like a good deal for the local market agents, has a hidden, long term cost to local agriculture production and to the economy of the country. The effect is an artificial price reduction for imported goods because the purchaser can now resell the imported food at a price below the real cost. By doing this, by selling the imported foods at less than cost, the *madam sara* has *de facto* used profits from the Haitian internal market system to subsidize imported US and EU grains--crops that have already been heavily subsidized by their respective overseas governments, not least of all the United States, France, and Canada.

Figure T9.4.1: Dueling Economies



Fishing

Fishing was only a significant activity in the commune of Abriko, where 25 respondents (23% of the Abriko sample) reported they fished in the sea, eight of whom (7%) fished both in the sea and in fresh water (see Table 9.2 below). In none of the other communes was fishing highly significant. In Fon Kochon three respondents reported someone in the household fished in the river. The primary technology used in all cases was line fishing, sein (a long net deployed in an area and then physically hauled in, capturing all the fish in that particular zone), and traps/weir (see Table 9.3). A more complete discussion of fishing can be seen in the focus groups and the section on Value Chain maps.

	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Fish River	8	3	0	0	11
Fish Sea	25	1	1	0	27

Technology	Abriko (n = 25)	Fon Kochon (n = 3)	Voldrog (n = 1)	Wo Ginode (n = 0)	Total (n = 451)
Trap	3	1	0	0	4
Sein	8	2	0	0	10
Diving	0	0	0	0	0
Line	14	0	1	0	15
Net	0	0	1	0	1
Total	25	3	2	0	30



Photo 9.1: Fisherman deploying a seine in the Woze River



Photo 9.2: Spear fishing Talapia in the Grand Anse River

TEXTBOX 9.5: SEAS FISHING IN HAITI

Fishing is not a major productive pillar of the typical rural household. Some household do have members that fish. It is a major economic opportunity for a minority of men and selling fish is a significant commercial activity for women, mostly those who have a husband, son or other male family or friend who fish. But people do not produce fish, rather they opportunistically harvest them. It is only a very small fraction of the population that actually engages in fishing and majority of them also depend as much or to a greater degree on agriculture, livestock and charcoal productions. Nevertheless, fishing represents a significant, if underexploited opportunity in the Grand Anse and much of the rest of the country. As the Western third of the Caribbean's second largest island, Haiti has a relatively small continental shelf surface area of 5,860 km², approximately 20% the size of the entire country (27,750); but it has an exclusive economic zone (EEZ) of mostly deep-sea that is 86,398 km², three times the country's landmass and including what could be one of the hemisphere's most productive offshore fisheries (FAO, 2005; Advameg 2013). Yet, Haiti's fishing industry is by contemporary standards based on simple and ancient techniques to an anthropologically fascinating extreme. As if looking back centuries if not millennia in time, fisher folk in Haiti are almost entirely focused on exploiting the limited shelf. The technology they use in this endeavor mostly rudimentary, artisanal strategies that yield small catches. Of the some 26,000 fishing vessels that ply Haiti's coast, only 1,200 are motor powered (MARNDR 2009). The majority are comprised of 14,000 dugout canoes and another 10,000 handcrafted wooden dories, all powered either by paddle or sail. The fishermen who occupy these vessels use technology that differs little from pre-Columbian fishing strategies: hooks, lines, bamboo traps, and fishing spears. Ambulant market women are the primary purchasers of fish and then haul them by foot, on pack animal, motorcycle, or boat. In total an estimated 52,000 men fish, while 20,000 women process and sell the fish. That is only about 12% of Haiti's adult population, but the entire population benefits from an affordable and storable source of protein. For the some 3,000 to 5,000 fisherman who use modern industrial deep-sea fishing gear and who are oriented toward the high end urban market, there are 1,600 purchasers in the fishing communities linked to some 100 urban based fishing purchasing agencies, supermarket and restaurants.



Figure T9.5.1: Haiti's Exclusive Economic Zone
(PEM 2013)

10. Credit and Borrowing

Types

Credit is a conspicuous feature of the economy, particularly regarding trade. Respondents in the survey more commonly borrowed informally--from family friends or patron--than from lending institutions or NGOs (see Figure 10.1). As can be seen in Figure 10.2, even informal loans are often not free. Respondents who reported paying interest on informal loans ranged from 35 percent of borrowers in Fon Kochon to 73 percent in Voldrog.

Figure 10.1: Credit from Family, Friends or Patron vs. Credit from Institution

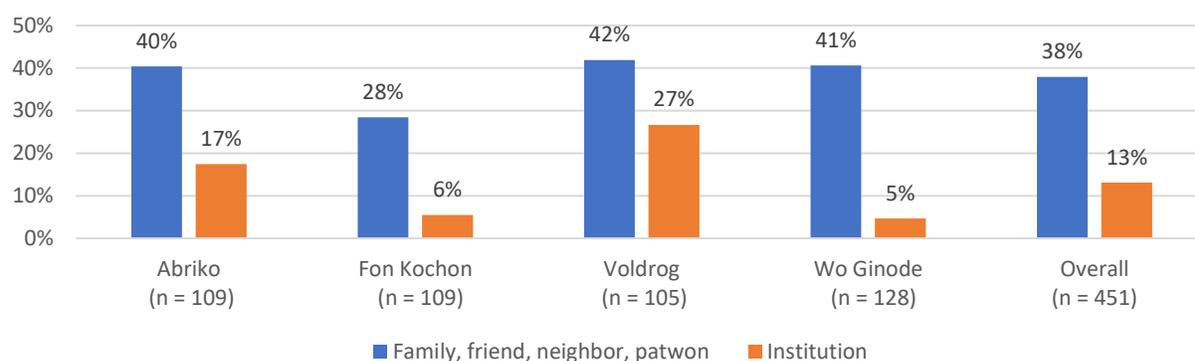
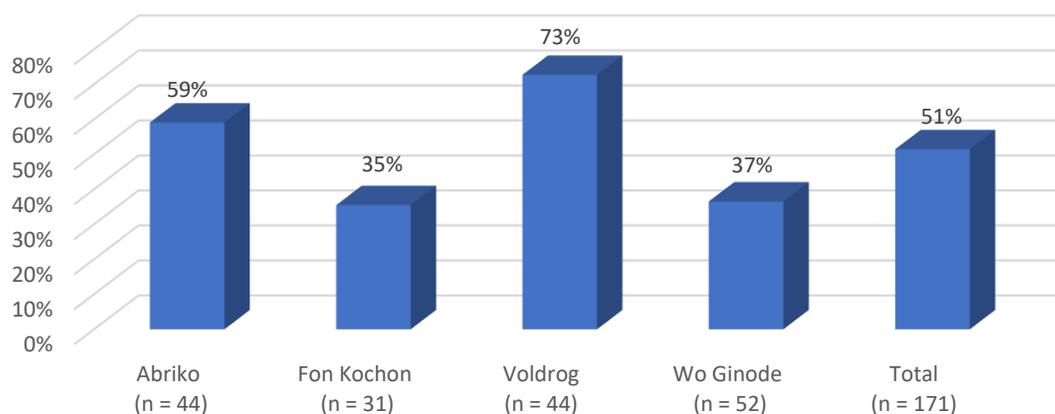


Figure 10.2: Paid Interest on Money Borrowed, from Family, Friends, or Patron



Dekolaj

Another important source of credit is what is sometimes called *dekolaj*: taking merchandise on credit, selling that merchandise for less than its market value, and then using the money to invest in other activities, most often some kind of trade (see Textbox 9.4): 14 percent of female respondents and 16 percent of male respondents reported sometimes engaging in *dekolaj*. The

higher male vs. female use of *dekolaj* came as a surprise; trade largely being a female activity, we fully expected women to engage in *dekolaj* more frequently than men.

Figure 10.3: Sometimes engages Dekolaj
(takes merchandise on credits, sells it for low price to use the money in other activities)

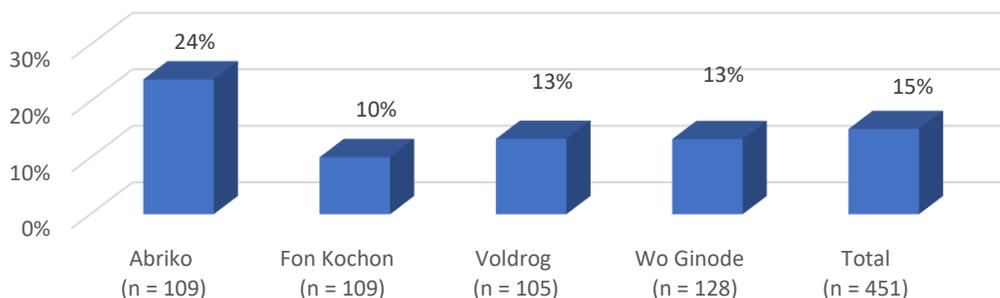


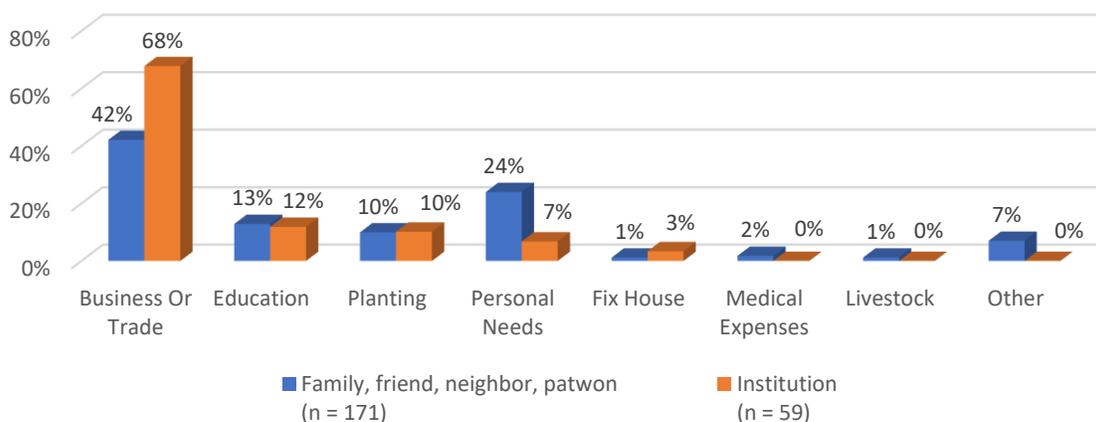
Figure 10.4: Sometimes engages Dekolaj



Uses of Loans

While it is not certain how respondents use “*dekolaj*” money, we did ask about the purposes of informal and institutional loans. The primary purpose of borrowing money is for trade: 42 percent of those borrowing informally used the money for trade while a significantly higher 68 percent of institutional borrowers used the borrowed money for trade, something almost certainly related to demands of the lender (i.e. financial institution, particularly aid agencies, encourage loans for business and are unlikely to lend money for non-profitable endeavors).^{vi} Education was the a distant second most important reason for borrowing money, at 12 percent for informal loans and 13 percent for institutional loans. The third most cited reason was costs associated with planting a garden at 10 percent for informal loans and 10 percent for - institutional loans.

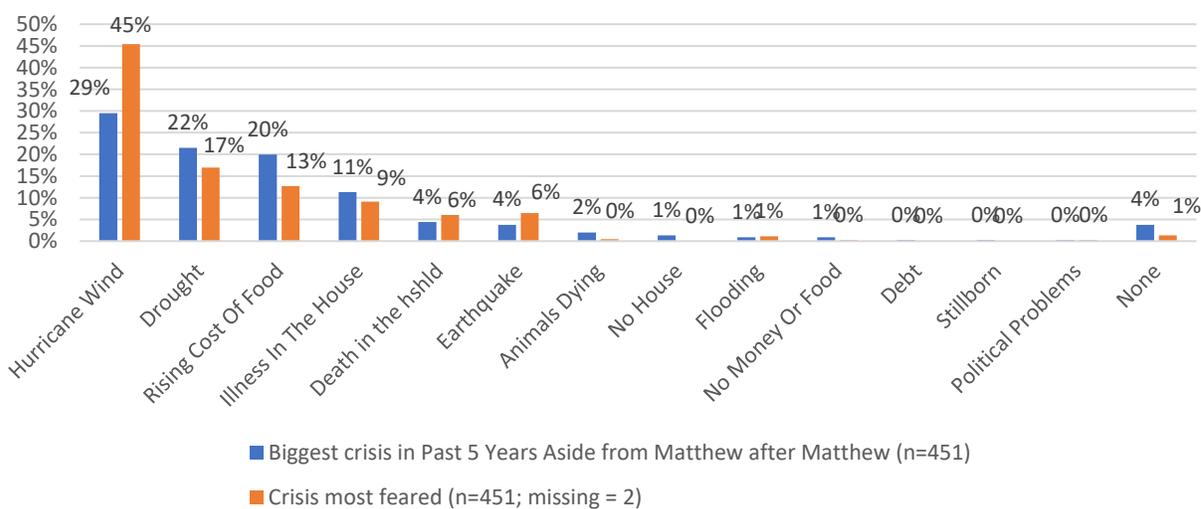
Figure 10.5: Use of Loan



11. Crisis

When humanitarian aid workers talk about crisis and shocks, they usually mean natural disaster such as Hurricane Matthew or the 2010 Haiti Earthquake. But internal household shocks independent of natural disaster are often as or more severe and feared natural disaster or external shocks. This point is evident in the survey. When asked what the biggest crisis in the past 5 years, 425 people said Matthew. Asked to put Matthew aside, what was the biggest crisis, we found that illness in the household was both the 4th most common and most feared shock (11% and 9%), a death in the household was 5th (4% and 6%), and the death of animals was the 7th most common crisis, albeit not among the most feared crisis.

Figure 11.1: Most Common and Most Feared Crises



TEXTBOX 11.1: INTERNAL vs. EXTERNAL HOUSEHOLD SHOCKS

Regarding the significance of internal vs. external household shocks, finding from the 2007 CNSA/CFSVA survey indicated much greater significance of internal shocks than we found in the Grand Anse survey. Three of the five most common shocks CFSVA respondents reported suffering in the previous year could be classified as internal to the household: specifically, accident/illness, death, and animal disease (Table T11.1.1). The highest percentage of people that reported having been impacted by shock was 70.7%; that was for “Increases in Food Prices.” But three times as many people reported that the *most severe shock* the household had suffered in the preceding year was from disease or accident suffered by a family member.

Table T11.1.1: Frequency and Severity of Shocks to Household Livelihood Security

Shocks	Most Common Shock	Worst shock
Increase in food prices	70.7	10.1
Cyclone Flood	63.9	11.4
Drought	54.6	4.8
Irregular rainfall	49.6	1.7
Disease/Accident of household member	47.6	30.8
Animal diseases	47.1	9.5
Crop diseases	37.6	4.5
Rarity of basic food stuffs on the market	29.1	2.1
Increase in seed prices	27.7	1.0
Drop in relative agricultural prices	25.3	1.1
Drop in wages	22.6	1.6
Human epidemia	22.1	2.2
Death of a household member	21.9	11.7
Increase in fertilizer prices	12.9	0.9
Drop in demand	12.7	0.3
Insecurity(theft kidnapping)	11.1	2.1
New household member	10.0	0.5
Cessation of transfers from relatives/friends	4.7	0.3
Loss of job or bankruptcy	3.9	0.9
Equipment tool breakdown	2.7	0.0
Others	2.7	1.0

Source: World Bank 2011 Vulnerability before and after the Earthquake. Policy Research Working Paper 5850. By Damien Echevin. P 20. Date is drawn from CNSA/CFSVA 2007.

Table 11.2: Most Important Activity/Resource When Crisis Strikes
(n=451; respondents could give multiple responses)

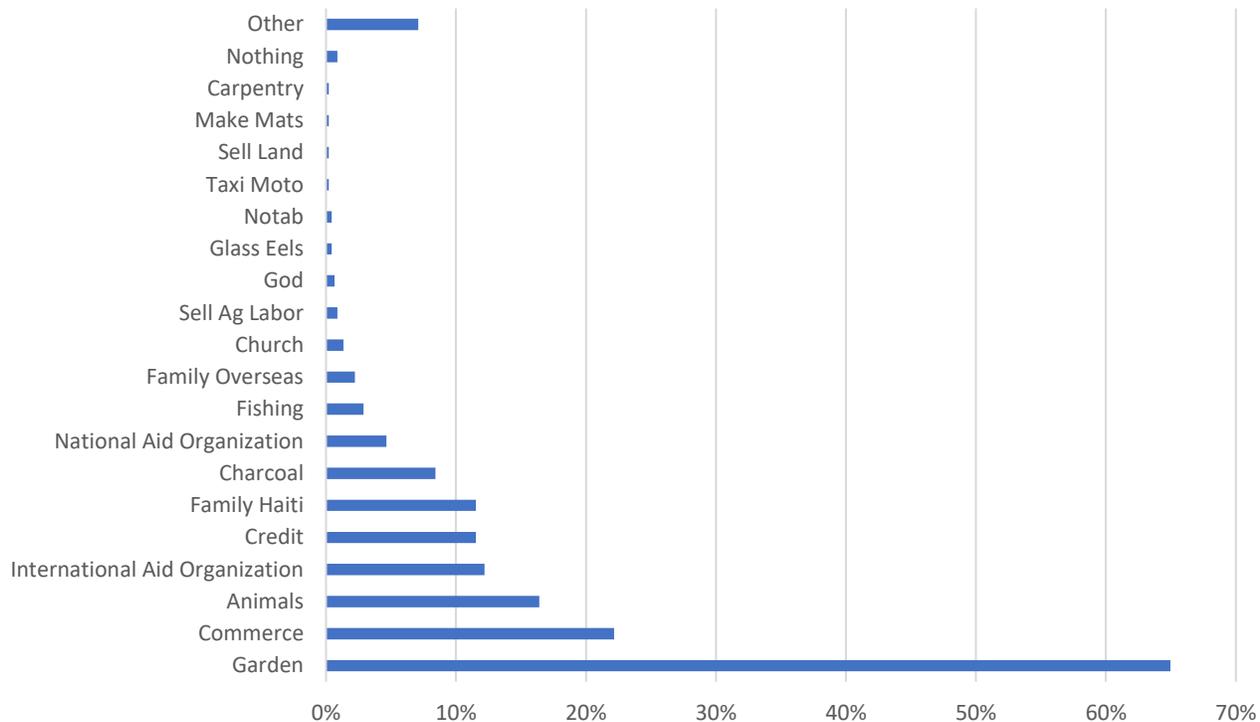


Photo 11.1: Socio-Dig Notab-Survey Team

PART II: VALUE CHAINS

The HEKS EPER, UMCOR and Socio-Dig team developed value chain models for three products of critical importance in the region: fish, trees and goats. These models will help HEKS-EPER gain further understanding of the local economy and can be drawn on for insights into how prosperity can be promoted in the region.

Development of the value chains began during the focus group phase of the research where we explored the value chains with groups of respondents and then identified key experts as informants for additional follow-up information.

Socio-Dig subsequently adapted its Livelihood and Marketing Pre-Crisis Intervention Mapping Technique (LaM-PIMPT) to create three detailed value-chain maps for each product. In addition to providing a visually interesting and effective means of conveying information about market chains, the maps will enable HEKS-EPER to more effectively evaluate and meet needs before and after crises.

12. Mapping Strategy

The mapping strategy used here is based on three steps. First, drawing on what was learned in focus groups and the survey, we provide a brief written description of production, processing and marketing of the item. Specific points covered in the description are also transport, who the consumers are, and sexual and age division of labor and ownership. We then provide graphic maps of these processes, including production maps that depict the process of production, indicating gender roles, labor process, technologies, and relevant tenure (ownership). We then present a map of the process and market chain. This map includes graphic depiction of type of measurement (quantity, volume or weight), gender and status of the person who markets the item, transport, and the market venues.

- Types of product
- Roles
- Other Stakeholders
- Production
- Technology
- Tenure & hiring
- Financial underwriters
- Source of financing
- Packaging & measurement
- Package and Transport
- Uses
- Byproducts
- Sale
- Market Venue
- Consumers
- Sexual and Age Division of Labor
- Marketing organization
- Work organization
- Afflictions
- Opportunities
- Most significant relationships
- Opportune points of intervention

A final map includes both production and processing as well as identification of points most opportune for making interventions to strengthen the market chain. Very importantly, the final

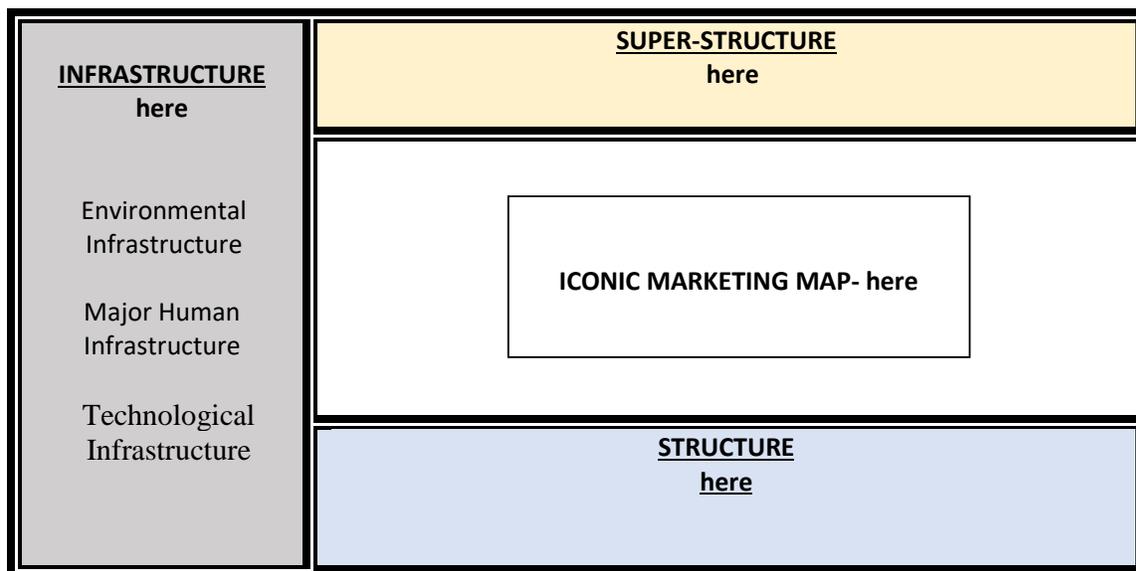
map is embedded in a description of the relevant Infrastructure Social Structure, and Super structure.³ To elaborate, these three categories are defined as follows,

- Infrastructure
 - natural environment: sea, forests, rivers, savannah, mines, foliage, fishing grounds
 - human infrastructure: demography, roads, transport, communication systems, technology
 - Defined by specification of the dimensions of the resources, such as amount of coast, kilometers of road, quality.
- Social Structure
 - Economic systems: Markets, stores, trade centers
 - Institutions: police, schools, associations, NGOs, ministries...
 - Defined by identification/existence of institution and measured in strength on a scale of 1 to 5, one being weakest and 5 strongest (indicated by number of asterisks, “*”).
- Super Structure
 - Ideas, religions, taboos, celebrations
 - Defined by identification/existence and in the case of stringent religious taboos or institutions, measured in strength on a scale of 1 to 5, one being weakest and 5 strongest (indicated by number of asterisks, “*”).

The Infrastructure, Structure and Superstructure are the constraints of the chain. They define what changes to the chain are practical within the context of what is available in the natural and social environments and the cultural beliefs and practices of the people of the Grand Anse. It may be that a development intervention can overcome a limitation in one or several of these spheres, but the current limitations must be identified and understood. The idea is not to exhaustively explain each category, but rather to catalogue the existence or absence of those constraints of opportunities that are relevant. In this way, the strategy narrows the focus of discussion to a framework of practical options, thereby helping to catalyze the decision-making process regarding development interventions.

³ See Annex for a description of the theoretical framework, Cultural Materialism.

Figure 15.1: Template for Embedded Marketing Map



13. TREES

Trees and deforestation are topics that greatly concern international conservationists and aid organizations. Haiti has reportedly gone from 30 percent forested in 1940 to 10 percent in 1970 to 2 percent at the turn of the millennium (Michel 2001). Beginning with the now famous 1987 National Geographic picture, it has been common for researchers to site aerial photographs illustrating the radical difference between foliage on the Dominican Republic vs. the Haitian side of the border. Ignoring that these photos were taken in areas where the Dominican Republic has a well-guarded national park whereas, with onset of political turmoil in 1986, Haitian authorities abandoned this area of the border, there are some problems with the extremity to which Haiti has been presented as completely deforested. In 2014, Churches et al summed up the exaggeration when they compared Landsat Thematic Mapper (TM) imagery and, using international criteria for deforestation, determined that Haiti had about 30 percent forest cover, about the same as the United States, France, and Germany, and much higher rate than Ireland and England (see Churches et al, 2014).



Photo 16.1: Famous 1987 National Geographic photo contrasting tree cover on Dominican vs. Haitian side of the border (James P. Blair)

Whatever the case, that much of Haiti suffers deforestation significantly more severe than in the past cannot be gainsaid. To know this one does not need scientific studies. One has only to look



Photo 16.2: Mango Tree in Renal, note the exposed roots are some 6 to 8 feet above the road, a measure of disappearing soil.

out the window of the plane when flying into Haiti to see the billowing underwater clouds of silt, topsoil washed down from the mountains. In those mountains, spectacular gully erosion and exposed tree roots serve as type of meter for the speed with which erosion has been occurring (see Photo 16.1, left). In the valleys, houses that have almost disappeared under ground serve as barometers of erosion as well. Moreover, for the purposes of understanding how to help rural Haitians, trees are not only a check against erosion, they are a critical resource for peasants. Below, we have divided the topic into the categories of Fruit, Lumber and Charcoal.^{vii}

FRUIT

Type

The Grand Anse has at least 26 species of fruit tree. Mangos are especially important, not only for the Grand Anse, but all of Haiti. In 1990 Haiti was the 2nd largest importer of mangos to the US. Haiti still ranks 6th overall. Moreover, this is only one type of mango—the Francique. Only 20 percent of mangos in Haiti are Francique and only twenty percent of the Francique grown in Haiti are exported (see Schwartz 2015). The Grand Anse does not participate in exporting Mangos. According to focus group participants, Francique mangos do not grow well in the area. Major types are fil, kòn, kawòt, kakòn, laben, and, labich. In the Grand Anse as elsewhere in Haiti, mangos and other fruit trees are best described not as a planted, cultivated and cared for perennials, but as a prolific and appreciated weeds, sprouting up from discarded seeds in moist ravines hillsides and slopes.

Primary Stakeholders

Owners. Market women.

Secondary Stakeholders

Pickers. Consumers.

Production

Fruit tree cultivation strategies are best characterized as opportunistic rather than deliberate or planned. Similar to elsewhere in Haiti, farmers in the Grand Anse do not deliberately germinate, nurture and plant trees. They will nurture a seed that sprouts on its own. They may even dig up the sapling and move it to a preferred location. But the only nurseries that have existed in the region were all either associated with the state or, more commonly, an NGO. Nevertheless, farmers report wanting trees, particularly fruit trees and particularly mango, breadfruit, coconut and citrus trees. If given the seedlings, they will plant and nurture them.

Byproducts

Medicinal leaves, Charcoal, Lumber, Roofing thatch. Seeds

Technology

As seen in the Baseline section of the report, Grand Anse farmers use neither pesticide or fertilizer on their fruit trees. Regarding the pruning of trees, farmers do not deliberately prune nor clean trees to allow greater sunlight and dispatch dead branches. Regarding material technology, people in the Grand Anse communities use only machetes and simple picking poles

Main Work Organization Structure

Household organized work organization with some semi-professional pickers.

Most Significant Relationship in Value-chain

Land tenure/ownership of trees, kinship.

Sexual and Age Division of Labor

In the event the fruit is to be sold, it is women who will orchestrate the harvest, transport and sell the fruit. The actually picking of the fruit is the task of boys and men. Children will help with all the tasks. Boys are more likely to help pick, sort and transport fruit. Girls will sort and help their mothers package, transport and sell the fruit.

Tenure

Trees on family land are owned and can be exploited by all the family, even extended relatives. The fruit from trees on hereditary land that has already been divided or on purchased land are thought of as the possession of the woman, but in the name of the household.

Financial underwriters

Aid agencies underwrite the costs of nurseries.

Source of financing

N/A

Hiring

Women may pay men to harvest a tree for her and she may pay for transport of the produce.

Sale

Drawing on focus group discussions, the bulk of fruit probably does not get sold but rather eaten by the owners, neighbors and friends. Coconuts and cashews are exceptions.

Measurement

Fruit is packaged and sold at the wholesale level in *panye* (basket) and then detailed in small piles (*lo*) of 3 to 4 fruits. However, market women sometimes buy entire trees, harvest them and haul the fruit to Jeremie for sale. In this sense fruit is sold wholesale by volume and retailed in quantity.

Package and Transport

To reach main roads, women carry the fruit by foot or pack animal or they pay moto-taxis. If they are destined for Jeremy, upon reaching a/the main road they will use public taptaps, buses or truck. In the event that an entire tree is harvested, they may hire a small truck

Market Venue

Fruits are sometimes wholesaled at the tree to a single buyer who will harvest the entire tree. It is typically sold per basket at markets and ultimately detailed locally in front of homes, at crossroads, and in markets. However, most fruit will be either eaten or sold retail.

Consumers

Little fruit is shipped outside the area. Not even to Port-au-Prince. Most fruit is sold locally to consumers or, as explained above, it will be sold wholesale in baskets to women who then detail the fruit in *lo* (piles of 3 to 4 pieces of fruit) to final consumers.

Afflictions

Diseases have reportedly increased in recent years. Farmers complain 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.

Opportunities

- Treating the insect problem.
- Nurseries, tree planting.
- Commercialization and/or processing of fruit into juices and preserves is an economic opportunity that could be promoted.

LUMBER

Types

There are no fewer than 27 major types of wood used as poles and/or sawed into boards. Some fruit trees become lumber. Mango is especially valued as lumber and prized for constructing dories. Breadfruit and avocado trees were mentioned in focus groups and the survey as a good source of lumber.

Primary Stakeholders

Owners, sawyers, transporters, wood vendors in markets.

Secondary Stakeholders

Carpenters. Homeowners, builders.

Production

Similar to fruit trees, strategies regarding the cultivation of wood trees are best characterized as opportunistic rather than deliberate or planned.

Byproducts

Medicinal leaves and charcoal.

Technology

Farmers use machetes to fell trees. They use long, dual-handled hand saws to make boards.

Sexual and Age Division of Labor

Cutting trees is, like picking fruit, an entirely male undertaking. However, unlike fruit which women sell, the marketing of lumber is a male undertaking, something unusual in that most marketing of local produce is dominated by women. Indeed, handling of cattle, lumber, and

fishing might be the only three productive activities that can be characterized as exclusively male domains. Other male activities, such as planting gardens, are readily assumed by women. In the absence of men, women will even pick fruit and make charcoal.

Tenure

Lumber and wood trees are typically owned by men. A person can sell a living tree to another person. After sale the tree can remain standing on the original property several years.

Hiring

The actual cutting of trees and sawing them into lumber is considered a skilled occupation accomplished by paid craftsmen.

Main Work Organization Structure

Professional sawyers who work in 2-man teams.

Most Significant Relationship in value-chain

Land tenure/ownership of trees. Buyer and seller of trees. Buyer and sellers of boards.

Sale

Lumber is critical both for its uses and to sell in exchange for income. Campeche (logwood) and Grigri (rose wood) are used as posts and beams for houses. Mahogany, oak, cedar and at least a dozen other hardwoods are hand sawed into boards and used to make house walls, furniture, caskets or sent to Jeremie, Miragoane and Port-au-Prince for resale, providing an important source of household income.

Packaging and measurement

Poles and boards are sold by quantity (dozens), but with an appreciation for size and type.

Package and Transport

Boards and poles are carried by the owner, porters or pack animal to the nearest road and then loaded on moto taxi, bus or truck. They are sometimes, but rarely, shipped on boats.

Market Venue

Poles and lumber not sold in the rural areas are transported to Jeremie for sale or to Miragoane lumber market.

Consumers

Poles may be used by anyone but boards are best thought of as a raw material to be processed by skilled craftsmen. The primary purchasers of wood are carpenters in home construction, or making furniture and caskets.

Afflictions

Diseases have reportedly increased in recent years. Farmers complain 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.

Opportunities

- Planting of lumber trees
- Preparation of lumber and sale as exotics woods

CHARCOAL

Types

The branches of trees cut for lumber or any tree felled by foul weather or otherwise, becomes fuel for local cooking and charcoal. Young Birdcherry, Lucena, and Acacia, as well as any other tree that farmers would prefer not to nurture, are harvested as saplings to make charcoal. While participants in focus groups insisted that they never cut a healthy fruit tree to make charcoal, any tree *may* become charcoal. Fruit trees that get old and do not yield will become both lumber and charcoal.

Primary Stakeholders

Owners of charcoal, transporters, vendors, buyers, consumers.

Secondary Stakeholders

N/A

Production

The branches or samplings are cut, cleaned of leaves, piled up with dry leaves interspersed among them, then covered with dirt and green leaves to make a type of stove, whereupon the inside of the pile is lit. The wood smolders for several days; half-burned throughout, it becomes charcoal. As mentioned above, any old or fallen tree may be transformed into charcoal, but a major system of production is the harvesting of young trees on agricultural plots, something that fits into a 5 to 8-year fallowing cycle whereby farmers clear the land, make charcoal with the cut brush, then plant gardens with quick growing bean, melons, a variety of tubers, including yams and manioc. After the seasonal crops have been harvested, yams and manioc continue to grow for several years, their roots edible roots harvested as needed. Meanwhile, the garden is once again becoming a thicket of small trees. When the manioc and tubers have been harvested, the farmer eventually returns again to cut the saplings, make charcoal, and then plant a new garden.

Byproducts

Medicinal leaves

Technology

The entire process is accomplished with machetes.

Main Work Organization Structure

Household organized labor. Some professionals.

Most Significant Relationship in value-chain

Land tenure/ownership of trees. Transporters.

Sexual and Age Division of Labor

Men more than women clear gardens, pile the sticks, cover and fire the charcoal. Women and children play a more significant role in sorting the charcoal and putting it into sacks. The man will help his wife or female relative bag, move, and ship charcoal to the city for sale. Some men will accompany the charcoal to the city for sale. Retailing charcoal is, like most trade in local produce, a female activity.

Tenure

With the exception of those professional charcoal entrepreneurs mentioned above, women are typically thought of as the owners of any charcoal that is produced in the name of the household.

Hiring

Farmers often hire charcoal specialists, paying them a part of the harvest in exchange for helping them clear a garden and process the harvested sticks into charcoal. Some professional charcoal entrepreneurs will also buy uncut fields to process into charcoal for sale. And some farmers will simply sell the wood from a cleared field.

Sale

Charcoal is unquestionably one of the most important sources of income for farmers in the Grand Anse. It is entirely a cash crop. Virtually all the charcoal produced is destined for sale in urban areas. Almost as a rule, rural farmers do not use charcoal for cooking fuel but rather wood. It is noteworthy that charcoal is a critical resource when crisis strikes, either regionally or in terms of household shocks. Households with no animals or mature trees to sell will turn to the production of charcoal during hard times. After Hurricane Matthew charcoal made from the enormous quantities of fallen trees and broken branches represented a veritable economic boom, amounting to as much as \$35 million in income for the Grand Anse (estimate from HEKS EPER COP).

Packaging and measurement

Charcoal is sold in volume. Wholesale, it is packed into polyethylene sacks. The standard charcoal sack is actually two sacks sewed together lengthwise. A single double-sack may weigh as much as 150 lbs. Sacks are sold in lots of 10. Charcoal is retailed by the *mamit* (quart) or the *lo* (small pile).

Price

A *lo* (lot) of 10 sacks fetches \$700 to \$800 Haitian dollars (US\$50 to \$70). If transported to Port-au-Prince the increase can be 70 to 100% in value.

Transport

Charcoal is stacked by the roadside and picked up by large trucks that ply the rural roads. On the coast it is loaded onto sailing vessels. Almost all is destined for Port-au-Prince. Very little goes to the city of Jeremy. Transport to Port-au-Prince is \$25 Haitian dollars per sack (~US\$2)

Market Venue

Charcoal is sold to buyers from the city or hauled to the city by the owner on one of the many trucks engaged in the transport of charcoal and sold at charcoal depots, special areas where charcoal is traded in bulk.

Consumers

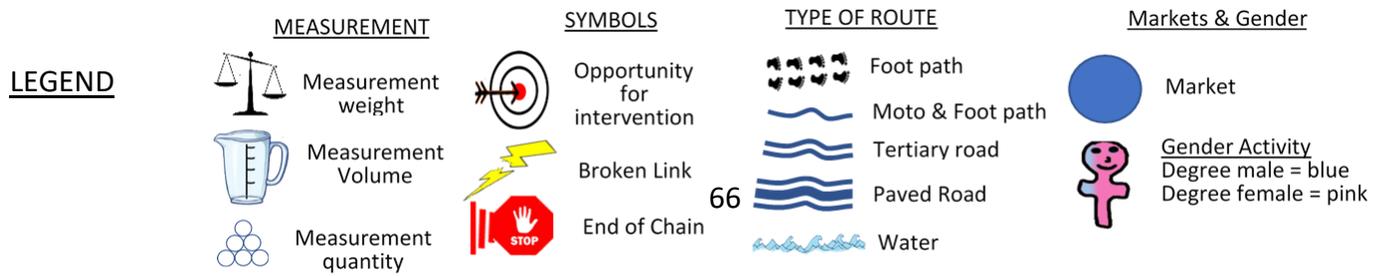
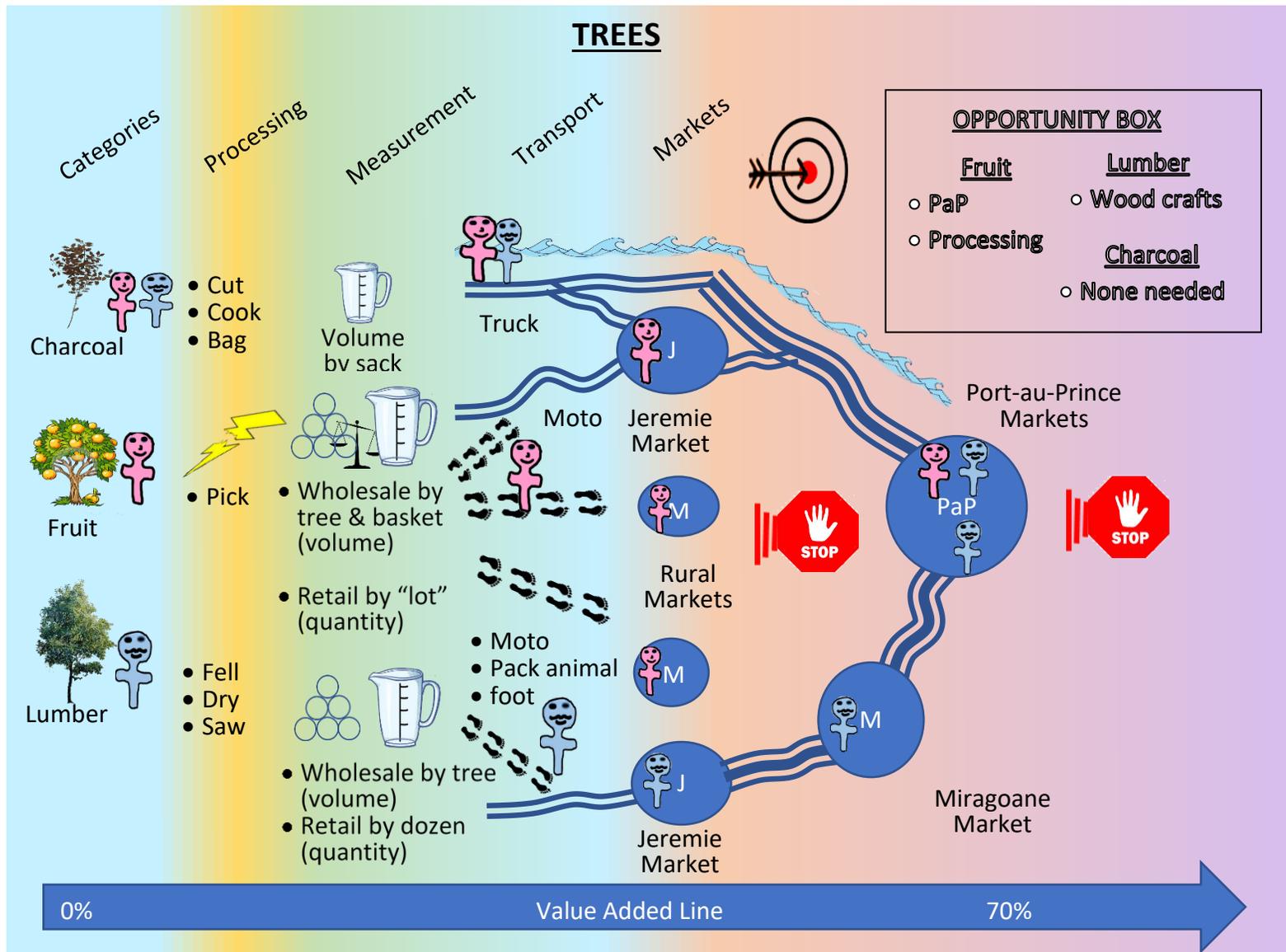
People in rural areas do not use charcoal as cooking fuel, rather they cook with wood. Charcoal is the primary cooking fuel in urban centers, far more common than propane gas.

Afflictions

None

Opportunities

- Improved methods from transforming wood into charcoal can reduce losses by as much as 40 percent.
- Making briquettes from dried leaves and sugar cane baggage



INFRASTRUCTURE

Natural

- ~600 Km² Forested
- Altitude
- Dry forest to humid forest reserves
- 26 species of fruit tree
- 27 plus species of hard woods
- All can be converted to charcoal
- Abundant land for charcoal scrub/garden crop cycle rotation

Demographics

- Relatively low population density to productive land as compared to elsewhere in Haiti

Human

- Few rural roads/Poor condition
- Rural areas: Moto and animal
- Jeremie to Cayes ½ paved road 65 km
- Okay to PaP: Paved 154 km
- 80% telecommunication
- Grid electric only in Jeremie

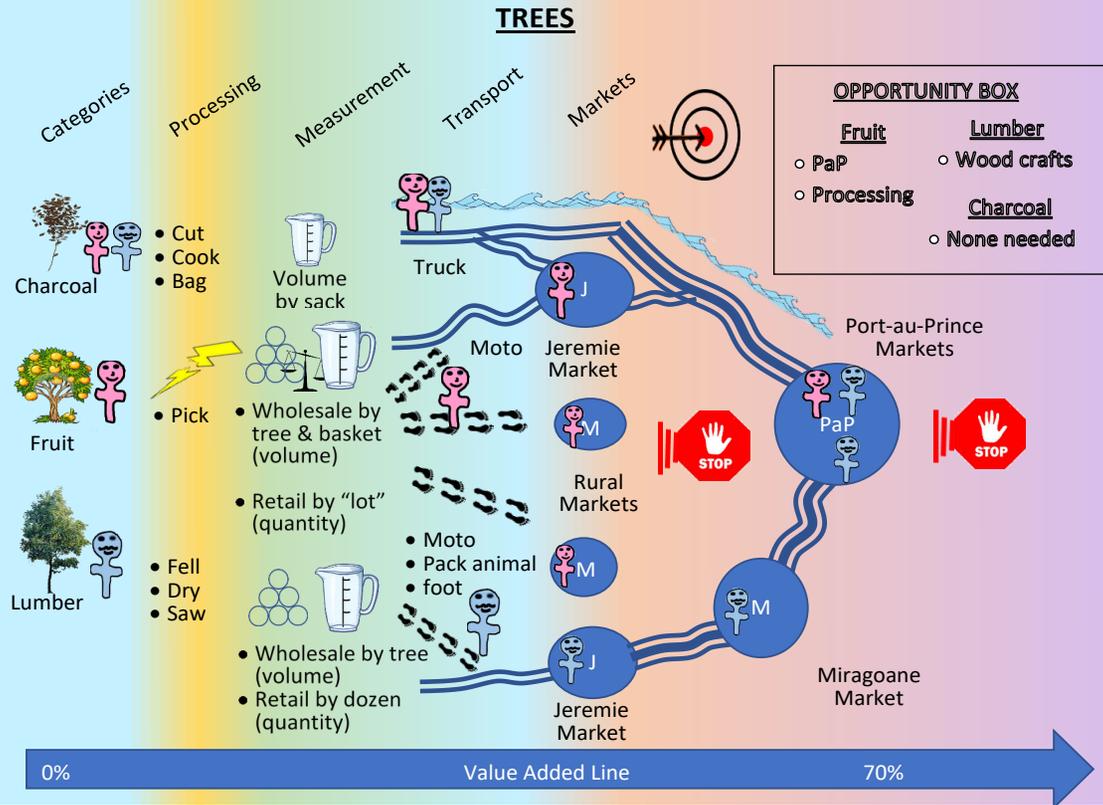
Technology

Semi-Industrial/Modern Fishing

- Hand saws
- Machetes

SUPER-STRUCTURE/IDEOLOGY

Weak Conservationist
Belief that some trees are inhabited by spirits



STRUCTURE/INSTITUTIONS

<u>Strength of Existing Critical Social Structure/Institutions</u>		<u>Non-Existent Critical Structure/Institutions</u>	
• MANDR	*	• Churches	***
• Associations	**	• Mayor/Azek/Kasek	**
• Schools	***	• Police	**
• Universities	*	• `Reciprocal & family labor	***
• NGOs	****	• Formal sector purchasers	*
• Restaurants	*	• Informal Market system	*****
•		• Hshld and Kinship Labor	***
		• Input stores	
		• Forestry agents	
		• Extension services	

14. GOATS

Types

Local goats and improved varieties, meaning imported stock, with no distinction made between different types within the local or imported goat categories. Goats are graded by age, baby goat, young goat, and adult.

Primary Stakeholders

The owner of the goat, consumers, “brase” (professional goat trader who will aggregate goats for resale).

Secondary stakeholders

Restaurant owners, barefoot veterinarians, government officials providing papers in market.

Production

Goats are minimally managed. People predominantly tie rather than corral or range the goats. They are only free-ranged for short periods of time after harvests. Goats in the Grand Anse are not branded. Rather people can demonstrate ownership by the fact that goats bond with and recognize their owners. They are sometimes bred deliberately, but also often simply ‘get bred’ on their own when a male breaks loose or takes advantage of being corralled. Bucks are sometimes castrated at 1 year of age to increase size and meat yield. They are not cut but rather the scrotum is pinched between two blocks of wood and their testicles are crushed with a rock.

Work organization

Organized around the household labor supply.

Package and Transport

The animals are typically transported live. One person can walk with 10 goats. One goat can be led and the others will follow. When transporting the animals to the city, they are simply hung by their feet, live, from the sides of the vehicle.

Processing and packing

- No specialists are needed to slaughter or butcher goats, the skills are common
- The animals are usually killed on market day
- Meat not sold is washed with sour oranges or lime, salted, sundried and then stored for household consumption. However, dried goat meat is not sold in the way that pork is sometimes dried and sold.
- The animal is sometimes quartered but often pieces are simply cut according to demand of client.
- All of the animal can be sold or is eaten: brains, intestines, blood, marrow, bone, and sometimes even skin. Bones in the feet are sold to play a child’s game known as Wosle (similar to jacks). Only hooves, horns, and crushed bone are discarded.

Technology

Knife and machete. Bucks are “castrated” by smashing their testicles with a rock.

Tenure

Households typically own their own goats. However, better off individuals will tenure goats out to others: the arrangement is that they share any medical expenses. The offspring are shared 50/50. Although life expectancy is ~10 years, the typical Grand Anse goat only lives to be 2 to 3 years of age and then either slaughtered or sold for slaughter.

Hiring

All is done with household labor except sometimes slaughter and processing. Killing is not considered an exceptional skill. Anyone may slaughter a goat. Even children might slaughter a goat. Women more often than men butcher the animals. The pay for butchering a goat is ½ to all of the neck meat.

Financial underwriters

Aid agencies have participated in underwriting the costs of importing improved stock and subsidizing vaccination campaigns. Goat meat might be sold on credit but not live goats.

Source of financing to Purchases Goats

Principally gardens and livestock and to a lesser extent fishing.

Sales

The pattern is for households to purchase young female goats, care for them until they have a litter, and then sell the offspring before they begin to reproduce. The woman of the household might sell the goat live or slaughter the goat and retail the meat in the market on the neighborhood. However, selling meat can be risky as she might not find enough customers.

- Goats are sold primarily for the following reasons
 - Food expenses
 - Medical bills
 - School Tuition
 - Finance the Planting of a Garden
 - Purchase fishing gear/traps
 - Invest in Commerce

People will occasionally slaughter a goat for household consumption. Primary reasons goats are killed for household consumption is

- Ceremonial sacrifice or
- Consumption associated with the birth of a human baby

Market Venue

Goats are sold in the livestock section of open markets. There are no slaughter houses. Goats are killed anywhere there is ground and outside of houses or buildings. The meat is sold in the markets, by the street or the woman may walk with the meat and try to sell it.

Consumers

Goat meat is detailed out by the piece to purchasers for household consumption or to informal restaurants or cooks.

Measure

Goat meat is sold by volume, with no standard measuring instrument.

Prices and Profits (Value added line)

Goat traders are known as “Brase”. A typical Brase can handle about 10 to 12 goats, worth about 10,000 to 15,000 *goud*. Goats are most expensive during times of celebrations, December and January when there are religious celebrations, and March through July when children have First Communion. They are least expensive in September when parents tend to sell goats to pay school tuition. The increase in value from rural area to Jeremy is 50%; the increase to Port-au-Prince is 100%. There is a significant price differential between regional Grand Anse rural markets, as much as 20% in prices.

- Mouton (sheep) is typically sold as goat meat. All over Haiti, there is a tendency for people not to admit to killing or eating sheep. Sheep are considered holy, gentle and to eat one may—it is believed—result in ailments, including skin lesions and/or sprouting sheep hair.
- Despite the extreme levels of protein deprivation in rural areas, particularly among children, goat milk is seldom consumed. It is generally thought of as unclean. Nor is it sold or traded.

Sexual and Age Division of Labor

Men and boys are more often responsible for caring for goats than are women and girls. Women tend to buy and sell household goats significantly more frequently than men. However, men tend to be ‘brase’ (goat traders) more commonly than women. A detailed breakdown of tasks by gender is given in Table 17.1.

Female	Percent Female Activity
Tend/change	20%
Castrate	<10%
Transport to market	70%
Sell	70%
Purchase for slaughter	90%
Kill and butcher	70%
Retail fresh meat	90%
Retail cooked meat (restaurant)	99%
Purchase for intermediary retail	30%
Transport to urban markets	30%

Uses

Goats are rarely milked. People in the area do not make cheese or any other product from milk. They are most often slaughtered for meat. Almost the entire animal is eaten, including bone marrow. The only by products are skin, horn and hooves. The skin is sometimes used to make drums. It has little to no cost value. The horns and hooves are discarded

Byproducts

- Despite the existence of a tanning factory in Carrefour Haiti and attempts by factory representatives to set up goatskin purchasing networks in the Jeremy area, there is no active market for goat hides, which are mostly thrown away, consumed, or used to make seats for inexpensive chairs.
- Despite the existence of thriving horn-craft production in Port-au-Prince, people in Jeremy region do not sell horn.

Afflictions

Goats suffer from many afflictions, including anthrax. They should be vaccinated. They are susceptible to exposure to rain and cold. They can develop diarrheal disease from abundant tender foliage that comes after rains.

Opportunities

The principal advantage that could accrue to entrepreneurs investing in goats might come through,

- Dependable provision of vaccines and medicines (input boutiques)
- Fencing, corralling and housing next to homes could increase survival rates of goats
- Corralling/Stockage for bulk sale or shipment
- Fattening
- Fencing, corralling, fattening with supplements and possibilities for meat processing, packaging and shipment to markets in Port-au-Prince (all would require significant investment from an entrepreneur, including cold storage)
- Price differentials between rural and urban markets (50% greater in provincial cities and 100% plus in Port-au-Prince)
- More intensive programs of selective breeding
- Harvesting of milk for household consumption
- Cheese consumption and/or production
- Improved breeding stock with goal of milking
- Use of skin or sale of skin to tannery in Carrefour
- Use of horn to make jewelry or sale to jewelry makers in Port-au-Prince

Given the nutritional value and the need, milk is probably the single greatest opportunity for intervention. Exactly one focus group participant admitted to milking goats. It is overwhelmingly looked down on and eschewed with no opportunity for economic gain through selling the milk

or turning it into cheese, something true not just in the Grand Anse, but throughout Haiti. Yet, nutritionally, goat milk might be the single greatest opportunity for protein capture in what is one of the most nutritionally deprived populations in the Western hemisphere. Virtually all families in rural Haiti, and the Grand Anse in particular, have one to two goats at some point throughout the year.

Figure 17.1: Ethnographic Mode of Production Map for Goats

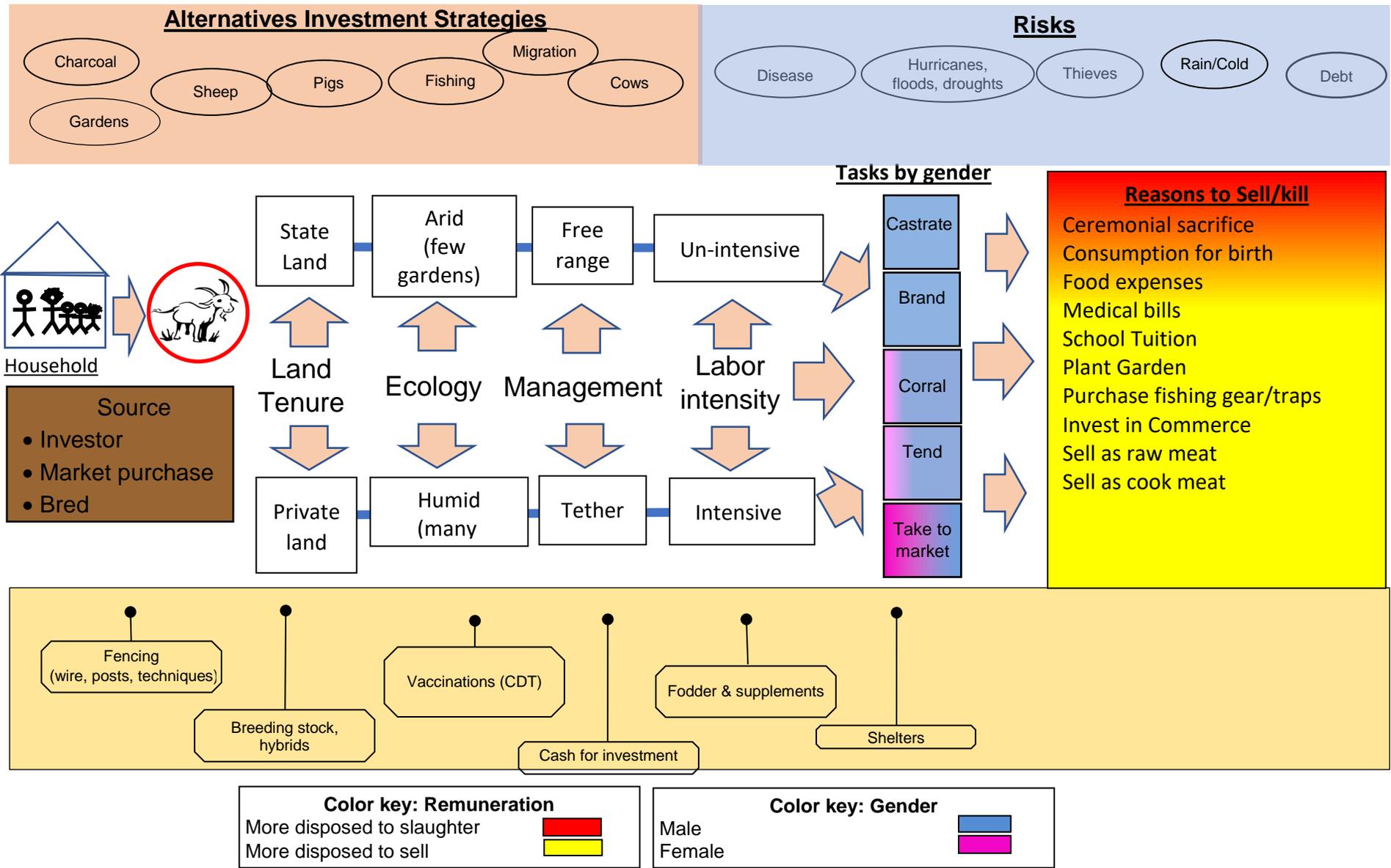
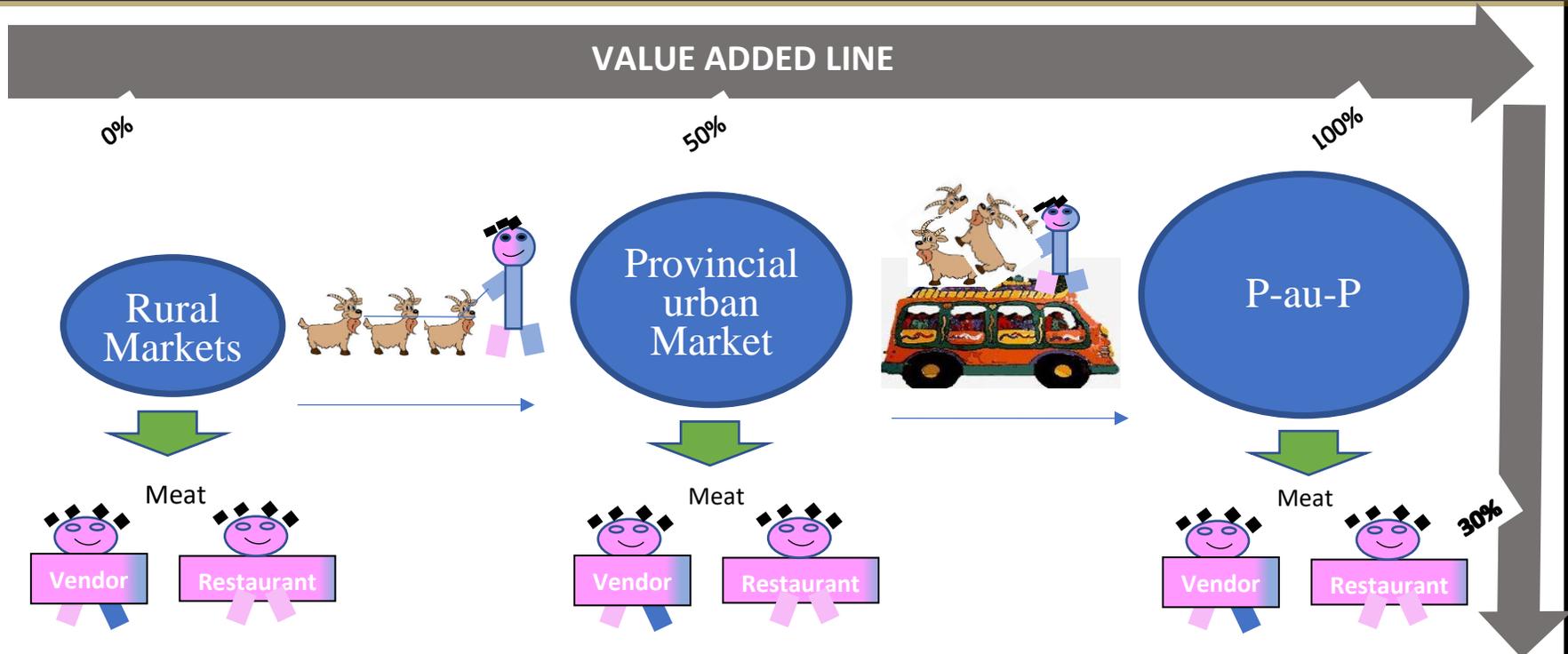


Figure 17.2: Goat Intermediary Marketing Map

Color key: Gender
 Male 
 Female 



Goats are purchased in local market, thereby beginning the non-producer market chain. Meat vendor (8 of 10 of whom are women) or restaurant owner (all of whom are women) buy, slaughter and sell the meat directly to the general population or a goat intermediary (8 of 10 of whom are male) purchases the goat and others for transport and resale provincial urban market at 50% over cost; the goats are then sold for slaughter to meat vendor or restaurant owner; or itinerant marketer takes them to P-au-P market for sale at 100% over original rural market price. For resellers cycle is repeated ~40 times per year

Figure 17.3: Goat Marketing Map

Color key: Gender
 Male
 Female

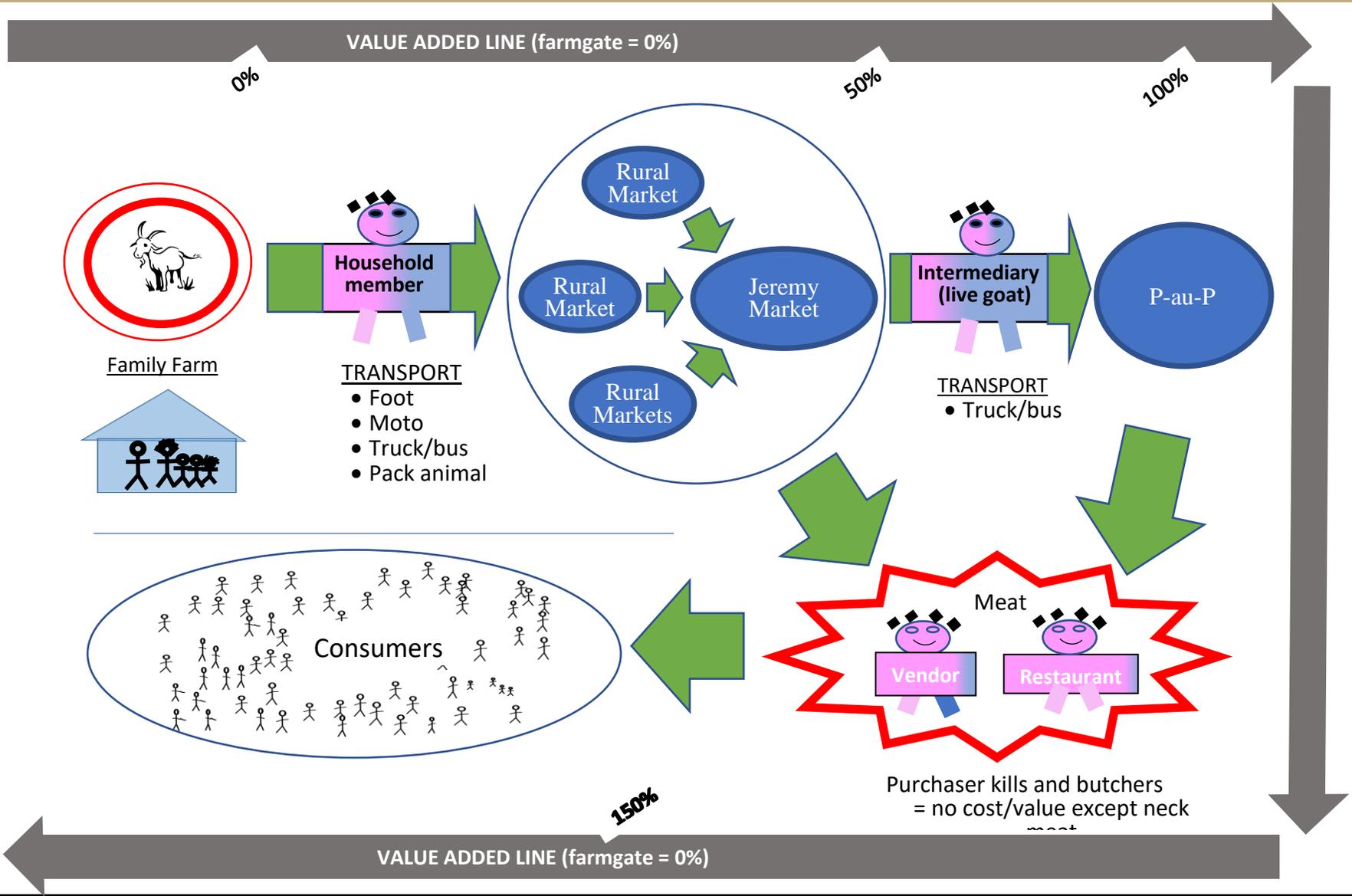


Figure 17.4: Price of Goats from Rural to Urban to Port-au-Prince

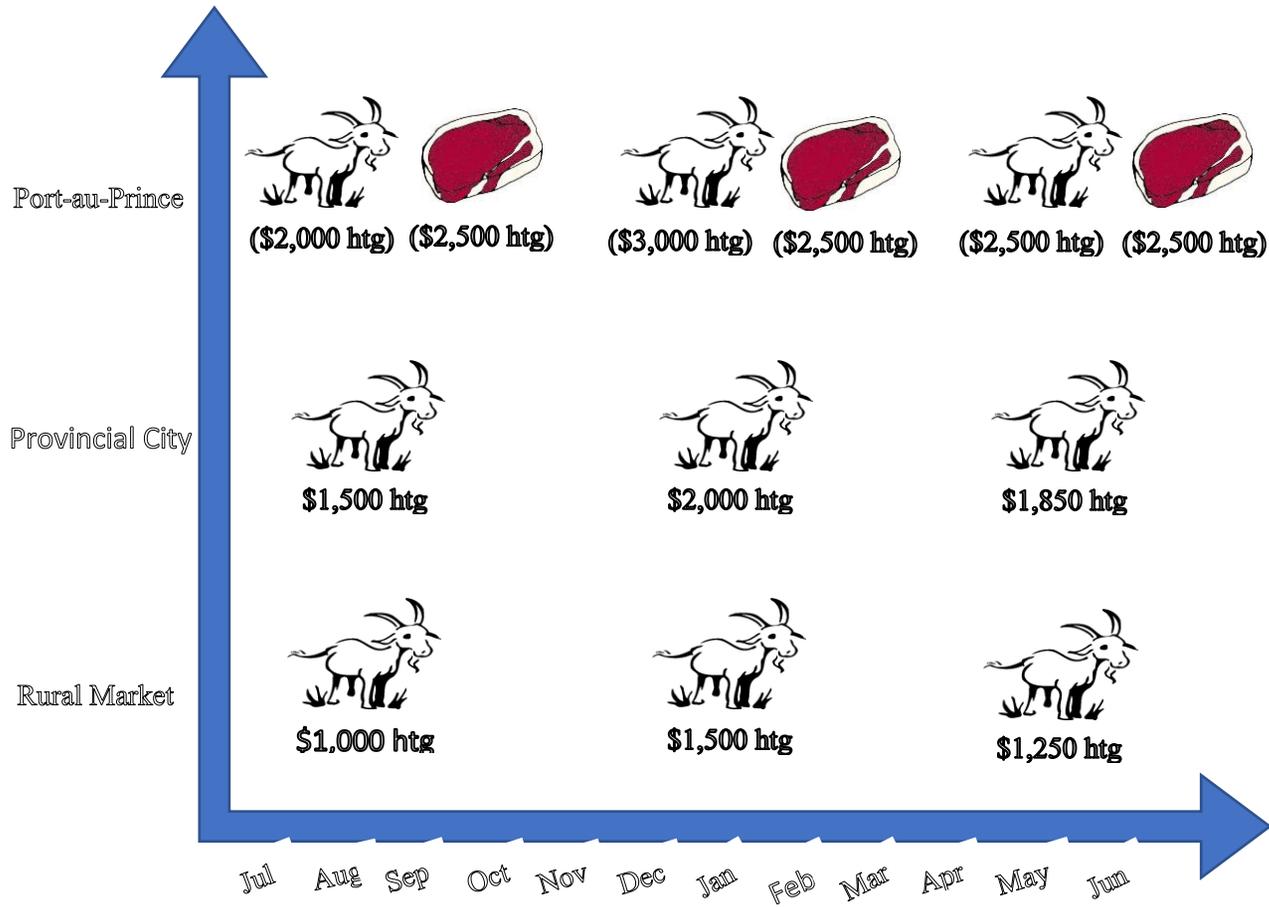
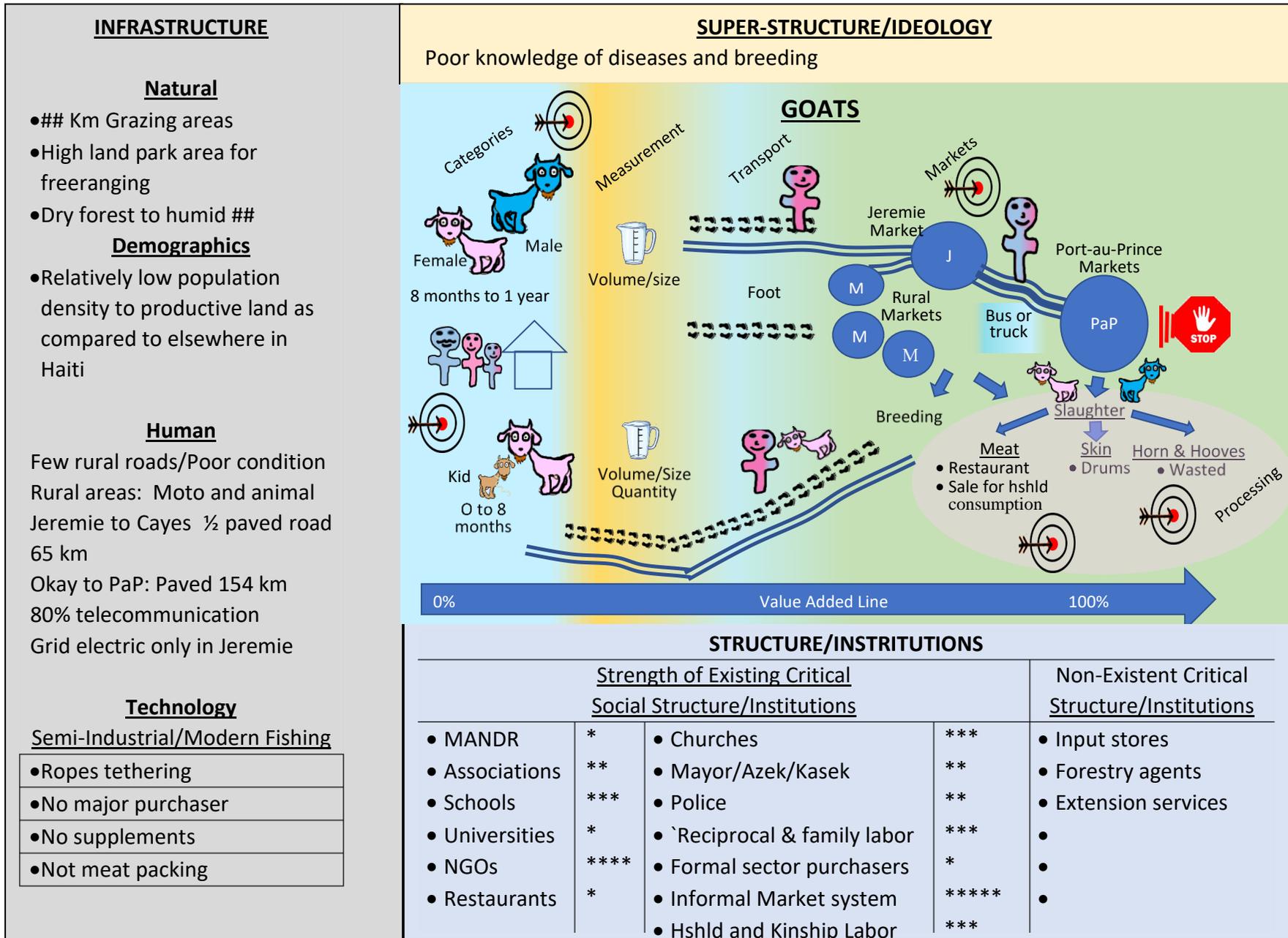


Figure 17.5: Goats Embedded Marketing Map



LEGEND

<u>MEASUREMENT</u>	<u>SYMBOLS</u>	<u>TYPE OF ROUTE</u>	<u>Markets & Gender</u>
 Measurement weight	 Opportunity for intervention	 Foot path	 Market
 Measurement Volume	 Broken Link	 Moto & Foot path	<u>Gender Activity</u> Degree male = blue Degree female = pink
 Measurement quantity	 End of Chain	 Tertiary road	
		 Paved Road	
		 Water	

15. FISH

Types of Fish

Fisherman in the region catch everything from tiny fish fit for an aquarium to 500 lb Marlin, porpoises and even an occasional whale shark. They sometimes classify fish by where they are caught. Artisanal fishman catch fish year-round, mostly juveniles or small, bony, fish not eaten on neighboring islands, and have low value on the international and urban market. Between June and January, the more desirable migratory Skip Jacks, Sardines, and Bonito are caught, sometimes in great number. Industrial fisherman also harvest migratory fish, but their focus includes epipelagic fish, those large predatory fish that hunt the upper levels of the deep sea – specifically Marlin, Swordfish, Dorado, Wahoo, Sailfish, Mackerel, Snapper and various species of Tuna – and that have high value on the urban market.

After the fish have been caught they are classified for sale by the categories, *Pwason Woz* (Pink Fish), *Pwason Blan* (White Fish), *Karabela* (Blue Fish – in other areas of Haiti the category is sometimes "black"). The categories do not strictly correspond to the color of the fish but are more accurately explained as a combination of size and type; both of which are market determined. Pink Fish are the most desirable; White Fish less desirable; Blue Fish--the small fish, juveniles, and rejects from the other categories--the least desirable. Lobster--the most lucrative product for both fisherman and *achtè* but not as commonly caught as fish--and conch fall into two categories: one for the internationally legal marketable size and another price category for undersized specimens. Glass eels are another type of sea product that has become valuable in recent years (see Focus Groups and Part I, Baseline Survey, for more detailed discussion).

Primary Stakeholders

Fisherman and market women.

Secondary Stake holders

Craftsmen who fix boats, nets and make traps. Sellers of hooks, nylon string for nets and other fishing gear. Owners of seines, FADs, NGOs, MARNDR.

Production^{viii}

Recently fishermen in the region have begun to engage in what can be called “industrial fishing strategies” made possible through the installation of offshore floating platforms called “Fish Aggregating Devices” (FADs) that attract large fish, making the location and capture of the fish vastly easier and more efficient. Nevertheless, an artisanal system prevails in the region and fisherman report it being more important for survival due to the fact that they can produce locally or scavenge whatever materials are necessary to engage in fishing and that artisanal fishing provides them with a more stable source of income. Despite the fact that what is being called “industrial” fishing yields much larger and more valuable fish, fisherman have not been able to fully exploit the opportunity due to limitations on storage (ice), transport (roads and vehicles larger than motorcycles) and market (demand is low and there is no single buyer who will purchase exceptionally large fish for shipment to the city). Nor is what we are calling industrial fishing sustainable without significant assistance from NGOs, as seen below.

Byproducts

Bone and Skin.

Production Technology

The use of “industrial” in this case refers to fiber-glass launches approximately 20 feet in length, open, but with outboard motors; long-line fishing gear; and monofilament nets. Industrial strategies can also include air compressors for deeper and more intensive spearfishing and gathering conch; and FADs (Fish Aggregating Devices). New processing and storage technologies include ice, coolers, electric freezers, and cold storage rooms for preservation, motor boats for rapid and safer transport both to offshore fishing grounds and to the urban market. Acquiring all these materials has only been possible with significant support from NGOs and after some 10 years of support, fisherman in the region are no closer to making the industrial strategy sustainable than they were when they started. Nor has the investment itself been complete. The continuing lack of cold storage has meant that many fish spoil. ^{ix}

Table 18.1: Fishing Strategies, Artisanal vs. Industrial		
Technology	Materials	
	Artisanal	Industrial
Transport	Dugout canoes, wood paddle, plastic and cloth sails	Launches (Fiberglass boats with 15 to 60 HP motors)
Fishing	Trot lines, line fishing, string nets, monofilament nets, seining, live bait, surrounding or driving fish into nets	Trolling, long-lining, monofilament nets, lures, DCPs, setting nets
Diving	Mask, fins, snorkel, spear gun	Mask, fins, compressor, spear gun
Storage	Salt, lime and sundried	Ice, cold storage

Organization

Industrial fishing is organized around the association which is almost entirely dependent on financial assistance from foreign aid agencies. Three to five men will use the association-owned or subsidized boat and motor, the association-owned or subsidized fishing gear and fish the association-owned FAD. In contrast, artisanal fishing is mostly an autonomous or single-owner enterprise that involves one to three fishermen. It reaches its organizational zenith with the seine which is a team effort that requires major investments (a dory and seine), vigilance (looking out for schools of fish), timing (getting the team, boats and seine into the water before the fish escape), and coordination (putting the seine into the water, surrounding the fish, and then hauling them to shore or into the boat). Thus, the organization necessary to seine usually involves the *met* (the person who has invested in the seine and boat), a *kaptan* (captain

who coordinates), and an *ekip* (a team of from 8 to 30 men). Emphasizing the significance of this natural organization, artisanal fishermen in Wozo – who like all fishermen in the region have a keen interest in trying to capture an international sponsor who will underwrite their transition into industrial fishing – explained that, "every seine is an association."

Hiring

With the exception of repairing equipment--repairing wooden boats, making canoes and mending nets-- fisherman typically do not hire labor. The catch is divided into thirds: one third for the owner of the boat, one third for the captain, and the rest divided among the crew. If the fisherman fish at a FAD, they are also supposed to pay the owner of the FAD—typically an association--a portion of the catch (1/5th the catch).

Figure 18.1: Seining Team/Association

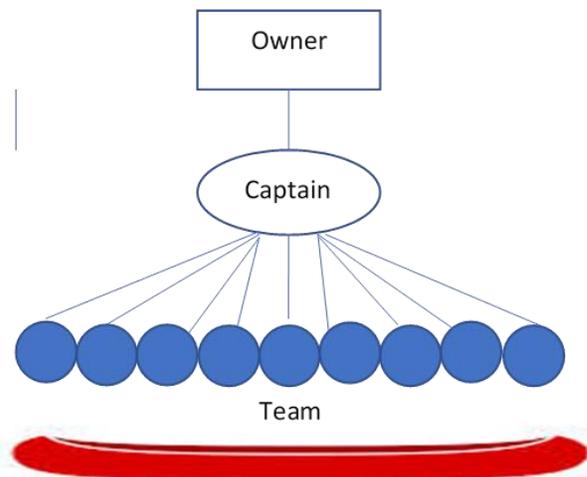


Photo 18.1: A seine team that sees a school of Bonito

Tenure

Boats and fishing equipment such as nets and compressors are typically owned by men. Some women purchase nets and traps—invariably wives or mothers of fishermen. Traps may be purchased and fished even in the name of children, i.e. to pay school expenses for them. The most expensive and prized technologies are outboard motors, fiberglass boats and seines—nets that may be 100 to 200 meters in length. FADs are typically underwritten by NGOs and owned by fishing associations, although at least one FAD in the region is owned by a private entrepreneur.

Financial underwriters

Aid agencies—UN, PADI, Food for the Poor and HEKS-EPER—have all participated in underwriting the costs of industrial fishing in the region. Artisanal fishing is underwritten by the individual, family, friends, and patron (Big Man/Woman). Fisherman typically underwrite the market chain by giving credit to female vendors, usually along lines of kinship.

Source of financing

Principally gardens and livestock.

Most Important Relationship Production

Fishing partners, boat ownership, male producer and female vendor (credit).

Sexual and Age Division of Labor

Men fish. Women and children gut and clean, and sometimes salt and dry the fish. Until recently the sale of fish was entirely a female undertaking. Recently however, the mostly male “achte” has appeared. The “achte” have emerged as byproducts of NGOs and they reflect the tendency for NGOs to give market opportunities to men, more so than women, thereby cutting into the traditional female marketing activities. The *achte* is a well capitalized purchaser who buys fresh fish and ships them to the city for resale.

Sale

Fish are sold locally for household consumption or to be prepared and resold as street food or in informal restaurants. They are also dried and transported to rural markets, Jeremy and even Port-au-Prince. Women in the focus groups who sell fish report it as their preferred trade. But unless a woman has capital to invest in fish and is willing to risk her money, engaging in fishing depends on having a husband, lover, son or other male relative who will give the fish on credit. When taken on credit the woman typically adjusts prices after the fact to account for her profits and/or losses.

Marketing organization

Women sell individually. No pooling of financing, few lenders.

Measurement

Small fish are measured in both volume and quantity. They are typically purchased by the basket or plastic basin (volume), then put on strings and sold by the string (quantity), typically with five to ten fish to a *kod*. Larger fish are bought and sold by volume. They are purchased wholesale based the size of the fish and then retailed by *tranch* (slice).

Processing and storage

Traditionally women gut and de-scale fish, wash them with lime, salt them and sun dry them. The fish can then be stored indefinitely. The women hang them from the rafters in their homes or store them in polyethylene and sometimes burlap sacks until the woman has enough fish for a voyage to market to be profitable, the conditioning factor being the cost of transportation. Fish can also be stored on ice for a shorter period, however ice is only a temporary solution. There are few cold storage rooms in the region and those that exist are costly and require backup generators, i.e. they typically are not working. The fish must be sold quickly or dried.

Transport and Market Venue

The fish are packed into sacks and hauled to a rural market by foot or on the back of a pack animal, on motorcycle to the Jeremy market, or sometimes on public bus or truck to Port-au-Prince. Focus group participants report that high end restaurants and supermarkets do not purchase their fish.

Price and Profit (Value added line)

Final point of sale in Jeremy or rural markets has a ~50 percent markup on the original cost of the fish. Sales in Port-au-Prince are ~100 percent of original costs.

Consumers

Consumers are the general population. During Easter the demand for fish spikes in the city and some woman will make the voyage to Port-au-Prince at this time.

Afflictions

Problems with fish include ciguatera poisoning that may result from eating predator reef fish and scombroid poisoning from larger pelagic fish that have not been properly iced.

Opportunities

There are enormous possibilities for production and marketing of fish in Haiti: 70% of Haiti's estimated consumption of 20,000 MT year fish are imported.ⁱⁱⁱ Yet, per capita consumption of fish in Haiti is estimated to be 4.5 kg, compared to a global average of more than 18 kg. The suggestion is a national market potential of as much as 100,000 MT per year, five times current consumption. HACCP certification--an international standard defining the requirements for effective control of food safety would open up exports to the Dominican Republic, creating an even greater market potential.ⁱ

Seafood: Ice, Urban markets and Export

A significant and highly lucrative opportunity exists for selling high quality pelagic fish to Port-au-Prince supermarket, restaurants and for export overseas. The installation of more than 120 FAD over the past 10 years have made the opportunity possible. Fishermen in the region pull in an unknown but catch of these fish. Many spoil. Currently there is insufficient ice available and no system for rapidly exporting the fish to the city. Yet, Jeremie has the infrastructure to support an ice plant and the improved road between Jeremy and Les Cayes means there that more than six buses per day and dozens of smaller vehicles make the trip to Port-au-Prince.

Fish Farming

Another significant opportunity, one that focuses more on providing the local rather than the urban market with protein rich source of fish, is freshwater fishculture. Fishfarming of Tilapia and Common Carp began in Haiti as early as 1951 with a collaborative FAO/MARNDR five-year fish-farming project that imported Common Carp from Alabama USA and Tilapia Mossambica from Jamaica. The fish were used to stock rivers, lakes and irrigation canals.. Restocking occurred annually until 1967. In the 10 years 1958 to 1968, 4,824 fish ponds, each of an area of ~100 m², were built in various regions of Haiti—mostly on the Artibonite--and stocked with 798,669 Carp fingerlings and 815,765 Tilapia Mossambica. It was these stocking programs that led to current existence of Carp and Tilapia in the rivers of the Grand Anse (see Photo 18.2, right).



Photo 18.2: Tilapia caught in Grande-Anse River

Some efforts at fish cultivation were made by FAO in 1989-90, notably with construction of a Government/MARNDR managed hatchery in the Artibonite, but

for the most part cultivation of fish in Haiti languished in the 1970s and all but disappeared until the early 2000s when it experienced a resurgence through NGOs.¹

The Haitian family farm livelihood strategy seen in the previous pages is suitable for two kinds of fishculture: pond culture in hand-dug basins and cage culture in estuaries and rivers. Both would depend on the existence of hatcheries and availability of processed fish pellets. While neither resources exist in the Grand Anse, there are at least seven hatcheries currently operating in Haiti, five of which are significantly large operations that can be drawn on for expertise, fingerlings, and access to processed feed,^x

- Point Sonde National Fish Hatchery (an offshoot of the original FAO project)
- CH hatchery Croix-des-Bouquets
- CH hatchery near Mirebalais
- Gressier's Christian Ville
- Operations Blessing: fish hatchery outside of Port-au-Prince in Tabarre

There is also currently a hatchery with a 200,000 fry capacity under construction in the Department of the North East at Lagon aux Boeufs sponsored by Food and Agriculture Organization of the United Nations (FAO) and the Ministry of Agriculture. Assistance with fishfarming startup operations can be procured through Organizations such as Farmer-to-Farmer and Aquaculture without Frontiers.

Figure 18.2: Fishing Infrastructure

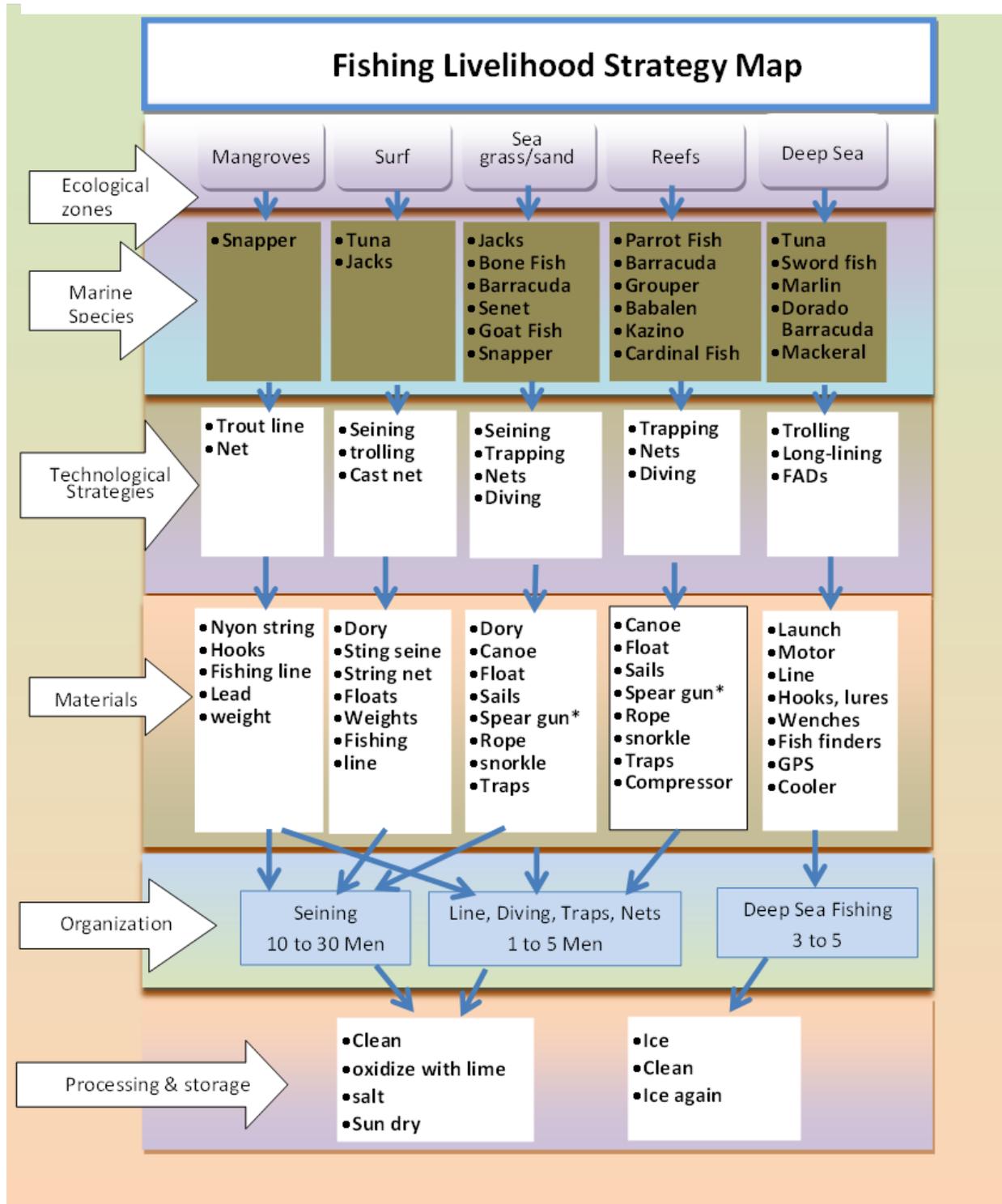


Figure 18.3: Fishing Infrastructure with Points of Intervention and Opportunity

(Key: ! = points of ecological crisis; ☀ = opportunity)

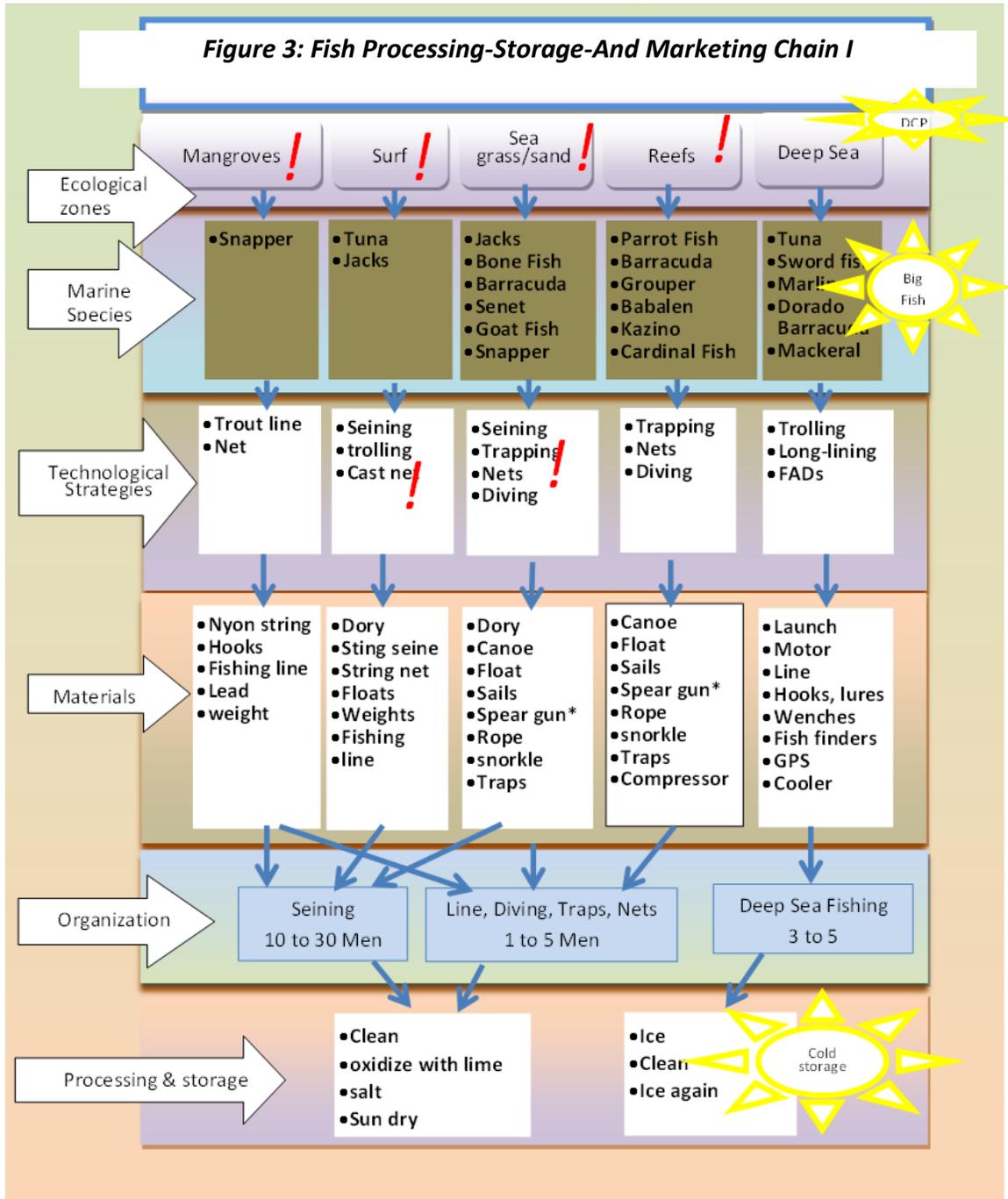
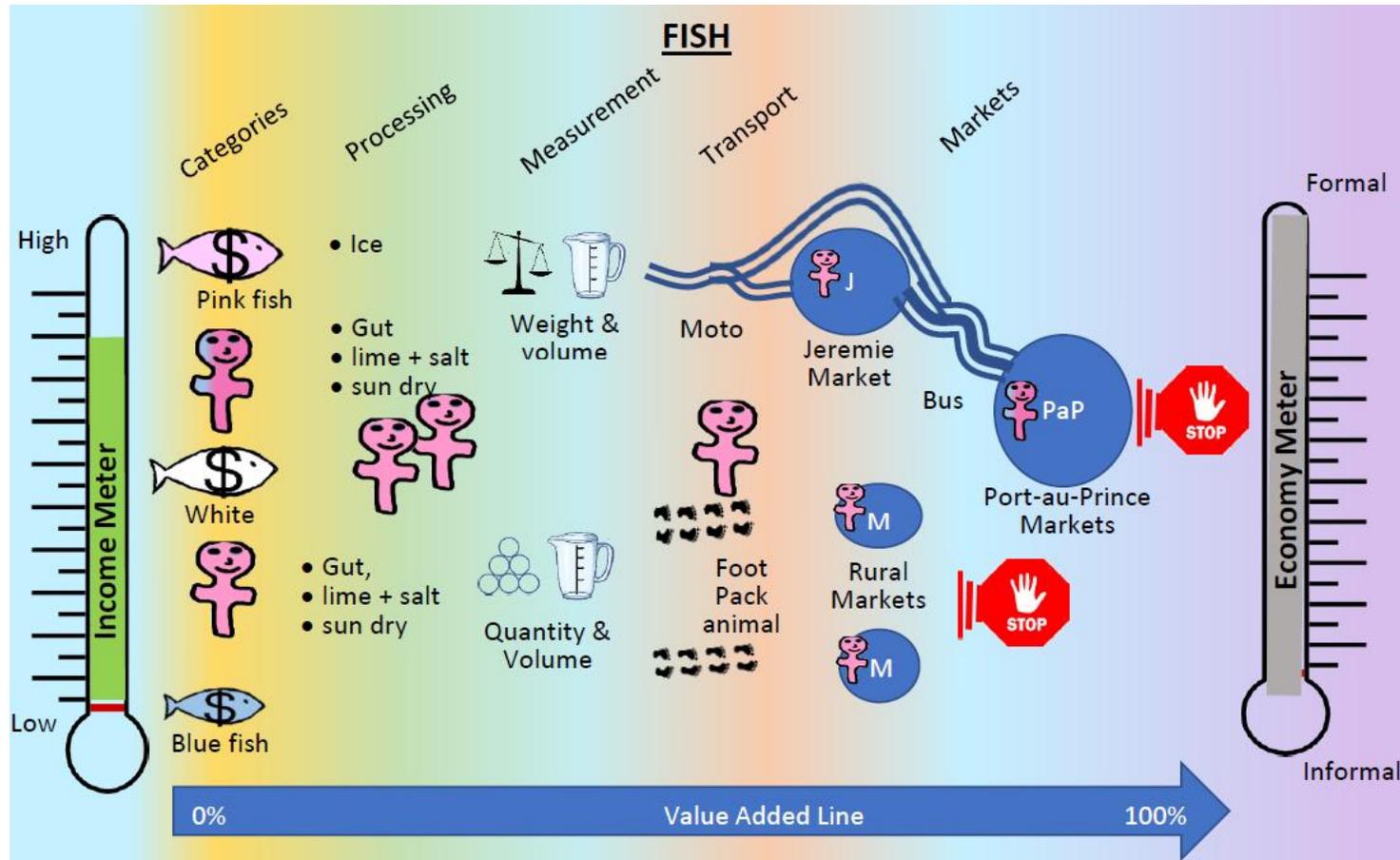


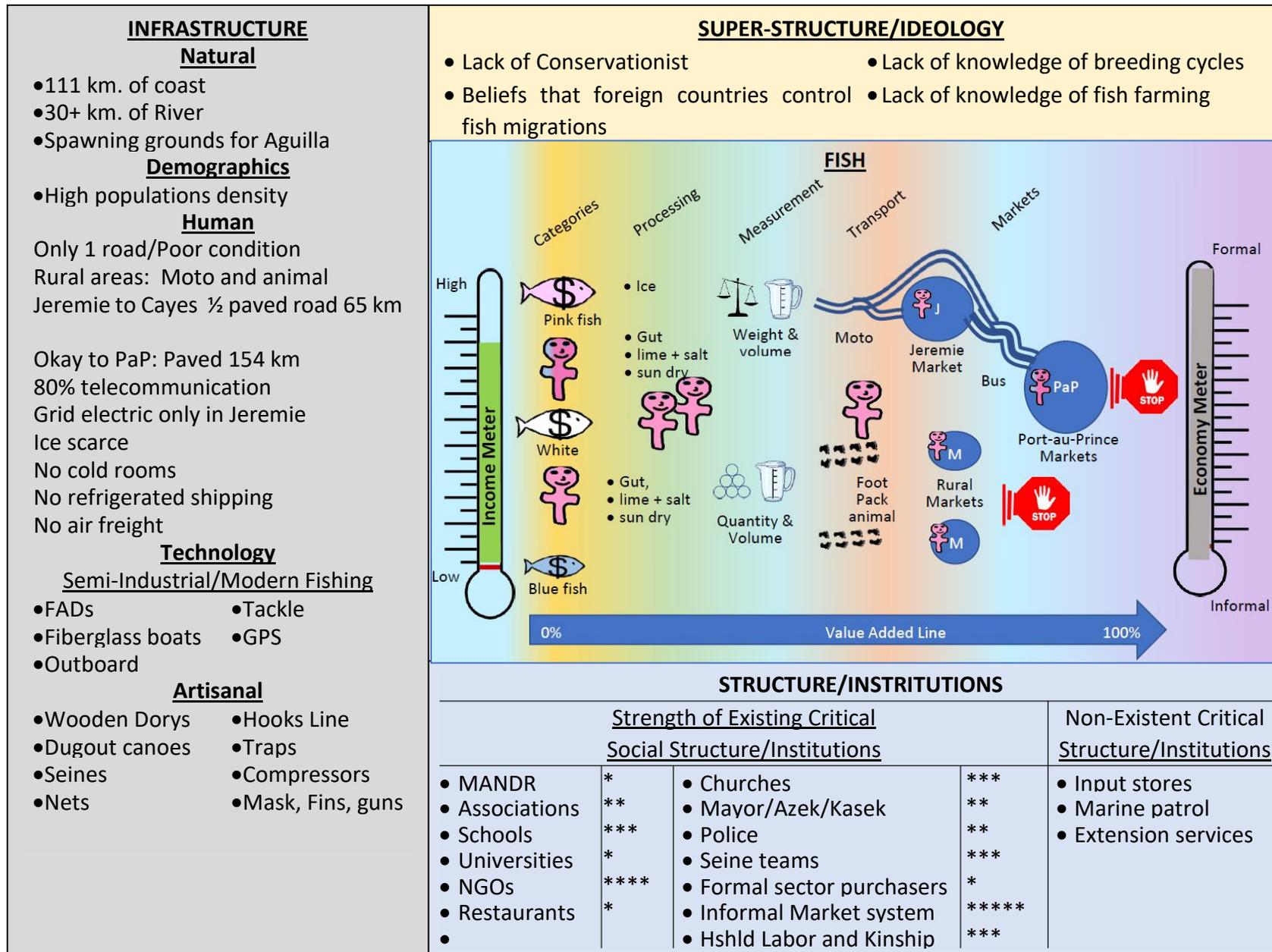
Figure 18.4: Fish Marketing Map



LEGEND

MEASUREMENT	SYMBOLS	TYPE OF ROUTE	LOCAL FISH GRADING SYSTEM	Markets & Gender
Measurement weight	Opportunity for intervention	Foot path	Pink fish	Market
Measurement Volume	Broken Link	Moto & Foot path	White	Gender Activity
Measurement quantity	End of Chain	Tertiary road	Blue fish	Degree male = blue
		Paved Road		Degree female = pink
		Water		

Figure 18.5: FISH Embedded Marketing Map



PART III: Grassroots Leadership Network for Data Collection and Engagement

Frequency Listing and the NOLKIN Strategy

As part of a strategy for continued data collection and engagement of rural farmers with innovative development interventions, Socio-Dig employed its Freq-listing and the *Notab* Leadership and Key Informant Network Strategy (NOLKINS). NOLKINS is similar to an election in that respondents identify leaders. However, it is not a political strategy. Rather it is a strategy for engaged development. But in coming to understand how it works and why it can be so effective, it helps to think of it as an endeavor to identify leadership that is truly representative of the local population, leaders who can act as catalysts helping humanitarian aid organizations understand what is going on at ground-level and helping them reach out and inform the population. These leaders become points of contact in implementing assistance activities, and sources for monitoring and feedback regarding the success and failures of interventions. In this sense, Freq-listing is to an election what a sample survey is to a census. Both freq-listing and elections yield leaders who are representative of the population. But freq-listing is arguably far more effective than an election because it is unencumbered by the candidate's access to power, by the need for understanding how to negotiate the political process in order to qualify as a candidate, or even by the will to be a candidate. It is also unencumbered by opportunities or motivations to bribe, cajole or corrupt the process. Moreover, the way that freq-listing surveys are designed and conducted and the questions asked mean that the process selects for leaders who are truly local and rural, not merely urban leaders pretending to represent the rural poor. The end product is a network of recognized local leaders who are evenly distributed across the landscape, through which the population can be engaged for development interventions, and that can also be tapped for information and insights. Freq-listing is radically economical. The initial survey cost is a small fraction of what an election or census costs, it is logistically far simpler to carry out, and it yields a network of authorities who can subsequently be used as respondents in rapid telephone surveys. Quite literally freq-listing yields a living database that can be tapped at any time for 100ths of the cost of a common survey and that arguably provides data that is more valid than that of a common survey, the reason being that the respondents have been pre-selected specifically because their neighbors identified them for the qualities of honesty, wisdom and leadership. Moreover, algorithms derived from Cultural Consensus Theory can subsequently be used to assess information from these leaders and detect with mathematical precision those who do not truly qualify, who are not being forthcoming and honest, or who at some point, decide to change and no longer be forthcoming and honest.

Notab Survey Strategy

The *Notab* survey was designed to build an enduring network of rural community leaders that HEKS-EPER can engage as rural liaisons for community-based development initiatives and tap for information. Socio-Dig has termed the technique we use to identify the community leaders,

‘frequency listing’, or freq-listing for short, and we called the resulting network a *Notab* Leadership and Key Informant Network (NOLKIN).

16. Freq-Listing and the NOLKIN Strategy.

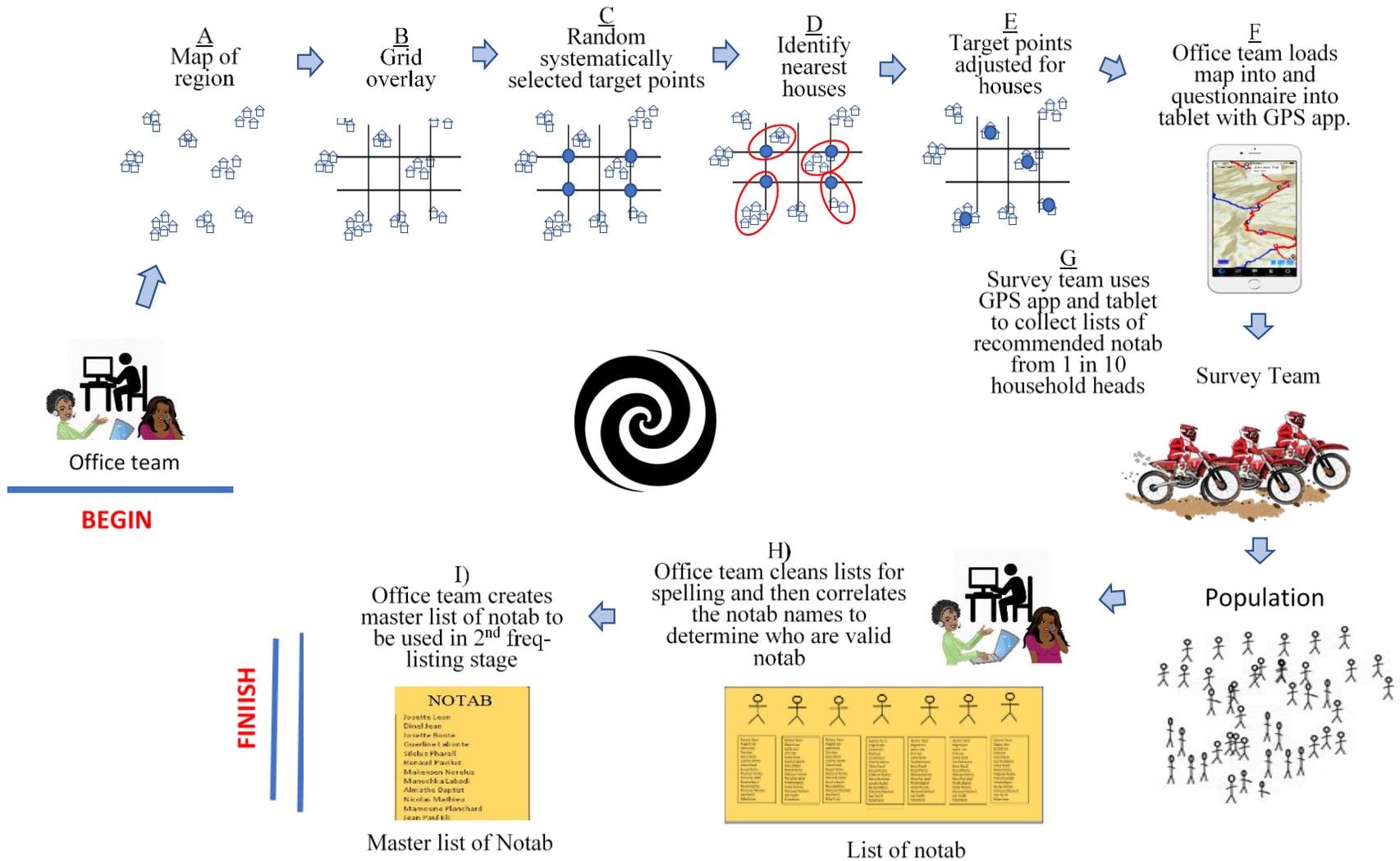
Freq-Listing is a statistically robust survey method for identifying competent low-level community leaders (called *notab*). In its simplest form, as we used it in the first stage of *notab* identification, freq-listing is simply a survey where interviewers ask respondents to recommend leaders who live in their area. To be even more specific, just as with the baseline survey seen in the previous section, we used a grid strategy to systematically and randomly select GPS points distributed throughout HEKS-EPER’s targeted activity areas. These points were selected in Google Earth. We then zoomed in and moved the points to the nearest visible houses. The GPS coordinates were loaded into a GPS map app installed on Tablet-Telephones (in this case MapsMe loaded on Samsung Galaxy Tablets). The Surveyors then used the tablets to locate the GPS points whereupon they interviewed male and female heads of the 5 households closest to each point. The surveyors each alternated between interviewing first a male head and then a female head (see Figure 19.1 on following page). Totaled there were originally 370 points, of which the surveyors successfully sampled household heads at 233 points, collecting a total of 959 surveys (4.1 surveys per point), 242 surveys shy of the originally intended 1,200 surveys. There were 497 female respondents and 462 male respondents.

The specific question asked was, ‘can you recommend 5 most-trustworthy male local leaders who live within 1-hour walking distance of the house. Then we asked the respondent for 5 female leaders who live within 1-hour walking distance of the house. We also gathered locations and contact telephone numbers. We then compiled the resulting lists to see which leaders were most frequently mentioned.

After the lists were cleaned and the most frequently cited *notab* selected, Socio-Dig telephone researchers subsequently locked in tele-communication with the *notab* using social network strategies that Socio-Dig has developed over the past seven years. These techniques have enabled us at times to contact *notab* by telephone with success rates of 90 - 95 percent. In the case of the HEKS-EPER *notab* survey we reached 173 *notab*.

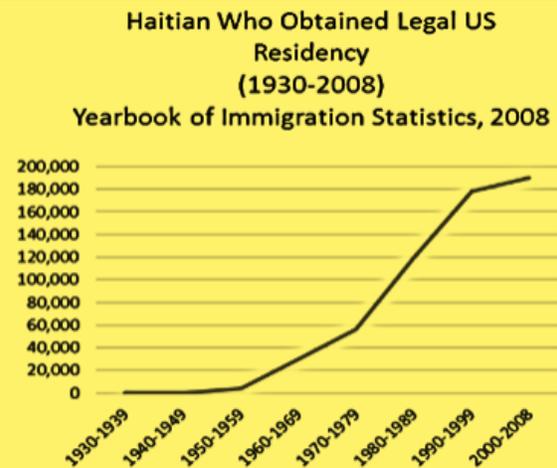
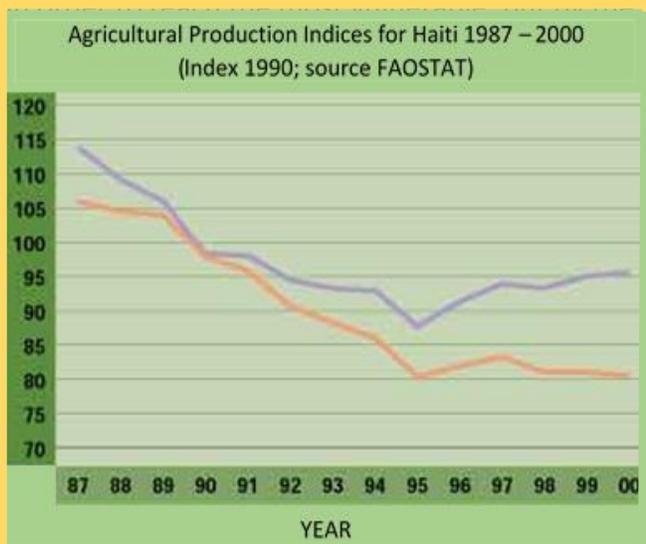
The *notab* base Socio-Dig establishes means that HEKS-EPER and/or Socio-Dig can subsequently perform surveys for a fraction of the time and cost of traditional surveys. The information can be used to populate Excel dashboards and automated reports. Socio-Dig has trained HEKS-EPER Haiti staff in the design and use of the Freq-Listing technique. To make full use of the strategy, to maintain it in a healthy and vigorous state; that can support Monitoring and Evaluation unit with timely, data-oriented reports and recommendations to Zurich. Below we give the details regarding how the survey was carried out. ###. Interspersed with Textboxes that explain why Freq-Listing and the *Notab* Leadership and Key Informant Network (NLKIN) are so useful, if not necessary, to achieve effective community engagement.

Figure 19.1: Freq-Listing and the *Notab* Leadership and Key Informant Network (NLKIM).

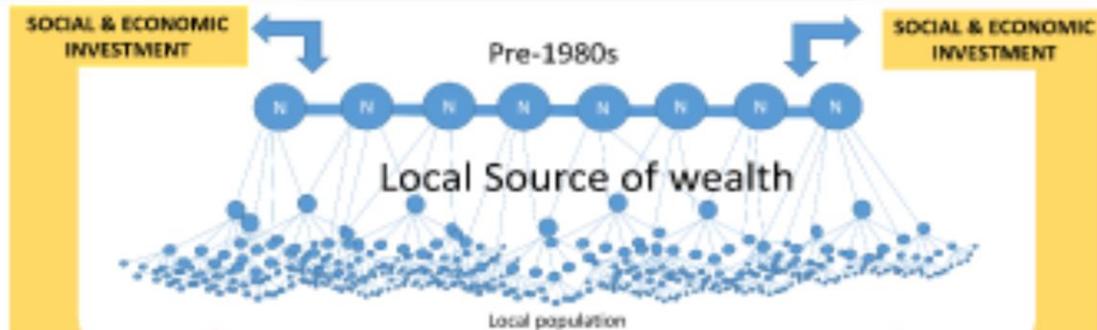


TEXTBOX 19.1: LONG HISTORY OF COMMUNITY BASED TARGETING IN HAITI AND WHY IT NO LONGER WORKS

During the 1950s, 1960s and early to mid -1970s Community Councils made up of village elites were the prevailing rural targeting strategy in Haiti and considered highly effective (USAID 1983; Lavelle 2010). By the 1980s the consensus among those who studied them had changed. Maguire (1979: 28) was calling the gran neg (Big Man) who had been instrumental in making the councils successful their “gravest problem.” Honorat (cited in McClure 1984) wrote that the councils had “became ‘citized’” and composed of “clusters of people waiting to receive and control some development project benefit.” Smucker (1986, p. 109) too concluded that they, “became project oriented and the widespread perception was that they became dependent on the Food and tried to capture it.” In the 1990s, Kaufman (1996, p. 10) described the CBOs that had succeeded the Councils as “formed in response to community development programs” and little more than, “groups of symbolic participation.” Even Jennie Smith (2001), a champion of Haiti rural grassroots organizations, referred to them up as “plagued with corruption, mismanagement and other problems.” Arguably the best way to understand what had happened is in the context of increasing migration out of rural areas. Before the 1970s and 1980s, rural community leaders invested in property and social capital; this made Community Based Targeting not only viable but organic and arguably unavoidable. With support from community leaders-- “gran neg” and “gran dam”--humanitarian aid programs won community buy-in and support. But in the 1980s, 1990s until the present, political instability and migration out of the rural areas has sapped rural society of its hierarchical integrity. By the 1990s most traditional leaders and their children were gone. With their exodus export production and post-harvest processing industries all but completely disappeared from the rural areas. International aid soon took their place as the greatest sources of rural revenue. The extent to which humanitarian aid became a business is evident in the fact that while in the 1950s and 1960s humanitarian aid organizations had to partner with a rural elite comprised of traders, big farmers, and local politicians



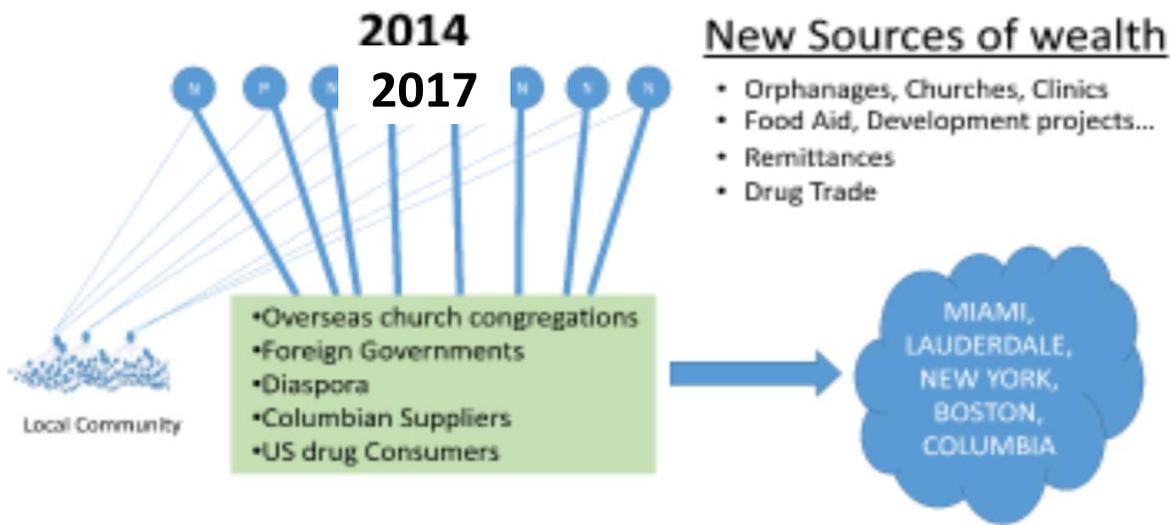
TEXTBOX 19.2: NOTAB SHIFT IN SOURCE OF SUPPORT



- Local Source of wealth
- Family Resides in Area
- Stable Local Political Allies



New Rural Notabs/Gran Negs/Dams



17. The Survey

Targeted Sample

The *Notab* survey sampling strategy was planned with 370 points distributed approximately every 1.1 kilometers through four regions that, according to communes and regional names, we labeled Dame Marie (20 sample points), Abricot (43 sample points), Previl-Jacken (150 sample points), Wozo-Vincent (91 sample points), Fond Kochon (66 sample points) see Figure 1 (below). The objective was to interview one household head from each of the five households closest to the sampled points. In cases where there were not five households, the surveyors were to take as many households as available. The target number of surveys was 1,200. The extra points were provided in anticipation that lack of houses and rough terrain would mean that some could not be reached or would not provide access to sufficient number of respondents.

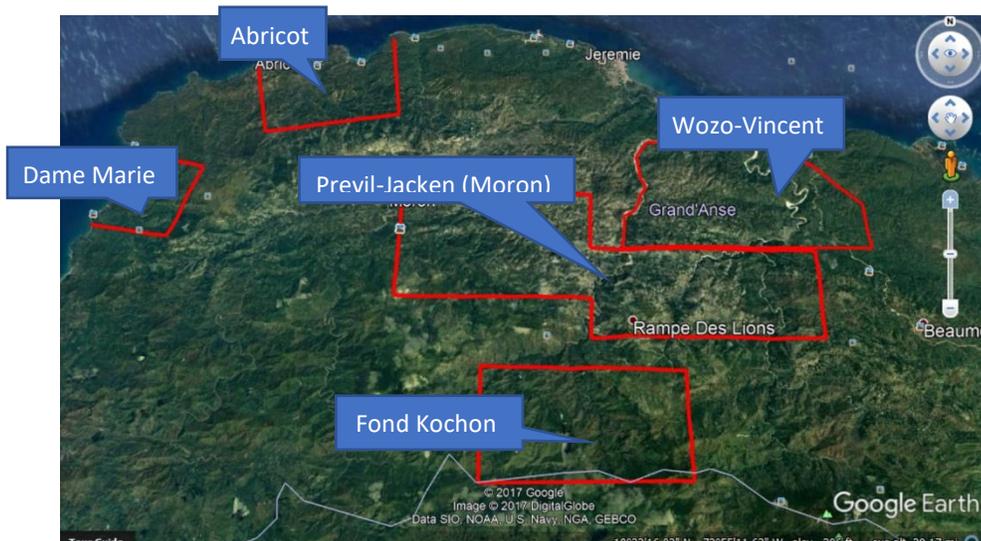


Figure 20.1 The five target areas/zones

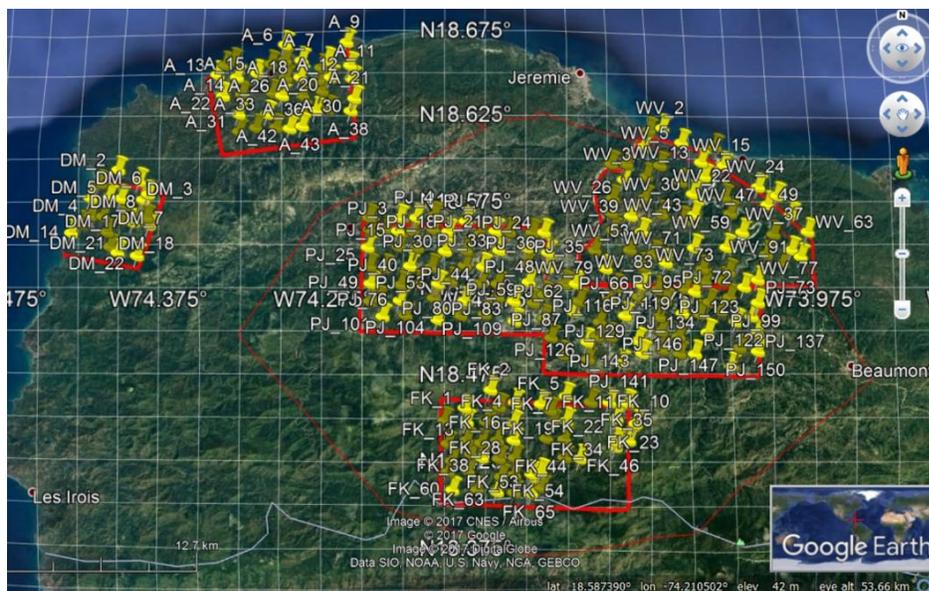


Figure 20.2: The points to be sampled were marked according to grid with one point every 1.1 kilometers throughout the region. As with the baseline survey, to avoid sending surveyors to empty parcels of land, the points were then moved to the nearest houses as best they could be identified on Google Earth

Achieved Sample Points

As mentioned in the overview, of the 380 points, the surveyors successfully sampled household heads at 233 points, collecting a total of 1,008 surveys (4.1 surveys per point), 196 surveys shy of the originally intended 1,200 surveys. There were 526 female respondents and 482 male respondents. The shortfall in successfully surveyed points is not unusual and was anticipated and compensated for with extra survey points. However, as explained below, the terrain and daily rain showers made the survey exceptionally difficult. The surveyors also reported high numbers of abandoned houses in the highland areas, ostensibly a consequence of devastation from Hurricane Matthew that occurred October 3rd 2016.

Survey Process

On November 14, 2017, two Socio-Dig supervisors and one surveyor went to Jeremy to prepare for the survey with Islande Jean and Gana Seneus of HEKS-EPER. On the 16th, they were joined by nine more surveyors. The anticipated collection was egregiously overestimated. The surveyors were scheduled to conduct an average of 20 interviews per day per surveyor, for five days, thereby gathering 1,200 surveys. Two additional days were allotted for foul weather and three days for travel. Instead, the survey team was daily challenged with downpours and extremely rough terrain. The combination of rain and rocky topography made the work treacherous. Instead of achieving the planned 20 surveys per day, the surveyors were only able to complete six surveys per day. As they reached more remote areas of Fond Kochon, they encountered ever more severe terrain, and an increasing number of abandoned homes. By day 11 the number of surveys per day had dwindled to three per surveyor with reports that many houses they were encountering were abandoned (ostensibly as a consequence of the October 3rd 2016 hurricane) and some points had no houses at all. Nevertheless, during that phase, the surveyors managed to complete 959 of the targeted 1,200 surveys, satisfactorily covering all areas except the highest areas of the survey in Fond Kochon. A team of four surveyors returned and from January 30th to February 1st revisited Fon Kochon and collected another 49 surveys, bringing the total to 1,008.

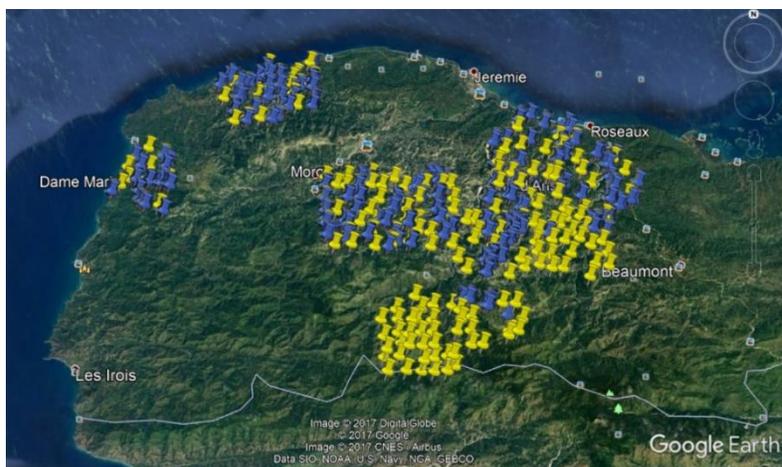


Figure 20.3: The yellow markers indicate selected sample points and the blue are points that were surveyed. Note that many yellow points are hidden behind blue points. Note the scarcity of sampled points in Fond Kochon. Not included are the additional 49 surveys collected from January

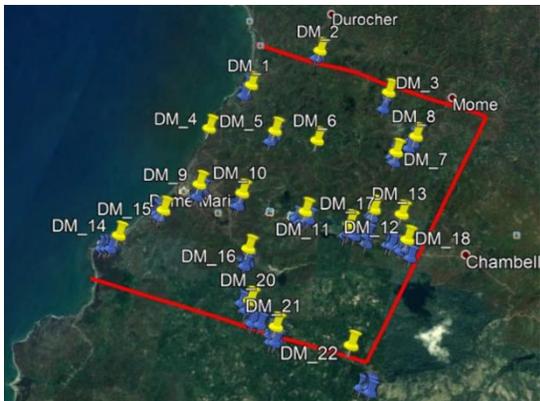


Figure 20.4: Dam Marie selected (yellow) and sampled (blue) points.

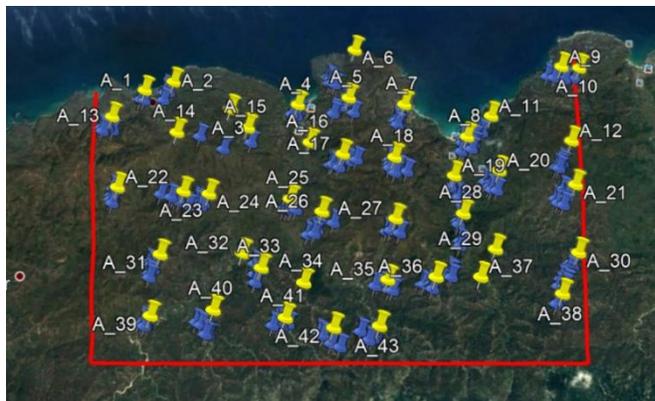


Figure 20.5: Abricot selected (yellow) and sampled (blue) points

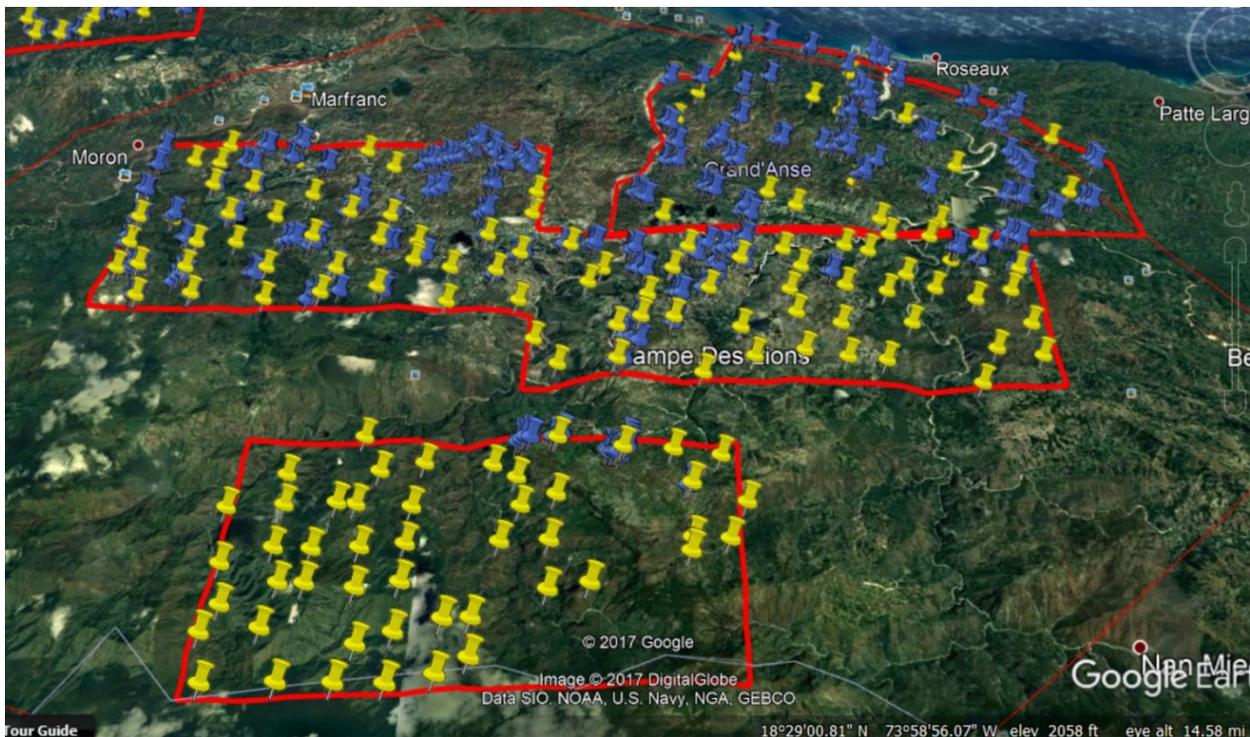


Figure 20.6: Moving from the sea inland is Wozo-Vincent region, the Prelin-Jacken region in the middle, and then the upper Fon Kochon region. Note the scarcity of sampled (blue) points upper Fon Kochon. Due to the rugged terrain and relative absence of houses, this area not subsequently excluded from the study.

Notab Identification

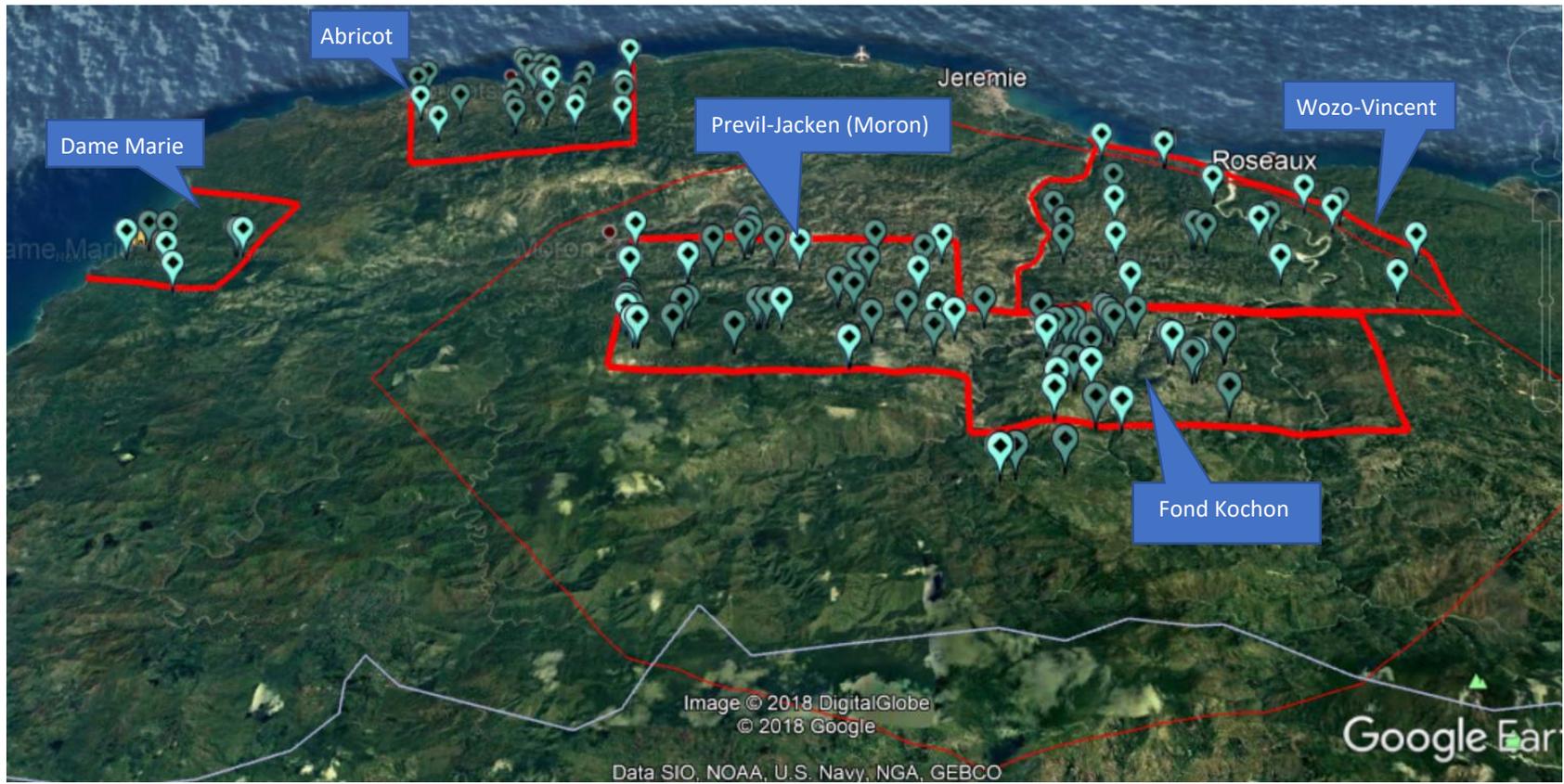
From the 1,012 interviews, we obtained 4,667 recommendations for *notab*, 1,889 of whom were female and 2,778 of whom were male. The most recommended *notab* was a man with 11 recommendations, another had ten recommendations, one had nine recommendations, seven had seven recommendations, 15 had six recommendations, 33 had five recommendations, 58 had four recommendations, and 142 had three recommendations (see Table 20.1, right).

Using the criteria for being an acceptable *notab* of at least three recommendations, we obtained 252 recommendations. Of those, we obtained 209 phone numbers from those who had recommended them. Of the total 209 *notab* with telephone numbers, we originally contacted 168 but ultimately, over the course of two separate telephone call campaigns (calling all the *notab* on the list), we eliminated 24 because of unwillingness to participate (9), and difficulties in contacting the respondent (15), thus refining the number to 144.

The distribution of the location for the *notab* is provided in Figure ##, on the following page. The GPS coordinates estimates derived from averages for all those individuals representing the *notab*. Recall that respondents were asked to give the names for *notab* within 1 hour walking distance of their own homestead. In this way, each *notab* can be thought of as representing an area of 1 hour² walking distance, translating to roughly 7 km².

Res	Number of <i>notab</i>	Cumulative number of <i>notab</i>
11	1	1
10	1	2
9	1	3
7	7	10
6	15	25
5	33	58
4	58	116
3	142	255

Figure 20.7: Distribution of Selected Notab



5 Miles

Figure 20.8: Dame Marie



Figure 20.9: Abriko

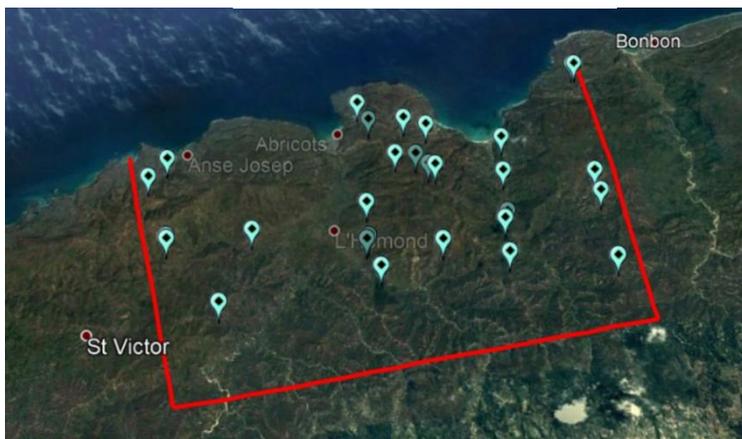


Figure 20.10: Previlon Jacken



Figure 20.11: Wozo Vincent

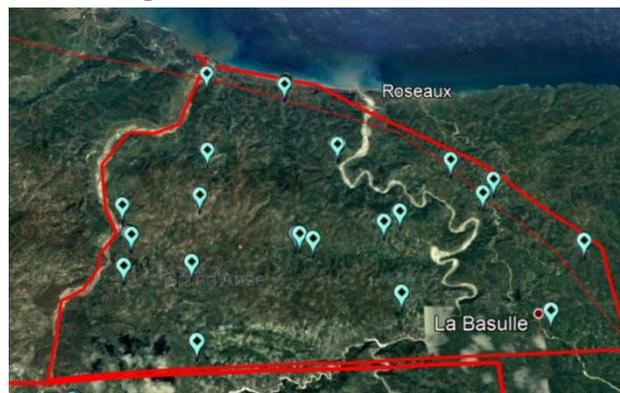
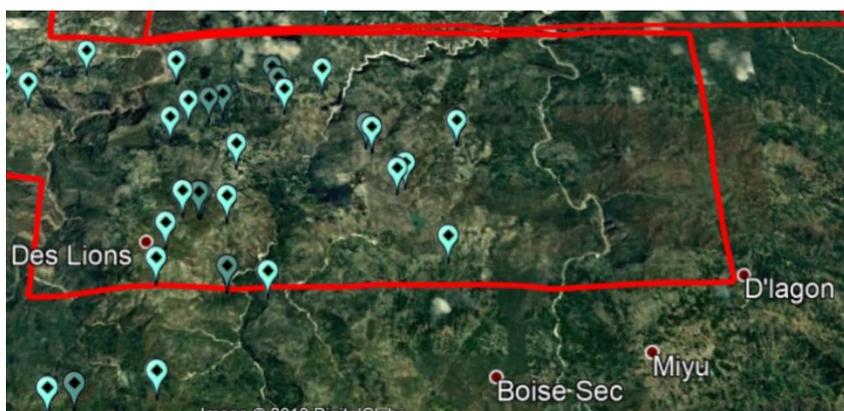


Figure 20.12: Fon Kochnon



TEXTBOX 20.1: NEGOTIATING GOVERNANCE ISSUES

Almost as a rule, those of us who work in the humanitarian aid sector recoil from coming to terms with the ugly fact that many among the impoverished people we hope to help try to fool us. Just as in developing countries, there are people who go to extreme lengths to game the system. There are want-to-be beneficiaries who inflate reports of family size, those who hide animals to increase their apparent poverty, and even those who pretend to live in dilapidated houses that have been abandoned or that belong to someone else. Medical practitioners working rural clinics have claimed there are even impoverished clientele who starve one child in order to qualify for nutritional benefits that could benefit the whole family. Perhaps more troubling than anything is that, as seen in a prior textbox, the community leaders who are expected to provide us with a way to work around this system gaming and help us identify the needy and carry out effective interventions—such as quality schooling, reforestation, road building and distribution of emergency aid during times of crises—are trying to capture the aid for themselves before it ever gets to the community or the most needy. Whatever the true extent of the efforts some people make to get on the roles of humanitarian aid distributions or to commandeer the aid altogether, most aid workers would agree that widespread deceit is a hard fact of the aid industry in Haiti. But what most sabotages us in the endeavor to reach the needy is, not so much the corruption in and of itself, but our general refusal to admit the corruption exists and to confront it or, at least, figure a way to work around it..

WORKS CITED

- Advameg, Inc Encyclopedia of the Nations. Haiti Fishing
<http://www.nationsencyclopedia.com/Americas/Haiti-FISHING.html>
- Abe, Valentin Ph.D. Undated. Risk Management in Aquaculture: Case Study of Haiti. Caribbean Harvest Foundation. Port-au-Prince, Haiti.
- Abe, Valentin Ph.D. 2014. Risk Management in Aquaculture: Case Study of Haiti. Executive Director, Caribbean Harvest Foundation. Port-au-Prince, Haiti.
<http://www.agriskmanagementforum.org/content/risk-management-aquaculture-case-study-haiti>
- Attfield, Harlan H. D. Goats.... with Contributions From: George F.W. Haenlein, Jane Williams, Earl M. Moore Technical Reviewers: Morrison Lowenstein, Pam Adolphus
- Belanger, J., Raising Milk Goats the Modern Way. Charlotte, Vermont: Garden Way Publishing Co., 1975.
- Berman, Mary Jane, and Charlene Dixon Hutcheson, 2000 "Impressions of a Lost Technology: A Study of Lucayan-Taino Basketry." Wake Forest University Winston-Salem, North Carolina Documento descargado de Cuba Arqueológica www.cubaarqueologica.org
- Bernard, H. Russell and Christopher McCarty. 2009 The Network Scale-Up Method: Background and Theory. University of Florida.
- Bloch, P., V. Lambert, N. Singer, and G. Smucker. 1988. Land Tenure issues in rural Haiti: Review of the evidence. LTC Research Paper 94. Madison: Land Tenure Center, University of Wisconsin-Madison. Mimeo.
- Borgatti, S. P. 1992. ANTHROPAC 4.0 reference manual. Natick, MA: Analytic Technologies.— ——. 2002. A statistical method for comparing aggregate data across a priori groups. *Field Methods* 14 (1): 88–107.
- Brethes. J-C. et C. Rioux. 1986. La pêche artisanale en Haïti. Situation actuelle et perspectives de développement in *La pêche maritime*. 65 (1302) : 652-658p.
- Brewer, D. D., S. B. Garrett, and G. Rinaldi. 2002. Free-listed items are effective cues for eliciting additional items in semantic domains. *Applied Cognitive Psychology* 16:343–58.
- Celestin, W. 2004. La filière pêche dans le département de la grand' anse d'Haïti. Pour le groupe d'action et de recherche en développement local (GARDEL). Projet PDR-GA.364p.
- Chambers and Associates 2010 Headed for Extinction?
<http://www.bigmarinefish.com/extinction.html>

Child, R.D., et al.. Arid and Semiarid Lands: Sustainable Use and Management in Developing Countries. Washington, D.C.: National Park Service, 1984. Also, Morrilton, Arkansas: Winrock International, 1984.

Chounoune, F. Jackson. 1998 Fish Culture Projects. Bulletin vol 11 n°1 Some fisheries and aquaculture projects in Haiti. International Center for Aquaculture Auburn University Agricultural

CIAT (Comité Interministériel IAT d'Aménagement du Territoire) 2012 http://ciat.gouv.ht/sites/default/files/docs/CIAT_CIATs_mission_GB.pdf

CRFM 2009 CARIBBEAN REGIONAL FISHERIES MECHANISM SECRETARIAT

CRFM 2009 CARIBBEAN REGIONAL FISHERIES MECHANISM SECRETARIAT REPORT OF THE MULTIDISCIPLINARY SURVEY OF THE FISHERIES OF HAITI Funded by the Commission of the European Union Under Lomé IV - Project No. 7: ACP: RPR: 385

Damais, G., P. de Verdilhac, A. Simon et D.S. Celestin. 2007. Étude de la filière de pêche en Haïti : IRAM /INESA. Rapport provisoire. 116p

Davenport, Thomas L, 2000 Rapid product assessment of the mango commodity sector for the Haitian Hillside Agricultural Program (HAP) In THE USAID-FUNDED HAITI HILLSIDE AGRICULTURAL PROGRAM (PEM 2013)

EMMUS-I. 1994/1995. Enquete Mortalite, Morbidite et Utilisation des Services (EMMUS-I). eds. Michel Cayemittes, Antonio Rival, Bernard Barrere, Gerald Lerebours, Michael Amedee Gedeon. Haiti, Institut Haitien de L'Enfance Petionville and Calverton, MD: Macro International.

EMMUS-II. 2000. Enquête Mortalité, Morbidité et Utilisation des Services, Haiti 2000 (EMMUS-II). Cayemittes, Michel, Florence Placide, Bernard Barrère, Soumaila Mariko, Blaise Sévère. Haiti: Institut Haitien de L'Enfance Petionville and Calverton, MD: Macro International.

EMMUS-III. 2005/2006. Enquête mortalité, morbidité et utilisation des services, Haiti 2000 (EMMUS-III). Cayemittes, Michel, Haiti: Institut Haitien de L'Enfance Petionville and Calverton, MD : Macro International.

Evaluation of forest cover estimates for Haiti using supervised classification of Landsat data Christopher E. Churches a,1, Peter J. Wampler a,*, Wanxiao Sunb,2, Andrew J. Smithc,3 a Geology Department, Grand Valley State University, 1 Campus Drive, Allendale, MI 49401, United States b Geography and Planning Department, Grand Valley State University, 1 Campus Drive, Allendale, MI 49401, United States c Natural Resources Management Department, Grand Valley State University, 1 Campus Drive, Allendale, MI 49401, United States

FAFO 2001 Enquête Sur Les Conditions De Vie En Haïti ECVH – 2001 Volume II

FAFO 2003 Enquête Sur Les Conditions De Vie En Haïti ECVH – 2001 Volume I

FAO (2005). Fishery Country Profil. La Republique d'Haiti. Donnees economiques generales. Disponible sur: <http://www.fao.org/fi/oldsite/FCP/fr/HTI/profile.htm>

FAO. 1989. Roots, Tubers and Plantains in Food Security - In Sub-Saharan Africa, in Latin America and the Caribbean, in the Pacific (Paperback) Food and Agriculture Organization of the United Nations Series: Economic & Social Development Papers ISBN

Gatewood, J. B. 1984. Familiarity, vocabulary size, and recognition ability in four semantic domains. *American Ethnologist* 11 (3): 507–27.

Guinette, Marie Pascale Saint Martin François, 2009 "La pêche sur Dispositif de Concentration de Poissons (DCP) à Anse d'Hainault: Contribution au Revenu des Marins Pêcheurs et Marge des Distributeurs." Mémoire de fin d'études agronomiques Faculte D'agronomie Et De Medecine Veterinaire (Famv), Université d'état d'Haïti Departement Des Ressources Naturelles Et Environnement.

Haenlein, George and Donald L. Ace (eds.), *Extension Goat Handbook*. Washington, D.C.: U.S. Department of Agriculture, 1994. Also, Newark, Delaware: University of Delaware, 1984.

Hargreaves, John A. 2012. *Developing Tilapia Aquaculture In Haiti: Opportunities, Constraints, And Action Items* Proceedings Of A Workshop Sponsored By Novus International, Aquaculture Without Frontiers, The World Aquaculture Society, And The Marine Biological Laboratory Edited. Aquaculture Assessments LLC

IDB 2014 HAITI Project Profile (PP) Land Tenure Security Program HA-L1056 <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35624298>

IDB/MIF 2010 *Mango As An Opportunity For Long-Term Economic Growth* Document Of The Inter-American Development Bank Multilateral Investment Fund (Ha-M1034). Donors Memorandum

J. Wiener, 2013. "Creole Words And Ways: Coastal Resource Use and Local Resource Knowledge In Haiti" J. Wiener, Fondation Pour La Protection De La Biodiversité Marine, Port Au Prince, Haiti.

Jumelle, I. C. 1984. *Pêche et pêcheurie en Haïti*. Formulation d'un projet d'amélioration. 115p.

Killworth a, Peter D., Christopher McCarty, H. Russell Bernard , and Mark House 2006 The accuracy of small world chains in social networks. *Social Networks* 28 (2006) 85–96

Killworth, Peter D, Eugene C. Johnsen, H.Russell Bernard, Gene Ann Shelley, and Christopher McCarty. 1990. Estimating the Size of Personal Networks. In *Social Networks* 12:289-312. North Holland.

Landell Mills. 2012 Final technical report STRATEGIC ASSESSMENT OF AQUACULTURE POTENTIAL IN HAITI, 2012 Project Ref. Number: N° CAR/3.1/B12 Region: Caribbean Country:

Haiti October 2012 Project implemented by: Landell Mills "Strengthening Fisheries Management in ACP Countries

LEVE 2014. Value Chain Assessment Annex 3. Agribusiness Sector Assessment Local Enterprise and Value Chain Enhancement (LEVE) Project <https://haitileveproject.org/wp-content/uploads/2015/06/Annex-3.-LEVE-Agribusiness-Sector-Assessment.pdf>

LEVE. 2016. Report on Local Fish Feed Production Opportunities LOCAL ENTERPRISE AND VALUE CHAIN ENHANCEMENT (LEVE) PROJECT. RTI International

Locher, U. 1988. Land distribution, land tenure and land erosion in Haiti. Paper presented at the Twelfth Annual Conference of the Society for Caribbean Studies, July 12–14, High Leigh Conference Centre, Hoddesdon, Hertfordshire, UK.

Lovell, R.T. and D.D. Moss. 1971. Fishculture Survey Report for Haiti International Center for Aquaculture and Fisheries and Allied Aquacultures. Auburn University, Alabama.

Lundahl, Mats. 1983. The Haitian economy: Man, land, and markets. New York: St. Martin's.

Mackenzie, David, Goat Husbandry. Boston: Faber and Faber Ltd., 1980. National Research Council, Committee on Animal Nutrition. Nutrient Requirements of Goats: Angora, Dairy and Meat Goats in Temperate and Tropical Countries. Washington, D.C.: National Academy Press, 1981.

MARNDR 2007 Etude de la filière pêche en Haïti et propositions de stratégie d'appui au secteur Institut de Recherche et d'Applications des Méthodes. PROGRAMME DE DÉVELOPPEMENT RURAL DES ZONES CENTRE ET SUD D'HAÏTI. Gilles Damais, Philippe de Verdilhac, Anthony Simon, Dario Styve Célestin

MARNDR 2010. Programme National pour le Développement de L'Aquaculture en Haïti 2010-2014.

Matthes, Hubert. 1988. Evaluation de la Situation de la Pêche sur les Lacs en Haiti. Augumentation de la production de poissons en Haitipar l'Aquaculture et la Peche Continentale. FAO Project HAI/88/003. 48 p.

McLain, R.J., D.M. Stienbarger, and M.O. Sprumont. 1988. Land tenure and land use in southern Haiti: Case studies of the Les Anglais and Grande Ravine du Sud watersheds. LTC Research Paper 95. Madison: Land Tenure Center, University of Wisconsin- Madison. Mimeo.

Miller, James. 2015. Rapid Fisheries Sector Assessment – Three Bays National Park. The Nature Conservancy Report. 49 p.

Murray, Gerald F. 1978a. Land tenure, land insecurity, and planned agricultural development among Haitian peasants. Report for United States Agency for International Development (USAID). Port-au-Prince, Haiti: USAID. Mimeo.

Murray, Gerald F. 1978b. Hillsides units, wage labor, and rural Haitian land tenure: A proposal for the organization of erosion control projects. Report for United States Agency for International Development (USAID). Port-au-Prince, Haiti: USAID. Mimeo.

Murray, Gerald F. 1985 Land, Trees and Tenure: Proceedings of an International Workshop on Tenure in Agroforestry. Published in 1987

Murray, Gerald F. 1985 Land, Trees and Tenure: Proceedings of an International Workshop on Tenure in Agroforestry. Published in 1987

O'Connor, M.R. 2016 One of the most repeated facts About Haiti is a lie https://news.vice.com/en_us/article/43qy9n/one-of-the-most-repeated-facts-about-deforestation-in-haiti-is-a-lie

Oke, O.L. (1990). "Roots, tubers, plantains and bananas in human nutrition". (FAO Food and Nutrition Series, No. 24) FAO.

Park Young W. 2011 Goat Milk Products: Quality, Composition, Processing, Marketing Agricultural Research Station, Fort Valley State University, Fort Valley, Georgia, U.S.A.

Park, Y.W. and M. R. Guo. 2006. Goat Milk Products: Processing Technology, Types and Consumption Trends. In: Handbook of Milk of Non-Bovine Mammals. Y.W. Park and G.F.W. Haenlein, eds. Blackwell Publishers. Ames, Iowa and Oxford, England. Pp. 59-106.

Programme National de Lacs Collinaires. 2012. Report on 100 Lacs Collinaires Constitut par le programme Nationale. 132 p. (Wilson Celestin managed this program which constructed 100 lakes).

Quinlan, M. 2005. Considerations for collecting freelists in the field: Examples from ethnobotany. Field Methods 17 (3): 219–34.

Reef Check 2011 "Haiti's Reefs Most Overfished in the World" Post date : 2011-03-30 http://reefcheck.org/news/news_detail.php?id=726

REPORT OF THE MULTIDISCIPLINARY SURVEY OF THE FISHERIES OF HAITI Funded by the Commission of the European Union Under Lomé IV - Project No. 7: ACP: RPR: 385

Romelus, Zacharie. 2005. Pêche maritime et sa contribution dans le revenu des agro pêcheurs de la commune d'Anse d'Hainault. 45p.

Romney, A. K., C. C. Moore, W. H. Batchelder, and T.-L. Hsia. 2000. Statistical methods for characterizing similarities and differences between semantic structures. Proceedings of the National Academy of Sciences, USA 99:518–23.

Romney, A. K., J. P. Boyd, C. C. Moore, W. H. Batchelder, and T. Brazill. 1996. Culture as shared cognitive representations. Proceedings of the National Academy of Sciences, USA 93:4699–705.

Romney, A. Kimball, Susan C. Weller, and William H. Batchelder. 1986. Culture as Consensus: A Theory of Culture and Informant Accuracy. In *American Anthropologist, New Series*, Vol. 88, No. 2 (Jun.), pp. 313-338.

Sands, M and R.E. McDowell. The Potential of the Goat for Milk Production in the Tropics. Ithaca, New York: Cornell University Press, 1972.

Schwartz, Timothy. 2009. Sex, Family & Fertility in Haiti. Create Space.

Schwartz, Timothy. 2015 Haiti Hope Project 2015 Annual Survey and Evaluation. echnoServe/USAID/IDB/Coca Cola.

Sea Watch Accessed 8/10/2013 Eastern Pacific Ocean Marlin off Mexico..... Doomed?

Sinn, Rosalee, Raising Goats for Milk and Meat. Little Rock, Arkansas: Heifer Project International, 1984.

Soderberg, R.W. 2014. Environmental Assessment for Lake Azuei Tilapia Cage Farm. 12 p. USAID. 2006. Proceedings of the Fish Feeds Forum. Fisheries Investment for Sustainable Harvest Project. USAID. Coop. Agreement: 617-A-00-05-00003-00. Auburn Fisheries Dept.

Stam, Talitha 2012. From Gardens to Markets – a Madam Sara perspective (2012). Cordaid.

TechnoServe 2014 CASE STUDY. Unlocking Credit for Haiti's Smallholder Mango Producers

Tessier, E. 1995. Elaboration d'un suivi des statistiques de pêche pour la Réunion. DOC. ASS. Thon, IFREMER, la Réunion, 27p.

Theford, T.R., Goat Health Handbook: A Field Guide for Producers with Limited Veterinary Experience. Morrilton, Arkansas: Winrock International, 1983.

Timyan, Joel. 1996. BWAYO: IMPORTANT TREES OF HAITI. USAID. South-East Consortium for International Development. Washington D.C.

USAID/WINNER 2015a <http://www.winnerhaiti.com/index.php/en/mirebalais-and-saut-d-eau>

Weller, S. C., and A. K. Romney. 1988. Systematic data collection. Newbury Park, CA: Sage.

Weller, S. C., and A. K. Romney. 1988. Systematic data collection. Newbury Park, CA: Sage.

White, T.A. and C.F. Runge. 1994. Common property and collective action: Lessons from cooperative watershed management in Haiti. *Economic Development and Cultural Change* 43(1): 1–41.

White, T.A. and C.F. Runge. 1994. Common property and collective action: Lessons from cooperative watershed management in Haiti. *Economic Development and Cultural Change* 43(1): 1–41.

World Bank 2016 Rural population (% of total population). World Bank Staff estimates based on United Nations, World Urbanization Prospects.

ANNEX

18. Annex 1: Trees

FRUIT TREE	Abriko (n = 109)		Fon Kochon (n = 109)		Voldrog (n = 105)		Wo Ginode (n = 128)		Total (n = 451)	
	Before Matthew	Currently	Before Matthew	Currently	Before Matthew	Currently	Before Matthew	Currently	Before Matthew	Currently
Mangos	70%	73%	69%	52%	58%	32%	75%	63%	68%	56%
Breadfruit	63%	54%	34%	25%	21%	16%	73%	72%	49%	43%
Sour oranges	54%	27%	71%	42%	80%	41%	55%	35%	64%	36%
Papaya	47%	43%	39%	23%	46%	29%	53%	43%	46%	35%
Avocados	47%	24%	53%	46%	72%	46%	47%	26%	54%	35%
Grapefruit	46%	16%	75%	39%	72%	27%	40%	13%	57%	23%
Corosol	61%	39%	32%	17%	30%	12%	47%	23%	43%	23%
Coconut	75%	36%	21%	3%	25%	8%	62%	9%	47%	14%
Cocoa	21%	4%	7%	2%	10%	7%	48%	27%	23%	11%
Guave	23%	16%	15%	5%	21%	10%	20%	10%	20%	10%
Abricot	51%	21%	9%	2%	7%	1%	35%	11%	26%	9%
Coffee	7%	2%	22%	8%	31%	7%	22%	12%	21%	7%
Cachiman	17%	13%	6%	0%	3%	3%	16%	7%	11%	6%
Sweet oranges	50%	7%	58%	4%	72%	4%	53%	8%	58%	6%
Cayemite	8%	6%	5%	1%	5%	4%	10%	6%	7%	4%
Breadfruit nuts	9%	1%	12%	7%	3%	0%	13%	5%	10%	4%
Kenep	18%	9%	1%	2%	2%	0%	8%	1%	7%	3%
Limes	20%	6%	6%	0%	8%	3%	7%	2%	10%	3%
Almonds	7%	6%	1%	1%	9%	2%	8%	2%	6%	3%
Cherry	6%	4%	0%	0%	1%	1%	2%	0%	2%	1%
Cashews	2%	0%	2%	1%	2%	0%	7%	2%	3%	1%
Tangerine	1%	0%	1%	0%	0%	0%	1%	1%	1%	0%
Karambola	1%	0%	1%	0%	0%	0%	2%	0%	1%	0%
Sapotille	0%	0%	0%	0%	2%	0%	2%	0%	1%	0%
Tamarin	1%	0%	1%	0%	0%	0%	3%	0%	1%	0%
Other	8%	14%	8%	18%	9%	29%	9%	21%	9%	20%
None	6%	6%	3%	13%	7%	25%	2%	3%	4%	11%

WOOD TREE	Abriko (n = 109)		Fon Kochon (n = 109)		Voldrog (n = 105)		Wo Ginode (n = 128)		Total (n = 451)	
	Before	Currently	Before	Currently	Before	Currently	Before	Currently	Before	Currently
Cedar	67%	49%	58%	28%	57%	29%	23%	11%	50%	28%
Mahagony Local	59%	49%	9%	6%	18%	6%	30%	12%	29%	18%
Fwenn	45%	27%	31%	17%	24%	8%	7%	3%	26%	13%
Mahagony Foreign	54%	44%	8%	7%	12%	4%	20%	8%	24%	16%
Oak	65%	43%	10%	5%	5%	0%	6%	5%	21%	13%
Mango	18%	7%	1%	0%	0%	0%	8%	6%	7%	4%
Lam	0%	2%	2%	0%	4%	0%	13%	16%	5%	5%
Grigri	2%	0%	0%	0%	1%	0%	12%	0%	4%	0%
Royal Palm	3%	2%	2%	1%	0%	1%	5%	2%	2%	1%
Iorye	0%	0%	1%	6%	5%	0%	0%	9%	1%	4%
Eucalyptis	0%	1%	0%	0%	2%	0%	1%	1%	1%	0%
Bayawonn	2%	1%	0%	0%	0%	0%	0%	1%	0%	0%
Acacia	2%	0%	0%	0%	0%	0%	0%	1%	0%	0%
Taveno	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Flanbwayan	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Saman	0%	0%	1%	0%	1%	1%	0%	0%	0%	0%
Bouziyet	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%
Sikren	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%
Bwa Pie	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Bwa Soumi	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%
Delen	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Lucena	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Neem	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Piyon	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Mawo	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Monben	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%
Zaboka	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%
Other	27%	27%	34%	19%	40%	15%	52%	41%	39%	26%
None	6%	20%	31%	57%	31%	68%	28%	47%	24%	48%

Rates of Decline from Before Matthew to Present by Tree and Agro-Ecological Zone
(Negative numbers indicate and increase in the number of Trees)

Table A3: Fruit Trees per Household Before Matthew vs. After Matthew/Currently					
FRUIT TREE	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Mangos	-4%	17%	26%	12%	12%
Breadfruit	9%	9%	5%	2%	6%
Sour oranges	28%	28%	39%	20%	28%
Papaya	4%	16%	17%	10%	12%
Avocados	23%	7%	27%	21%	20%
Grapefruit	30%	37%	46%	27%	34%
Corosol	21%	16%	17%	24%	20%
Coconut	39%	18%	17%	52%	33%
Cocoa	17%	6%	3%	20%	12%
Guave	7%	10%	11%	10%	10%
Abricot	30%	7%	6%	24%	17%
Coffee	6%	14%	25%	10%	13%
Cachimán	4%	6%	0%	9%	5%
Sweet oranges	42%	54%	69%	45%	52%
Cayemite	2%	4%	1%	4%	3%
Breadfruit nuts	8%	5%	3%	8%	6%
Kenep	9%	-1%	2%	7%	4%
Limes	14%	6%	5%	5%	7%
Almonds	1%	0%	7%	5%	3%
Cherry	3%	0%	0%	2%	1%
Cashews	2%	1%	2%	5%	3%
Tangerine	1%	1%	0%	0%	0%
Karambola	1%	1%	0%	2%	1%
Sapotille	0%	0%	2%	2%	1%
Tamarin	1%	1%	0%	3%	1%
Other	-6%	-10%	-20%	-12%	-12%
None	-1%	-10%	-18%	-2%	-7%

Table A4: Wood Trees per Household Before Matthew vs. After Matthew/Currently					
WOOD TREE	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Cedar	18%	29%	29%	13%	22%
Mahagony Local	10%	3%	12%	19%	11%
Fwenn	18%	15%	16%	4%	13%
Mahagony Foreign	10%	1%	9%	12%	8%
Oak	22%	6%	5%	1%	8%
Mango	11%	1%	0%	2%	3%
Lam	-2%	2%	4%	-3%	0%
Grigri	2%	0%	1%	12%	4%
Royal Palm	1%	1%	-1%	3%	1%
Iorye	0%	-5%	5%	-9%	-2%
Eucalyptis	-1%	0%	2%	0%	0%
Bayawonn	1%	0%	0%	-1%	0%
Acacia	2%	0%	0%	-1%	0%
Taveno	0%	1%	1%	0%	0%
Flanbwayan	0%	1%	1%	0%	0%
Saman	0%	1%	0%	0%	0%
Bouziyet	0%	0%	0%	0%	0%
Sikren	0%	-1%	1%	0%	0%
Bwa Pie	0%	0%	0%	0%	0%
Bwa Soumi	-1%	0%	0%	0%	0%
Delen	0%	0%	0%	0%	0%
Lucena	0%	0%	0%	0%	0%
Neem	0%	0%	0%	0%	0%
Piyon	0%	0%	0%	0%	0%
Mawo	0%	0%	-1%	0%	0%
Monben	0%	0%	0%	-2%	0%
Zaboka	0%	-1%	0%	0%	0%
Other	0%	15%	25%	11%	12%
None	-15%	-26%	-36%	-19%	-24%

Lists of Names for Trees

Table A5: Kreyiol, English and Scientific Names for Trees		
Kreyol	English	Scientific Name
Abricot	Caribbean Apricot	Mammea Americana
Chadek	Grapefruit	Citrus × Paradisi
Gwayav	Guave	Psidium Guajava
Kafe	Coffee	Coffea Canephora & C. Arabica
Kakawo	Cocoa	Theobroma Cacao
Karambola	Karambola/Star Fruit	Averrhoa Carambola
Kawosol	Corosol	Annona Muricata
Kayemite	Cayemite	Chrysophyllum Cainito
Kenep	Spanish Lime	Melicoccus Bijugatus
Kokoye	Coconut	Cocos Nucifera
Lam	Bread_Fruit	Artocarpus Altilis
Labapen	Bread_Fruit Nuts	Artocarpus Altilis
Mandarin	Tangerine	Citrus Tangerina
Mango	Mangos	Mangifera Indica,
Nwa	Cashews	Anacardium Occidentale
Papay	Papaya	Carica Papaya
Sapotil	Star Fruit	Manilkara Huberi
Seriz	Cherry	Eugenia Uniflora
Sitwon	Limes	Citrus Aurantifolia
Tamarin	Tamarind	Tamarindus Indica
Zaboka	Avocados	Persea Americana
Zamon	Almonds	Terminalia Catappa
Zoranj	Oranges	Citrus × Sinensis
Zoranj Si	Sitter Oranges	Citrus × Aurantium
Sweetsop	Cachiman/Custard Apple	Annona Squamosa
Bayawonn	Mesquite	Prosopis Juliflora
Bwa Pie	Bwa Pie	Colubrina Arborescens
Bwa Soumi	Bwa Soumi	Cordia Alliodora
Chenn	Oak	Catalpa Longissima

Table A5: Kreyiol, English and Scientific Names for Trees		
Kreyol	English	Scientific Name
Delen	Delen	Leucaena Leucocephala
Fwenn/Doliv,Fwenn,Bwa Blan	Paradise Tree/Bitter Ash.	Simarouba Glauca
Kajou Etranje	Mahagony Foreign	Swietenia Macrophylla
Kajou Peyi	Mahagony Endemic	Swietenia Mahagoni,
Kasya	Acacia	Senna Siameabecame
Kaliptes	Eucalyptis	Eucalyptus Camaldulensis
Lisina	Lucena	Leucaena Leucocephala Ssp. Glabrata
Mang	Mango	Mangifera Indica
Nim/Lila	Neem	Azadirachta Indica
Palmis	Royal Palm	Roystonea Borinquena
Piyon	Piyon	Gliricidia Sepium
Sed	Cedar	Cedrela Odorata
Taveno	Taveno	Lysiloma Sabicu
Kanpech	Logwood	Haematoxylon Campechianum
Monben Bata	Broomstick	Trichilia Hirta
Ceiba	Mapou	Bombacaceae
Kalbas	Gourde Tree	Crescentia Cujete
Monben	Hog Plum	Spondias Mombin L.
Santa Maria, False Mamey	Danmari	Calophyllum Calaba L
Bird Cherry	Bwa Dinn	Pimenta Racemosa, Temstroemia Peduncularis, Eugenia Monticola
Sikren	Guaba	Inga Vera
Maskriti	Castor Bean	Ricinus Communis L.
Fwenn	Ash	Simarouba Glauca
Gomye	Turpentin, Gumbo Limbo	Bursera Simaruba
Sapoti Mawon	Wild Sapodilla	Manilkara Albescens
Dam Mari	Mast Wood, Beauty Leaf, West Indian Laurel	Calophyllum Calaba
Lorye	Laurel	Lauraceae
Lyan Panye	Hoop Vine	Trichostigma Octandrum

Table A5: Kreyiol, English and Scientific Names for Trees		
Kreyiol	English	Scientific Name
Grigri/Bwa Woz	Bullet Tree	Bucida Buceras
Bwa Panyol	Maidenplums	Comocladia Spp
Kandelab	Candelabra	Euphorbia Lactea
Bayonette, Pinguin	Dagger Plant, Spanish Bayonette	Yucca Aloifolia
Satanye	Soap Berry	Cupania Americana

19. Annex 2: Theoretical Assumptions Underlying Value Chains & Maps and Notab Selection

Theoretically, the maps used in this report are framed in a materialist perspective. The underlying assumption is that the most important features of a Mode of Production that researchers should understand and focus on are factual and concrete aspects of the infrastructure and structure. Thus, in making assumptions about causation, understanding how a market chain functions, and approaching the decision-making process regarding appropriate aid- interventions, priority is given first to environmental constraints and opportunities, including demographics and availability of raw materials. Priority is given next to economic and technological constraints and opportunities. Priority is then given to social structural constraints and opportunities. And ultimately, consideration is given to cultural, ideological and religious constraints and opportunities. None of this is to say that ideas and states of mind are not of tantamount importance. The point is simply that in understand what interventions will ultimately be most practical, aid practitioners must understand what already exists first in terms of environmental constraints, second in terms of social-structural constraints, and only then in terms of ideational constraints.

Figure A1: Materialist Cake of Culture

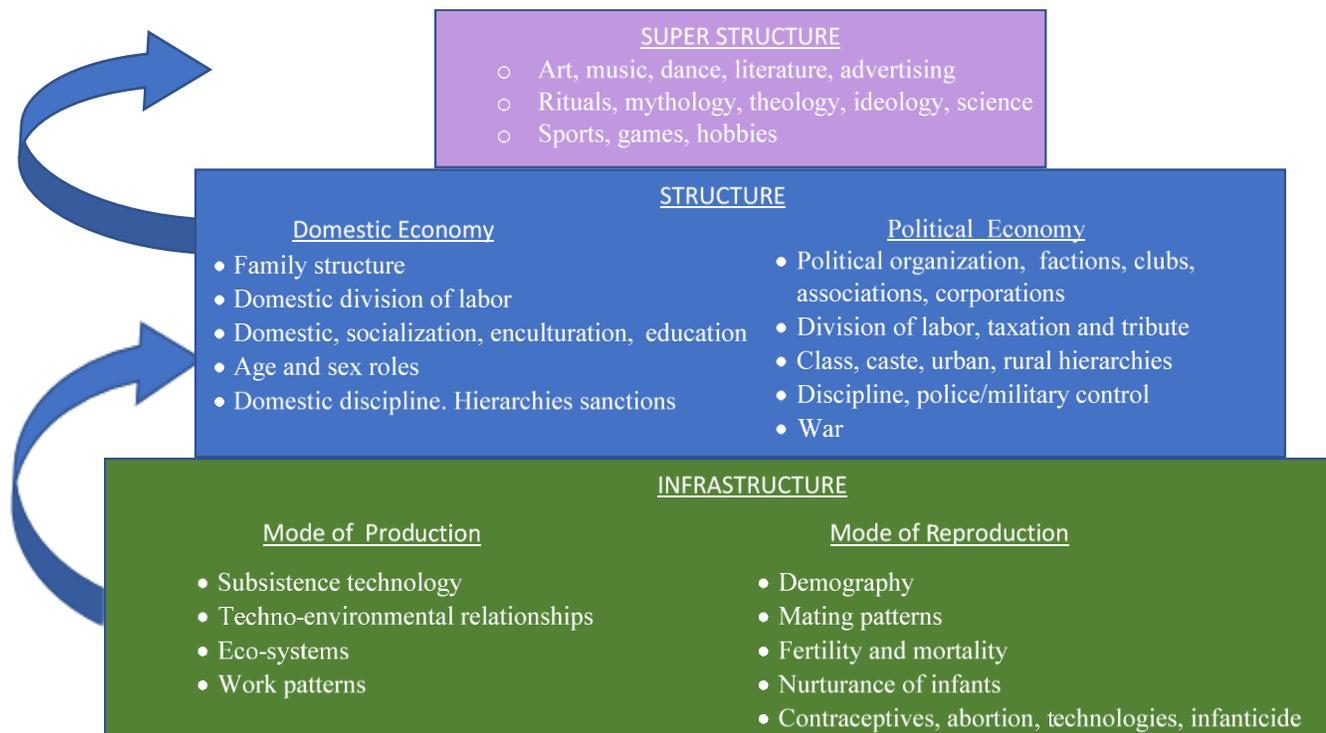
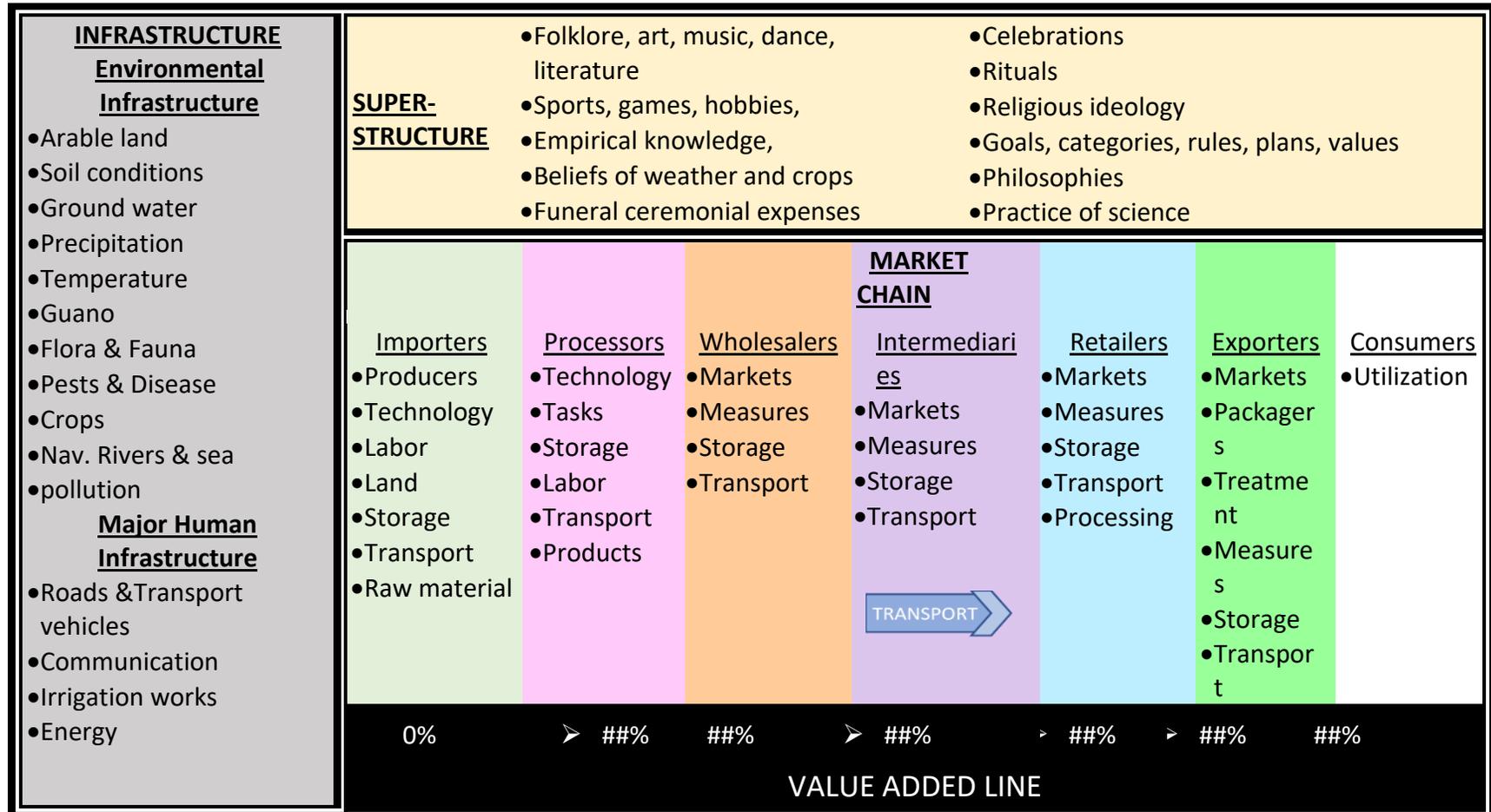


Figure A2: Materialist Cake of Culture



20. Annex 3: Cultural Consensus Analysis

TEXT BOX A1: THE MAGIC of CULTURAL CONSENSUS ANALYSIS

“...the correspondence between the answers of any two informants is a function of the extent to which each is correlated with the truth.”

[Romney et. al. 1986:

316]



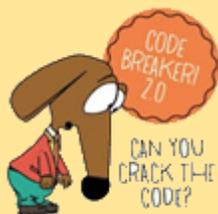
Specialists in Cultural Consensus Theory yields formal mathematical models that allow us to,

- a) determine competence of respondents by asking questions for which we do not know the answers
- b) detect correct answers without even knowing the questions

For example, an analyst using Cultural Consensus Theory techniques can ask a random group of say 50 people about the rules of soccer. Any particular individual's responses will depend on how much that person knows about the game. Soccer fanatics will all tend to respond the same, with the correct answers. Those who somewhat know the game will respond correctly to some questions but will not know the answers to others and will therefore either not respond at all or will respond randomly, i.e. they will guess. Those who know nothing at all about the rules of soccer will consistently not respond to questions, or they will respond randomly, guessing at all the answers.

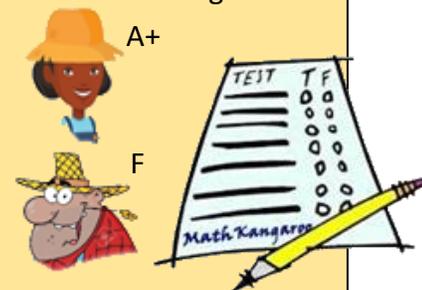
Thus, a pattern forms. When questions became exceptionally difficult, only those respondents most knowledgeable about the game of soccer will respond correctly. And these people will typically have the same answer, i.e. the correct one. Responses from other informants tend to be blank or randomly distributed. So there emerges what Romney et. al. term a “concordance code” of socially shared information. In this case the information is about the rules of soccer.

Cracking that “concordance code” can be done by systematically evaluating the answer given by each respondent vis a vis the other respondents. It is this ‘analysis of consensus’ among respondents that allows us to determine with mathematical precision the competence of each informant regarding the rules of soccer. And it allows us to determine with mathematical precision the correct answers to questions even when we don't know what those questions are. This is true whether we are talking about true/false questions, multiple choice, or fill in the blank.



These same formulas have long been used in high schools and Universities to inform professors of bad exam questions. For example, when a particular question and/or answer is simply wrong or perhaps the information was not even taught in the course, the students do not know the answer and hence guess. Thus, the pattern of responses from the students on these bad questions goes random. Even the brightest and most competent students—as indicated by the concordance code—tend to get those answers wrong.

What these patterns mean for Humanitarian Aid targeting is that we can build on the freq-listing model and use the algorithms that Cultural Consensus Analysts provide to determine experts or to select most appreciated *notab*. Once we have these lists, we can ask the *notab* other questions and come up with new “concordance codes” that tell us which *notab* are most competent and honest. In effect, we can grade *notab* like students, determining who are the best and brightest.



21. Annex 4: Goats

Points that Should be Understood about Goats in General

History

Goats

are one of the earliest domesticates, going back some 9,000 years to were domesticated.

Goat Breeds

According to the internet site GoatWorld (<http://www.goatworld.com>), there are 210 different breeds of goats, ranging from 22-pound pygmy goats to 350 pounds for some South African goats. Haitians in Jeremie area, however, only recognize two kinds of goat: Kabrit Peyi (Haitian Goats) and Kabrit Amelyore (improved/imported goats).

Terminology

Non-neutered males are called bucks, neutered goats are called wethers, adult females are does, offspring are called kids, a group of goats is a flock.

Behavior

Goats are intensely curious, gentle and easy to rear. Even children can handle them. They bond with other animals and humans, quickly learn to recognize their owners and will follow them and even actively seek their protection when threatened or assistance when challenged or trapped.

Eating Habits and Comparison to other Livestock

Goats are ruminants, the same as cattle, meaning they have 4-stomachs. However, they are not grazers. They are browsers. They eat the tips of leaves, bushes, and barks, and hence do not compete for foods that people or other domestic animals use. They are not as destructive as pigs in that they do not root nor wallow.

Physical Characteristics

Goats in Haiti average about 60 pounds and top out at about 100 pounds. Most have horns and beards. Some have manes.

Lifespan and Breeding

Goats will live for 10 to 12 years (in Haiti they probably live 1 to 3 years on average; see section below). They may breed at any month of the year. Most females reach sexual maturity at about five months. Even if underfed and poorly nourished, they usually bear their first offspring by 12 to 15 months. The typical birth interval varies from 260 to 290 days. The average litter size varies from 1.4 to 2.2 kids. The kidding interval is about 280 days. A female should produce young three times in two years, or 2.1 to 3.3 kids per year.

As Meat

About 10% of red meat produced worldwide comes from goat. Goat meat can be cooked in all the traditional ways—frying, grilling, baking. It can be canned, minced, curried, or turned into

sausage. In Haiti it is typically only boiled and then broiled and sometimes washed in citrus juice, salted and sundried.

Milk

Although only 2 percent of the world human milk comes from goat, more people consume goat dairy products than from any other animal. The milk is made into over 400 varieties of goat cheese,^{xi} as well as buttermilk, yogurt and sour cream, kefir, clarified butterfat, and soap. The milk is more digestible than cow milk, has less lactose so less of a problem for lactose intolerant, and less of a problem for allergies. Goat milk production is about 9 to 10 per cent of their body weight per day vs. a dairy cow at 5 to 6 per cent of their body weight. To accomplish this a goat needs to eat 5 to 7 per cent of her body weight daily; a dairy cow eats up to 4 per cent of her body weight per day. Milk yields of goats vary significantly. A doe can produce as much as 500 kilograms of milk per year (about 60 gallons), however, rates for the poor are typically much less. In Bangladesh, the average goat milk yield is about 80 kg/year, while in India and Pakistan it is more than 140 kg/year. As seen below in the section about goats in the Grand Anse, does in Haiti are seldom utilized for their milk.

Other products

Goat intestine is used to make "catgut", a material for surgical sutures and strings for musical instruments. Horn of the goat used in crafts to make earrings and pendants. Goats can be shorn of their hair twice per day and the hair used to make wool, such as Cashmere, one of the one of the most expensive natural fibers in the world. Most importantly, goatskin is used as leather for gloves, boots, shoes and rugs. As seen below, goatskin in the Grand Anse is typically either consumed and sometimes used for to make chair seats, but rarely sold or used for any other activity.

22. Annex 5: Fish Market Chain

Purchasing, Processing, Storage, Transport and Market

Purchasers

As with infrastructure and fishing materials and strategies, there are two chains: the traditional one and a more modern one linked to the urban developed consumers. The *machann* (trader), who buys with an eye toward the domestic and popular markets, represents the traditional chain. The *achtè* (buyer), who buys with an eye toward the high end urban market, represents the modern link.

A *machann*, almost always a woman, purchases, processes and sells fish. She buys the fish based on volume, not weight. She depends on labor from children, usually girls, and other female family members, to process the fish: specifically, gut, scrub with lime or sour oranges, heavily salt, and then sun-dry the fish on wooden racks. She may sell the cured fish to a sub-category of a *machann*, the *madam sara*,⁴ or she may herself be a *madan sara*. A *madan sara* is an itinerate market woman and the country's primary accumulator, transporter, and redistributor of agricultural produce, small animals, crafts, and fish.



Photo ##: A "machann" in Wozo with her dried fish

After processing the fish or buying already salted and dried fish, the *madan sara* transports her product to a local regional market or to fulltime market in one of the principal cities, e.g. Jeremie, Miragoane, or Port-au-Prince. There she either sells them to local consumers or to another *madan sara*.

The *achtè*, almost always a male, is linked to the modern deep sea industrial fishing strategies seen discussed above, those who use long lines and exploits FADs to catch large fish prized in urban restaurants, elite and expatriate households, and the tourist sector. As such he represents a relatively new market chain. The *achtè* deals only in fresh fish. He buys the fish based on weight not volume. He has an adult woman or child family member – usually a girl – clean the fish. He then preserves the fish on ice. He may sometimes sell the fish to a *machann* but he is usually linked to urban purchasers and his primary objective is to get the fish to the city on motorized

⁴ The term *madan sara* derives from a highly gregarious, little yellow and black bird introduced to Haiti from Sub-Saharan Africa. Known in English as a Village Weaver (*Ploceus cucullatus*), the female seems to be constantly collecting food and twigs and carrying them back to her nest, usually in a tree full of hundreds of other nesting *madan sara*. Similar to the buzz of voices heard from Haiti's rural markets, the traveler knows when approaching a colony of *madan sara* because of the noisy din of chatter from hundreds of busy birds.

sea vessel or bus or take them himself by boat or bus to the urban market. (Elsewhere in Haiti the *achtè* shares his position with the "association" which also purchases for the urban market. But for the current study we only see the association in Anse Hainaut region.)

As seen in the discussion of Anse Hainaut, industrial deep-sea fishermen earn significantly higher income for their efforts. This derives not only from bigger fish and more of them, but from the fact that fresh fish yield 40 to 60% greater prices than what the *machann* can fetch in the local regional market or the urban popular market. The map on the following page illustrates two market chains.



Photo ##: An "Achtè" weighing fish

Understanding the Purchasing, Processing, Storage, Transport and

Capital and Credit

A significant and telling characteristic of the entire fishing production and marketing system is that the fishermen carry the burden of capitalizing the rest of the market chain. Rather than urban agencies, the *achtè* or *machann* giving credit to fisherman so that they can invest in materials and supply fish to the market, it is the fisherman who gives fish on credit to the *machann* and *achtè*. However, the *machann* is more inclined to lend the fisherman money when he is in need. The *machann* also more often a wife, or family member of the fisherman or at least a local woman. The loan that she sometimes extends and the fact that she is embedded in the fisherman's personal family or social network also means that she exercises an influence on him beyond the sale price of fish. When the fisherman does sell to the *achtè* he often preserves his relationship by sharing part of the proceeds with a *machann*. This personal relationship adds a level of risk management and social integration that goes beyond that most fishermen have with the *achtè*. Moreover, because the *machann* is often family means that the profits from the fish might be less overall, but the fisherman's household reaps rewards at more than one value added link in the market chain.

NGO Interventions, Associations and the Market Chain: Putting Women out of Business

NGOs have intervened in the purchasing-processing-storage-and-marketing chain to help fisherman get better prices for their fish and thereby bolster income to impoverished households. In doing so, they encourage the formation of male dominated fishing associations. In addition to help with offshore fishing, they also often provide the associations with coolers and cold rooms for conserving fish and they help link the associations to urban purchasers. In doing so they may have delivered two inimical blows to the impoverished households that depend on fishing:

- 1) by encouraging the sale of fish directly to urban markets they deprive households of the opportunity to profit at three additional links in the value-added chain: processing, transport, and sales.

2) by helping facilitate the entrance into the market chain of male dominated associations, they may have unwittingly initiated a process of supplanting women from the fishing market chain; indeed, the oddity of the male *achtè* in the midst of the almost entirely female dominated sphere of rural market intermediaries suggests that his role may have evolved from the associations.

Purchasing, Processing, Storage, Transport and Market

Several points leap out regarding the market system. First off, it is left to the fisherman to underwrite the trade in fish by providing credit to purchasers in an environment of scarce capital, tenuous market conditions, and difficulty in reaching. The *achtè* offers a better return: his prices are 40% to 60% higher prices than the *machann*, a profit that fishermen are loathe to forego. But with the *achtè* there is greater risk. Given the poor infrastructural conditions, political and natural disasters that occur in Haiti, the *achtè* could and sometimes does lose everything, or, when all else fails, he unloads his stock on the *machann*. The *machann*, by virtue of curing her fish and access to the vibrant local market, is unlikely to lose anything at all. If she cannot sell her fish, her family can eat them over a long period of time. Moreover, with the *machann* there is the consideration of investment in social relations, capturing household income at multiple points of the market chain, and risk management. The fisherman who is not loyal to his *machann* runs the risk of losing an important source of support during times hard times when he might wish to borrow money from her. By selling to the *achtè* he is also working against what is his most important source of social security, household level production and the local marketing system.

Fish farming experience???

Success stories??

Tilapia history???

Advantages

Gender

Possibilities for HEKS-EPER

23. Annex 6:

FOCUS GROUP REPORT COMMENTARY ORGANIZED BY TOPIC



Islande Jean of UMCOR Orchestrating a Focus Group in Guiotte

1. Introduction

Drawing on the *notab* contacts achieved through Freq-Listing, Socio-Dig organize 12 community-focus groups at locations throughout the HEKS-EPER activity area. Four focus groups were conducted for each of the selected value chains: Fish, Trees, and Goats. The focus groups were recorded and fully transcribed at the Socio-Dig home office in Thomassin. Together with key informant interviews, they were used in the previous sections to develop maps of the value chains. For each value chain, we selected two focus groups that provided the most insight into the respective topic and then fully translated them into English, organized them according to topic, and presenting in the following pages. In this way, HEKS EPER staff in Switzerland can read firsthand explanations and accounts from their rural Haitian beneficiaries. The objective was to create a document that, rather than reading through in its entirety, readers could use as a reference source. We provide an index of the topics on the following page.

2. FISHING

Fishing Focus Group Abriko 01/30/18

List of Participants

- #3 Female, age 73, Unkwn Children, Fish Trader, farmer, 26, 2nd Grade
- #21 Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade
- #17 Female, age 50, 8 Children, Fish Trader, 17, No education
- #31 Female, age 50, 7 Children, Fish Trader, farmer, 31, No education
- #20 Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade
- #5 Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade
- #15 Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade
- #19 Female, age 31, 2 Children, Fish Trader, No education
- #16 Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade
- #18 Female, age 40, 5 Children, Fish Trader & Farmer, No education
- #20: Male, 49 years, 7 Children, Fisherman & Farmer, No Education
- #19: Male, 35 years, 5 Children, Fisherman, Secondary
- #5: Male, 38 years, 3 Children, Fisherman & Farmer, No Education
- #16: Male, 32 years, 1 Child, Fisherman & Farmer, 2nd Grade
- #15: Male, 53 years, 7 Children, Fisherman & Farmer, 8th Grade
- #18: Male, 34 years, Unknown Children, Teacher, Fisherman & Farmer, 3rd Grade

##On becoming a Fisherman

Natacha: I know all of you are fishermen, but is there anyone among you that would prefer to do something else besides fishing?

Natacha: Do you see it as your profession? Or just the product of your situation?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): That's a good question. In Haiti, people don't always [have the luxury to] choose a vocation.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): It's just the situation that you are born into.

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): You do it in order to provide for yourself. It's true for other professions as well. There are many carpenters that don't want to be carpenters...maybe they really want to be engineers or doctors.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):But they have to make the best of their situation...

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Their mother couldn't send teach them something different and their father couldn't do anything else, so they had no other option but to follow the same path. Many people who fish don't do it as a vocation. They just see it as a way to make money. As a result, they never learn the trade, like how to select and tie the right hook. So they are relegated to working for other people. For example, if I make 1000 HTG, then I might give them 200 HTG. If they stick with it then they will learn and make more money, but not everyone does.

Tim: He doesn't know what he is doing?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): He comes to fish, but he is not a fishermen.

Natacha: What about you? If you are not a fishermen, then what are you?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Me?

Participants: (Laughter)

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): At my age it's a little late to learn something new...

Participants: (Laughter)

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):You said something that caught my attention about choosing a profession... It's not our fault or our parents' fault. You can't criticize mothers and fathers for not sending their children to school. My parents sent me to school, but I used to run away. I would hide behind the rocks and fish with a little line. They would come looking for me, calling my name. But I would stay hidden because I knew my dad would spank me. Ever since I was young I liked casting a line for fish.

Tim: You were after a large *balawou*! What did you catch?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):"Ti teta"

Participants: (Laughter)

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): “Batakòl”

Tim: Ti teta?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): *Batakòl* is a type of fish. He’s right it’s not a vocation, just something we picked up.

Gana: That you chose?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Not really. It was poverty that drove us to fishing. That was the best option to earn money. You might find a job working for somebody else, but that’s not always steady work. You also have to wait 15 days before they pay you.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): So you choose to do what is easiest instead.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): You get to be your own boss when you fish. God decides what you catch. There is no one else to order you around or take advantage you.

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer, 3rd Grade): You work for yourself

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): That independence drew us to fishing

##Types of Fish

Gana: To start, let’s compile a list of the most common fish in the area.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Ok, ok.

Tim: Give us the name of a fish that you catch.

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): We catch *balawou* (*Scomberesox saurus*)

Tim: What else?

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): We catch *doliv*.

Participants: Ton, he means ton (tuna, *Scombridae* f.).

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): Yes, tuna.

Tim: Are they the same thing: *doliv* and *ton*?

Participants: Yes

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): We also catch *bonit* (bonito, *Scombridae* f.).

Gana: Humm

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): *Dorad* (dorado, *Coryphaenidae* f.), *taza* (baraccuda, *Sphyraenidae Sphyraena*), *lake* (?), *kanma* (?), *karang* (trevally, *Carangidae* f.)

Gana: *Karang*?

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): And *batalake* (probably needlefish, *Belonidae*)

Gana: *Batalake*? That's the first time I've heard of that type of fish.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):When he says *batalake* he means *pilòt kola* (?)

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): *Pilòt kola* or another name is *kedrat*.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Do you follow? *Kedrat*

Natacha: So the fish has several names?

Participants: Yes, there you go

Tim: What other fish do you have?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Hmm, we already mentioned *karang*... There is also *diven*. What's the other name for *diven*, again? (Direct translation of *diven* is wine).

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): *Jelekse*?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): *Jelepse*

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): *Jilèt diven*, or *jilèt* (razor)

Natacha: *Jilèt* (razor)? (possibly surgeonfish, *Paracanthurus hepatus*)

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):It depends. In the deep ocean you find all types of fish: *balawou*, *taza*, *bonit*, *ton*, *dorad*.

Tim: Do you catch anything else in the sea? Such as eel or lobster?

Participants: (Laughter) Yes, you find those in the oceans as well.

Tim: Who buys them?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Fishing has suffered since Matthew. There are some species, like eel, that became harder to find in the commune of Abriko. The fishermen in Abriko have suffered a lot. Sometimes we don't catch anything.

Gana: Does anyone fish for conch?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, but mostly in the 1st communal section of Abriko. There are

Gana: Does that mean there are people who specialize in conch?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):There are a few people that mainly fish for conch and lobster

Gana: But you don't fish [for conch?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No

##Fishing Technologies

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, we catch them by *palan* fishing.

Gana: *Palan* fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):*Palan* fishing. It's a way to catch live fish.

Gana: Hmm, *Palan* fishing? I don't totally understand what that is...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):You use a hook.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): And you hook it

Gana: And that catches certain types of fish?

Tim: These are all fish that you catch in the deep ocean?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, we catch them at Fish Attracting Devices (FAD) in the deep water.

Gana: How else do you catch fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):We mainly engage in three types of fishing: we longline fish, we fish with nets and we fish in the deep sea platforms (FAD) (with rods). FAD fishing brings in the most money. That's how we catch *balawou*, *ton*, *dorad*, *bonit*, *pilot*. But when the [tide] is low we do *palan* fishing.

Gana: *Palan* fishing?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes. You catch a lot of types of fish that way, like *sad* (?).

Tim/Gana: *Palan*?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):It is a traditional way of fishing with a line.

Tim: Ahh ok, you use a line and hook on it?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Exactly. And you bait the hook.

Tim: Ok, you use line to catch *sad*, etc.?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):All kinds of fish. *Vivano* (live) fish.

Participants: All kinds

Tim: Those seem to all be large fish?

Participants: Yes, large fish.

Tim: I didn't hear anyone mention small fish, like *fen* (?).

Participants: We'll get to it, we'll say all of them (laughter)

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There are other ways to fish, but they require certain equipment, such as *pèch batri*.

Natacha: *Pèch batri*?

Participants: *Pèch batri*

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, *pèch lumiere*

Tim: Ah ok, got it. Do you have to dive to catch it?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): No, no. *Pèch batri* uses a light to attract fish to your boat so that you can catch them. You catch all kinds that way: *fen*, *dorad*, *kadino* (?).

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): *Lake* fish...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): All kinds of fish.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Another method of fishing is to use traps...

Gana: Wait, wait. So that makes four types of fishing: platform fishing, line fishing, fishing by light and fishing with traps?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, we use traps to catch *balbaren* (?), *fen*, *boutou* or *parokèt* (parrotfish, *Scaridae*).

Gana: *Boutou* or *parokèt* are the same?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): We also fish for other types of fish. When the fishing season isn't any good, we fish with nets. That way you catch other types of smaller fish, such as *tik* (?), *karang* (trevally, *Carangidae* f.), *kwoko* (?), *pwèlkon* (?) and *woma* (lobster, *Palinuridae* f.)

Participants: Yes, they sink to the bottom or move in the current.

Tim: But could you find the location with a GPS?

Participants: Exactly

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): You could register the location on a GPS unit...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): And then you use the device to return to it.

Tim: Have you heard of a "fish finder"?

Participants: "Fish finder"?

Tim: It's a tool that shows you where the fish are.

Participants: We've heard of it, but we don't have one.

Tim: You've heard of it?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, it uses “echo sound location.”

Tim: Right, it uses sonar to show the exact location of fish.

Participants: (Agreement)

Tim: Does anyone have a GPS unit?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, we don’t have one.

Tim: No one? So you don’t use one?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):We took a training course to use GPS technology.

Tim: Who provided the training?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):An organization that was assisting us.

Participants: It was the people from Food for the Poor

Tim: Food for the Poor? Were they the same people that gave you solar panels?

Participants: Yes

Tim: Did they also provide the white fiberglass boat (“chaloupe”)?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):That is from another organization.

Tim: Who?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):An organization called PADI

Tim: PADI gave you the white boat?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):We purchased it...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): From Jeremie

Tim: You paid?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): We purchased it on credit

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):We pay a little back each month

Gana: Does the boat belong to an association or is it owned by an individual?

Participants: It’s privately owned by a group of fishermen

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): 3 or 4 [fishermen]

Tim: PADI financed the credit?

Participants: Yes

Tim: How much does a boat like that cost?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): 135,000 HTG

Participants: No, it was more...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):That was the retail price?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No, that was the subsidized price that PADI provided.

Tim: They contributed to the purchase with their own funds?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, exactly.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): All together, it could cost up to 66,000 – 67,000 *dola* (330,000 – 335,000 HTG)

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Haitian *dola*

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): That sounds about right, because [PADI] agreed to pay half of the price. And we paid 135,000 HTG.

Tim: That makes sense.

Gana: Ok, returning to the fish in the area. You listed many different types of fish, but what type do you fish for the most?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): It depends on the time of year. For example, at this time we mostly fish at the FAD platforms for *balawou* and *ton*. Those are the fish that bring in the most money, because they are big and they are harder to catch. There are times when fishing at the FAD is not possible, so we catch and sell a lot of the other types of fish instead... Line fishing is important for many of us, especially starting in February and March. But it can be difficult. You can spend the whole night line fishing and not catch much. In general, fishing at the FAD platform has a better chance to bring in money, plus you can do it during the day. That's why we prioritize it.

Tim: Can you line fish anywhere?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): No, not everywhere

Tim: What about fishing at a FAD? Where do you install the platforms?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): It has to be in deeper water. Some people say at least 300 feet down. But starting at 15 feet to 150 feet depth. You have to go much deeper to catch *kadino* or *devin* or *dowon* (?).

Tim: What do you use for bait on the hook?

Participants: *Sadin* (sardines)

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): *Krapo lanmè* (literal: frog of the sea)

Gana: *Krapo lanmè*?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): That's *pyèv* (?)

Tim: *Pyèv*?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): *Wi*

Tim: Is that a plant?

Gana: *Pyèv* is a sea creature. It has lots of legs.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): *Chat wouj* (octopus)

Tim: Ok, ok I understand. You use that when line fishing?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Yes, as bait.

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): Also *lanbi* (conch, *Lobatus gigas*)

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Yes, for the most part. You can still spot the occasional person line fishing during the off season, but the current becomes stronger. It can be difficult to spear fish as well. Personally, I think spear fishing is better in the current, but you waste a lot of time finding the location.

Gana: Ok, ok.

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): It's much easier to find with a GPS, it's easier to find it. It leads you directly to the location where the fish are. It could be helpful to locate fishing traps as well. We use several tools to fish, such as traps, lines, nets...

Tim: When do you make the traps?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): As soon as the "nòde" is ready (Abriko, May be a reference to the bamboo maturing to make the traps?). At this time you might find enough material to make a 2 or 3 traps, but starting in May there is enough to make a lot of traps.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): March, April and May

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): All the way until the month October.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, that's the best time to make them.

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Right now there's only a few people fishing with traps in the area, because the conditions are dangerous. The [current] can break the traps.

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): I want to add to that. GPS technology would be very helpful. The problem is that donors only provide training. They don't provide the equipment to use the training. When I asked the price for a GPS unit, they said they didn't know...

Gana: Did you ask Alex to check on the price for you?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No, it's hard to track Alex down.

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Even the people who provide the training don't know the price. They were given the GPS units by the donor.

Tim: Where do you find line for your nets?

#15/#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): That's private property...

Tim: But where does one find the material?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): You buy it.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): You buy it in the store.

Tim: Do they sell line in the stores here?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): In Jeremie

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Or Port-au-Prince

Tim: What if I need a mask to dive?

Participants: From Jeremie or Port-au-Prince

Tim: What about a net?

Participants: Everything comes from Jeremie or Port-au-Prince

Tim: Is there no supply store here?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): None at all. That's one of the biggest problem we face as FAD fishermen here. We can't find the right line. There's a type of line called dayilòn (nylon?) that we need to fish.

Tim: A line that is very strong?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, 150, 160, 180 [lbs weigh limit]. It's hard to come by. You have to get it from the Dominican Republic.

Tim: It's only in Dominican Republic?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Dominican Republic

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Sometimes you can find it in Jeremie

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): No, not even in Port-au-Prince

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): The Dominican Republic or from Miami

Tim: Ok, but there is another type of net. It's very fine and made with line...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Layilon (nylon?)

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Is it a blue net?

Tim: It's very durable. It can last a lifetime.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, it lasts a long time. It helps us a lot.

Tim: Where do you find that material?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Dominican Republic

Participants: Dominican Republic

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Sometimes you can find it in Les Cayes

Tim: Are there people here that travel to the Dominican Republic to purchase it?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There are some people who make a business doing it.

Tim: They come and go regularly?

Participants: Yes

Tim: Do you give them money to purchase it for you? Or purchase it when they return?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):They buy it and resell it for a profit.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): If I needed it, I would go to Les Cayes myself.

Tim: How many nets are in the area?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):6 or 7

Tim: Does each net have an assigned fishing area?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No

Tim: Can you cast the net any where you want?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No there are certain norms to follow. If another group has a claim to a spot you have to give them priority.

Tim: What about if they are repairing their net.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Then you can take their place. For example, if they are already pulling in their catch, then you have the right to cast your net at the location. It will take them a long time to pull in their net.

Tim: You said there were 6 or 7 nets in the area?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, there are several in operation

Tim: Do all of the nets have a single owner? Or do many people share the same net?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Some people have 2 nets, one for large fish and one for sardines.

Tim: Do you use the sardines for bait or do you sell them?

Participants: Sell them

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):They use some as bait for line fishing in the deep ocean

Tim: Do people catch fish from the shore as well?

Participants: Sure

Tim: Do you have any issue with that?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, it's not a problem

Tim: Even if they catch all the small fish?

Participants: (Laughter) Yes

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): We purchase our fishing gear directly from the store. We receive subsidies from Food for the Poor to purchase equipment and supplies. They provided the boats, fishing line, hooks and other things we needed to fish. Food for the Poor have supported us immensely.

Gana: Do you purchase them yourselves or...

Tim: Look, let me change the subject a little. When I visit other places they always tell me if you need a "bwa fouye" that Abriko is the place to get it.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): It was, but after Hurricane Matthew it's hard to come by...

Tim: You can't find any or you don't have any wood to make it?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Destroyed...

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): There's no wood for it.

Tim: In the past, did you make a lot?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Sure

Tim: Do you have any examples?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): If we could we would offer you a beautiful abriko fruit to eat.

Natacha: How many types of nets do you use?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): We had several types, but lost them in the hurricane

Natacha: What are they called?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There are simple nets, blue nets, seine nets, "3 nap" (literally 3 sheets), "pase" net

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): "3 nap" has several "nap"

Gamna: Several layers?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes

Natacha: Does that mean there is a special net to catch eels?

Participants: You can catch it with a mosquito net.

Tim: Does that work the same way as a seine net?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, but the weave is much smaller

Tim: How many people are required [to fish with a seine net]?

Tim: We haven't talked about diving until now. Is diving not one of your methods of fishing?

Tim: Do you have a compressor? (spear gun or air compressor?)

#16/#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No, we don't have one.

Tim: Does that mean you don't dive?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): I used to a long time ago to support my 7 children...but I have reached an age where it is too difficult. You need the equipment and you need to be in shape. I can't dive as deep as I used to or spend a long time underwater any more.

Tim: Are there other youth that do it today?

Participants: There are a ton of youth.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, there are several in the locality.

Tim: Does it bring in money?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):For sure, it's a source of income

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):At least 20%

Tim: 20%?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes

Tim: Spearfishing accounts for 20% of the weight of all the fish you catch?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, from spearfishing

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): That's how most people catch lobster

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):But if the water is stirred up it's difficult to catch anything

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Sometimes you encounter 4, 5 or 6 lobsters, all walking in a line

Tim: (Laughter) I've heard of that.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): You don't see that any more. The country has fallen on hard times.

##Fishing seasons and Times

Natacha: Is there a season that you fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes

Natacha: Does each fish have a specific time to catch it?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Sure, each has its own time...

Natacha: Can you always find them in the ocean?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):It depends. In the deep ocean you find all types of fish: *balawou, taza, bonit, ton, dorad*.

Natacha: OK, so I want to know more about the season... There are 12 months in year, which month brings in the most fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): During the hot time of the year

Natacha: Starting which month?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): The month of May

Natacha: That's when fishing is best?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, May until October

Natacha: Is the fishing good that entire time?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Sure, you can catch fish most of that time. But some days you don't catch anything at all.

Gana: I know that sometimes the current prevents people from fishing?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): The current poses a problem because it's hard to find the markers for fishing sites. You can waste an entire day searching for the exact spot where the platform is anchored. It's much easier with a GPS unit.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): I'll explain... It's difficult to navigate when the current is strong because the sites are deep underwater.

Participants: Yes, they sink to the bottom or move in the current.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): We start line fishing in March through May. In June and July you stop catching fish.

Gana: So line fishing has a season?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Yes, for the most part. You can still spot the occasional person line fishing during the off season, but the current becomes stronger. It can be difficult to spear fish as well. Personally, I think spear fishing is better in the current, but you waste a lot of time finding the location.

Gana: Ok, ok.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): It's much easier to find with a GPS, it's easier to find it. It leads you directly to the location where the fish are. It could be helpful to locate fishing traps as well. We use several tools to fish, such as traps, lines, nets...

Tim: When do you make the traps?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): As soon as the "node" is ready (Abriko, May be a reference to the bamboo maturing to make the traps?). At this time you might find enough material to make a 2 or 3 traps, but starting in May there is enough to make a lot of traps.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): March, April and May

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): All the way until the month October.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, that's the best time to make them.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Right now there's only a few people fishing with traps in the area, because the conditions are dangerous. The [current] can break the traps.

Natacha: Is there ever a shortage of fish?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Yes, there is often scarcity.

Gana: Ok, I understand. I want to ask you something else of each one of you. When do you fish? Is there are specific time of the day? Early in the morning? In the afternoon?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Well, you have two options. You can choose to fish in the morning when the fish are feeding at the FAD. Or you can go in the afternoon and you'll find different fish.

Gana: At the FAD?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, at the FAD. There are some fishermen who fish by line during the day and others that wait until the sun sets.

Gana: Does that mean you can fish anytime during the day or night?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, you can choose anytime.

Gana: There's no special time to fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):As long as the fish are biting.

Natacha: What about when you fish with a net? Is there a time to lay the net and another time to pull in the net?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):You have to spot the fish first. They appear on the surface when they are feeding on shoals of sardines. The surface gets whipped up and turns white. That's how you know. Then you lay you circle them with the net.

Natacha: How long do you need to wait before pulling in the net?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):You wait for the fish to struggle against the net. They get caught in the weave. Then you can pull the net into shore/on board.

##Ownership of Boats, Nets and Traps

Gana: Are there any fisherwomen in the community?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): That's a good question. You might find them in Jeremie or Port-au-Prince. I have seen them when I left the town. I left when I was 20 years old. After 5 years I returned.

Gana: So there are no women who fish in the area?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): No not here

Tim: There are no women that captain canoes?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): No, none of them own canoes.

Tim: What about nets?

Tim: Are there women around here who invest, in traps, in nets, in boats?

Public: Yes.

Tim: There are? You know women who have fishing boats?

Public: Yes.

Tim: How many?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): I have canoes, I have nets.

Tim: Oh, and you?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): I have a little canoe.

Tim: A little dugout?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): Yes, a little dugout canoe.

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): I had two skiffs once but lost them both.

Tim : Both were yours?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): Both were wrecked across the water.

Tim: And when they caught fish they had to give you a third, a share of the catch?

Public: Yes, you get a quarter of each fish.

Tim : And did you have any?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): I had a little dugout canoe but it got crushed when I tied it to a tree in a storm [laughter].

Tim: OK, when you say you had one, who went fishing in it?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): My husband fished with it.

Tim: And?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): In the little canoe, I had a little dugout canoe and my husband worked in it.

Tim: Do you have these things? Do you have a fishing canoe, nets?

26: I had a boat but not now. I don't have one any more.

Tim: You don't have any nets?

26: No, I don't.

Tim: And you, do you ? Number 5.

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Yes, I had a little canoe, yes.

Tim: You had a canoe?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Yes, I had one. My son uses it.

Tim: But it's yours?

20 Minutes

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Yes, it's mine.

Tim: And you, do you have one ? What's your number again?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): Number 20.

Tim: Do you have a boat?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): No.

Tim: Do you have... are you married?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): Well, I have nets.

Public: My husband has a net.

Tim: Your husband has nets. All of your husbands have nets?

Public: Her husband has nets. All of our husbands have nets.

Tim: Who does the net belong to?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):A local resident.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): It was that man you met earlier...

Tim: How many nets are in the area?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):6 or 7

Tim: Does each net have an assigned fishing area?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No

Tim: Can you cast the net any where you want?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No there are certain norms to follow. If another group has a claim to a spot you have to give them priority.

Tim: What about if they are repairing their net.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Then you can take their place. For example, if they are already pulling in their catch, then you have the right to cast your net at the location. It will take them a long time to pull in their net.

Tim: You said there were 6 or 7 nets in the area?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, there are several in operation

Tim: Do all of the nets have a single owner? Or do many people share the same net?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Some people have 2 nets, one for large fish and one for sardines.

3. Organization, Regulation, and Conflict

##State and NGOS

Natacha: But as fishermen, does the state ever help you?

Participants: (Laughter) Well...

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): That's a good question...

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): As far as I'm concerned, there is no support from the state.

#19 and #18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): If we waited for them, all the fishermen would die.

Tim: Do they not carry out any enforcement? To tell you that you can't fish at this time or in that place?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Oh no, they don't intervene like that.

Tim: Is there any area where you are not permitted to fish?

Gana: An area that is off-limits?

Participants: No, there are no such restrictions...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): They provide neither enforcement nor support!

Participants: Between us fishermen there are certain restrictions. Like in Wozo...

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): No, that's not what they are asking.

Gana: What restrictions? Is it a state law?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): No, these are two different things. There is enforcement of the law and then there is conflict between fishermen. The state might forbid you from fishing in a certain area. If you fish there then you break the law... But if another fisherman tells you not to fish in the area around his home then that's a conflict.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Wait, there is something you said that caught my attention as a fisherman.

Natacha: Yes?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): You asked about the Haitian government and that concerns me a lot. First, there is very little support from the government for fishermen, particularly out here in the Grand Anse department.

Gana: There is no support?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): And second, they just don't think about us. If it wasn't for NGOs, we would have all perished after hurricane Matthew.

20 Minit

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): That's why we take out hat off to Food for the Poor for everything they've done for us.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): And we can't forget EPER...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): EPER helped us a lot too.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): They gave us FAD platforms

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): (Agreement)

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): They gave us FADs, that gave us a motor, that provided the means for us to pick up the pieces and continue living. Do you know what I mean? That's why I find it hard to respond to your question about the support of the government. Because they haven't provided any support. We wouldn't be able to continue as fishermen if it wasn't for those two small NGOs.

##Eels

Tim: OK. Do you still fish for eel?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes

Gana: Every fishermen fishes for eel?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): No, not every fisherman

Tim: But at the moment there aren't any?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): No, none at all.

Tim: What would you do if you found some?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): When you catch eel you weigh it. Then you can sell it for a little money.

Tim: Who buys eel?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Vendors

Tim: Are there special vendors that deal in eel?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Let me explain, line fishing for eel is an activity that we do not do at the FAD. You have to be very patient to catch eels, but it's worth it because of the price it fetches. Eels are active at night. If you want to catch them you have to wake up early. I would wake up at 2am in the morning to catch 3,4,5,6 – 10 grams. Now if I caught 10 “gram” eels in a night I could make 700 *dola* (3,500 HTG), but it's not easy...

Gana: 700 Haitian *dola*?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes.

Gana: Ok

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Not everyone knows how to fish for eel. The majority of youth today no longer know the secrets of the sea (“afè lamè”). Many of them have left the countryside and don't know how to make a living fishing.

Tim: Where do you find eels? Are they in deep water?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): They are closer to shore. They live in tunnels [in the reef].

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): At least half a meter down.

Tim: A half-meter? Is that where you generally find them?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Exactly.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): We were speaking about who buys...

Gana: Who buys the eels you catch?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Oh, people like me

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Some come from Port-au-Prince, but most are local entrepreneurs.

Tim: They come once there's a sufficient quantity to sell?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): As soon as the fishermen come back from sea. They weigh the catch and sell it.

Tim: Is eel the only thing that they come to buy? They don't buy fish?

Participants: No, only eel.

Tim: Only eel? Does anyone buy lobster?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Rarely. It happened more in the past.

Natacha: Does that mean there is a special net to catch eels?

Participants: You can catch it with a mosquito net.

Tim: Does that work the same way as a seine net?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, but the weave is much smaller

Tim: How many people are required [to fish with a seine net]?

Participants: 2 people

Gana: Do eels impact fishing? Ok, but does catching eels have and impact on other fishing around here?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There was someone working here named Bernard Chevrett. He explained that eels chase the fish out of their hiding places in the reef and he warned against catching too many eels...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): But we're not sure if it's true or not. There are fish that eat sardines and larger fish that eat bonito. Everything is connected in a food chain.

Gana: There's a season/order?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, the big fish eat the small fish

Gana: During the season for eels, do you still find other fish? Or are there fewer fish during that period?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): It varies, but you can still find other fish

Gana: So they coexist?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Right. What makes me say that is that there used to be more fish, but since the departure of eels the fish population has declined.

Gana: Now there are are less eels and fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes. I don't know if it's because they caught too many, but that's how it appears...

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Sometimes when fishing at the FAD, we see bonito. It appears they are hunting eels.

Tim: Do you see eels at the FAD?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): No, the bonito come to the FAD to eat the other fish that gather there.

Gana: Do you think the eels attract/chase the other fish there?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Yes

Gana: So if the eels disappear, then there will be less fish?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes

Tim: Are you certain?

Participants: No, we don't know...

Tim: You're saying it's possible, but you don't know for sure?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Since we set up the FAD there have been a lot of Bonito that have come to feed. It has created a plankton (ecosystem?) that attracts fish. The eels frequent the area as well.

Natacha: Were there more eels when you were young?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, but people didn't think to catch them

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): They didn't catch them because there was no market to sell them. Sometimes the current would strand them on the shore and you could collect them.

Tim: Do you find them in fresh water too?

Participants: Yes, they enter fresh water

Gana: But now there is a market for eels. What is more profitable, fishing or catching eels?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Eels are more profitable at the moment.

Gana: Eels are more profitable?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): For the people that can catch them.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Sometimes when you go out at night, you encounter lots of other people, one on top of each other, all trying to catch eels.

Gana: Yes, I've heard that before.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): There are people that come down from the river.

Tim: Are these outsiders?

Participants: Yes

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): There are many people from the countryside that have taken it up

Gana: Including people from the 4th communal section...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, they make up the majority of the [eel fishermen]

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): But they come from all over. Some 10% are from city/Jeremy.

Tim: Are they foreigners?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Even 10% is too many!

Tim: 10%?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): The proportion of people who come from the city.

Tim: When we conduct focus groups with people in the countryside, they always complain that they can't find any workers because everyone has gone to fish for eels! (Laughter).

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): It wouldn't be a problem if they didn't bother us...

Tim: They bother you?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes, like when we are sleeping.

Tim: They make noise?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): They make noise. They make trouble.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): They're poorly raised.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): They cuss and fight amongst themselves. Many things.

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): It started after the hurricane, people from the countryside started to come here to fish for eels.

Tim: They had to make a living.

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): They had no other choice, they were left with nothing. People from along the river and coast came to fish for eels after Matthew. They heard that you could make 40 or 50 *dola* (200-250 HTG) in a day. Initially they payed 4 HTG per gram, but now it's more than 70 *dola* (350 HTG).

Tim: What!? Per gram?

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): Per gram

Tim: Wow!

Gana : 70 Haitian *dola*?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes

##Fishing Associations

Tim: You are 18. 15, how did you get started with fish?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): Yes, it's like the lady said. Our husbands fished, and they would bring back fish for us to sell in the market. And when they formed the organization they asked for 40 merchants. With those 40 merchants, we trained 40 merchants and 60 fishermen in the association. All of the 40 merchants got together. The fishermen went, they got boats, they got motors. They left and they brought a DCP for them. When they got all those things, life started to change for us, because there were more fish on the market for us to sell.

Tim: Are there people who aren't in the association ? I mean, merchants from around here who are not in the association?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): Yes, there are merchants who aren't involved, because the association can't take just anybody.

Tim: They can't take everybody, every kind of person?

Natacha: But all of you here are in the association?

Public: Yes.

Tim: There's a limit...

[I can answer you because those people aren't in the association [laughter]]

Tim: OK, and you, 16?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Me, 16, I'm in the association. That means, I might be a merchant, a merchant transports fish to me in Jeremie, and I sell it. Sometimes I make dried fish and I take it to sell in Port-au-Prince. Meaning, it's in Jeremie that I sell all my fish, and do everything having to do with fish.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Well, by the time I get up my husband is already fishing.

Tim: 17?

Public: Number 17.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Then he brings me fish. I sell the fish. Then I joined the association, and I sell fish. I buy, I dry it, and I go to Jeremie to sell. I buy it fresh and I sell in the market here, or in the market in Kalen. I'm everywhere. When there are no fish I buy coconuts, I buy plantains. I sell in Jeremie. Everything.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): When he talks about paying for the FAD...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There is a fee for using the FAD.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): There are FADs jointly owned by associations and there are privately owned FADs. You have to pay to use them in addition to the cost of gas.

Tim: You pay after you catch the fish?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, after you catch them.

Tim: Do they take a cut?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, they take a percentage. If you catch 5,000 HTG worth, then you have to pay 750 HTG to the owner of the private FAD.

Tim: Hmm...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Now, you still have to purchase 6 gallons of petrol, plus oil for the motor, and you have to pay your crew...

Gana: And what's left is profit?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): That just how it is.

Tim: The fiberglass boats are for association?

Participants: Yes, they are the association's.

Tim: Does anyone have a private boat?

Participants: Yes

Gana: I want to return to something you said earlier about fishermen taking turns net fishing the same site... Are there any other informal rules between fishermen? Like controlling access to fishing at FADs? Or line fishing? Or fishing by lights?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There are rules that govern FADs. Some are privately owned and you have to pay to access them. Others you have to pay an association for access. But some people cheat. They'll fish at night to avoid paying the fee.

Gana: Ou pedi nèt

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Some of the payment systems were put in place by NGOs. They encourage people to contribute towards maintaining the FAD and covering other costs for the associations. But you don't have 100% confidence that the money is being used for that purpose...

##Conservation Efforts

Tim: In your lifetime, do you feel like the number of fish have declined since you were a child?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Definitely, there is a less than when I was a child.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): There are less fish in the sea.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): I used to spearfish.

Tim: You dove?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): I dove down in the water to spearfish

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): I selected them by size

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): I speared the largest fish

Tim: You chose what you wanted?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Yes, but now that's not possible

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Sometimes you encounter 4, 5 or 6 lobsters, all walking in a line

Tim: (Laughter) I've heard of that.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): You don't see that any more. The country has fallen on hard times.

##Regulation

Tim: Do people catch fish from the shore as well?

Participants: Sure

Tim: Do you have any issue with that?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): No, it's not a problem

Tim: Even if they catch all the small fish?

Participants: (Laughter) Yes

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Haiti is not an organized country that has laws to manage fisheries. People keep the small fish they catch, even though they should really release them so the fish can mature. But when faced with hard times, people are forced to keep what they can catch. A more organized country wouldn't allow that.

Tim: In the U.S. they would put you in prison for catching lobsters that are too small. It's a problem for sure.

Gana: I want to return to something you said earlier about fishermen taking turns net fishing the same site... Are there any other informal rules between fishermen? Like controlling access to fishing at FADs? Or line fishing? Or fishing by lights?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): There are rules that govern FADs. Some are privately owned and you have to pay to access them. Others you have to pay an association for access. But some people cheat. They'll fish at night to avoid paying the fee.

Gana: Ou pedi nèt

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Some of the payment systems were put in place by NGOs. They encourage people to contribute towards maintaining the FAD and covering other costs for the associations. But you don't have 100% confidence that the money is being used for that purpose...

##Conflict over Fishing Grounds

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): No, these are two different things. There is enforcement of the law and then there is conflict between fishermen. The state might forbid you from fishing in a certain area. If you fish there then you break the law... But if another fisherman tells you not to fish in the area around his home then that's a conflict.

Tim: And the people of Wozo won't allow you to fish there?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): No, they don't allow us to fish the reefs in the area. Even though they are part of the same Food for the Poor project. If you try to fish the area they'll chase you away and hurl insults.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): They keep it for themselves.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): They'll do anything to chase you from the area. We don't do that here. If someone from another area comes to visit, we give them food to eat and a place to sleep. A fisherman will take them into their home, because we know that they are a fellow fisherman.

That's something that I proposed to Food for the Poor several times. I asked them to form a federation at the department or even national level for fishermen. Something to encourage collaboration, because many fishermen believe they are in competition with each other. For example, there is a fisherman from Bonbon that tried to fish at FAD platforms near Jeremie. When

the fishermen in that area caught him fishing at their platforms they said many terrible things to him, because he was an outsider.

The fisherman [from Bonbon] knew the rules, but he fished there anyways. He told me that he had to make money. He wasn't carrying a machete or a pick to take from another's land, he just had a line in his hand to fish the ocean.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): It's just a tool to make a living...

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Right, he said I have fishing line in my hand the same as you. How can you call me an outsider? But you know the FAD is something that is fragile. A boat can cut the line and lose it. You have to be blind to not see that. He comes to fish in other communities, but he doesn't contribute to maintaining their platforms.

##Danger and Rescue

Natacha: Do any accidents happen when you're out on the water fishing?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):All the time.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Especially when the sea is strong. It's only natural. The boat can flip over in the waves, people fall overboard, are struck by the propeller, or drown. Sometimes it's case of negligence, sometimes it's just [bad luck]

Natacha: But can't you see from land if the sea is too strong to go out to fish?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Sure, sometimes the sea looks rough, but we still have to catch fish. If we alwaysx stayed in, there would be no one to fish (laughter).

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): The sea is stronger than us. Stronger than a motor boat. There are larger boats made specifically for rough conditions, but even those boats have their limits.

Natacha: Do you have any type of insurance incase something happens to you at sea?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):(Laughter) No no no

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): No the state will not help you

Gana: There's no service like that?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Where they insure you?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Never

Natacha: Not even amongst members of the association? Where members help eachother in case of an accident?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): No, the association doesn't have an insurance system

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):We don't have access to insurance at all.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, but we try to look out for each other. There's a rule that you must take a cell phone when you go out to sea. That way if you run into

trouble you can call the association for help. They'll buy gas and send a captain to rescue you in his boat.

##Hurricane Matthew

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): It's hasn't been easy. We lost our livestock, our gardens were destroyed, our canoes wrecked, our nets were lost, everything was ruined. We hardly have any resources left in the months after the hurricane. Then nearly one year later, Food for the Poor donated 4 motors. It provided relief, but we still are seeking a long-term solution. People struggle to pay school fees or repair their homes.

4. Marketing

##Why sell Fish

Gana: OK, so are all of your husbands fishermen?

Public: Yes, my husband's a fisherman.

Gana: So that means all your husbands fish?

Public: Yes.

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Number 18. We got into selling fish because we had husbands who fished in dugout canoes. Afterwards they would bring us the fish for us to sell. ...

Tim: You are 18. 15, how did you get started with fish?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Yes, it's like the lady said. Our husbands fished, and they would bring back fish for us to sell in the market. And when they formed the organization they asked for 40 merchants. With those 40 merchants, we trained 40 merchants and 60 fishermen in the association. All of the 40 merchants got together. The fishermen went, they got boats, they got motors. They left and they brought a DCP for them. When they got all those things, life started to change for us, because there were more fish on the market for us to sell.

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Some people might sell fish that their husband brought them.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Well, by the time I get up my husband is already fishing.

Tim: 17?

Public: Number 17.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Then he brings me fish. I sell the fish....

Gana: OK, so are all of your husbands fishermen?

Public: Yes, my husband's a fisherman.

Gana: So that means all your husbands fish?

Public: Yes.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): But we don't just buy from our husbands. We buy from other people.

Tim: You buy from other people, too?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): You sell fish because there are times when you don't have 50 *gouds* to buy anything. You sell so you can come up with something to buy a little something for the children to eat.

Tim: But is fish the best market, is it the best business?

Public: Yes, when there's fish to be had, compared to other types of commerce.

Gana: What advantage does it have over the other types of commerce you do?

Public: It's better than all other types of commerce because fish sells the best. It's a hot item. Everybody needs it, so it sells better than anything else.

Tim: Because it sells... ?

Public: It's better than all other types of commerce because everybody needs it. They have to eat fish. If you have it, people can't just go without food. Sometimes you buy a bag of rice you go a month without selling it. As soon as you put down your fish you sell it within a week.

Tim: The same day?

Public: Yes, you'll sell enough to make 50 *gouds*. In one day, or 3 or 4, you might sell everything you have.

##Buying and Selling

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): But we don't just buy from our husbands. We buy from other people.

Tim: You buy from other people, too?

Public (Women focus group): Yes.

Tim: Who else do you buy from?

Public (Women focus group): Other fishermen who've been out fishing. People in the organization sometimes bring fish.

Tim: Even if you don't know them, like if it's not your child, your brother, they'll still sell to you, people other than your husband might sell with you?

Public (Women focus group): Yes, Yes..

Tim: They might sell with you because, if they don't know you at all, they still might sell to you?

Public (Women focus group): Yes, you have to have the food in your hands, you have to have cash, you have to have money.

Tim: You have to have cash?

Public (Women focus group): Yes, you have to have cash on hand to buy because they won't sell on credit. If you don't have cash they won't sell to you on credit.

Tim: Could a woman come from somewhere else and buy here without any problems, a woman from the countryside, for example?

Public (Women focus group): Yes, they come here to buy from us, when we buy in bulk, lots of fish, they are the ones who come help, they buy from us to go resell in other markets.

Gana: But there's something I'd like to know. You say it's around here... where do you find the most fish? Is it around here or is there someplace else you go to buy fish?

Public (Women focus group): We only buy around here. We stay here and here alone. The boats might come from somewhere else. They come here to sell, and we buy.

Gana: But you don't go other places to buy fish from somewhere else?

Public (Women focus group): No. [Tim clears his throat.]

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): The boats sometimes go to Anse d'Hainault, too. They bring back fish to sell to us.

Tim: Now, when you have money you buy at the lowest price?

Public (Women focus group): Yes, when you have cash you get a better price. When they won't give me a price I like I turn them down.

Tim: But now, you don't have money so you take what you can get?

Public (Women focus group): When you don't have money you're stuck as you are.

Tim: You get fish from your husband?

Public (Women focus group): Yes.

Tim: But when you have money?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): You buy from anybody you want.

Tim: OK, but when you have no money you can't buy from everybody?

Public (Women focus group): You can't do anything but can't do anything at all but look. You just watch other people do business [Tim laughs] and wring your hands. You can't say anything, you're mute. You just watch, you can't say a word.

Natacha: What advantage do you get from selling fish? What profit do you get out of it?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): You sell fish because there are times when you don't have 50 *gouds* to buy anything. You sell so you can come up with something to buy a little something for the children to eat.

Tim: But is fish the best market, is it the best business?

Public (Women focus group): Yes, when there's fish to be had, compared to other types of commerce.

Gana: What advantage does it have over the other types of commerce you do?

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Tim: Because it sells... ?

Public (Women focus group): It's better than all other types of commerce because everybody needs it. They have to eat fish. If you have it, people can't just go without food. Sometimes you buy a bag of rice you go a month without selling it. As soon as you put down your fish you sell it within a week.

Tim: The same day?

Public (Women focus group): Yes, you'll sell enough to make 50 *gouds*. In one day, or 3 or 4, you might sell everything you have.

Tim: OK, let me ask a question. 18, when you arrive in Port-au-Prince with a bag of dried fish, do you sell it all the same day, or do you have to stay?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes, other market women come and buy it from me.

Tim: They buy it from you right there?

Public (Women focus group): Yes, they go and sell somewhere else in Port-au-Prince. They go sell in the Jeremie market, there are merchants who specialize in doing just that. They are there to buy from you when you get to Port-au-Prince.

Tim: As soon as you arrive you sell the fish?

Public (Women focus group): Yes, you sell it and then you get down.

Tim: You don't give credit?

Public (Women focus group): No, sometimes when there aren't a lot of vendors they might buy on credit, and the food too. Yes, they send you the money. There are merchants for that, when you return and haven't sold everything if you know the person.

Tim: Gana.

Natacha: Ok, I have another question. When you catch fish do vendors buy they directly from you? Or do you have to go to the vendors to sell the fish?

Participants: No, there are vendors that come buy fish by the river.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):But it's not a perfect system. Sometimes the vendors aren't serious about purchasing fish and they go to waste. We work hard under the sun to catch them but find no market for them. For example, today I caught a bunch of fish but there was no where to sell them. There are not enough people [in the immediate community] to eat all of the fish while they are fresh. So we lose money on the fuel for our boats...and you can't pay for your children to go to school.

Tim: Because you can't sell everything?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, there is no where to sell them...

Tim: Even big fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, all kinds of fish

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): And we have no way to preserve them...

Tim: But the women could dry them?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): They still go to waste.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):When they are dried the price goes down a lot. If only there was a place to conserve them then we could transport them to Port-au-Prince to sell.

Tim: Because it's better to sell fresh fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, there's more profit to be made from fresh fish – for fishermen and vendors.

Tim: Who sells the fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Merchants. They purchase them and resell them. Sometimes on credit.

Tim: And they go to Port-au-Prince?

Participants: No they sell them in the local market

Tim: Do people from Jeremie come here to purchase fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, just people from the surrounding districts.

Gana: That means you sell the fish you catch to the vendors that resell them in the community?

Participants: Yes

Gana: Do residents ever buy fish directly from you?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Sure, sometimes

Gana: Does anyone from other areas come to buy fish here?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Listen, it's hard to make a profit selling fish. For example, you might catch 5,000 HTG worth of fish, but some of it spoils in transit. So then you're left with some 3,000 HTG of fish. But you have to pay 2,000 HTG for petrol for transport, you have to pay the association and you have to contribute to the FAD. So even after working through the sun and the rain all day, you can't even make 5 HTG to feed your family or children.

Tim: Ok, let's clarify. When we talk about "machann," we refer to the women, right?

Participants: Sure, it could be any vendor. My wife, your wife, etc.

Tim: Who do you sell the most fish to?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):My wife

Tim: Your wife?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, my wife. I sell her fish and she resells them with other vendors that don't have husbands who fish.

Tim: She provides a little credit to the other vendors?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Exactly

Tim: In general, do you first sell to your own wife?

Participants: Yes

Tim: Or perhaps, you sell to/through your daughter? Or mother?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Yes, you sell to your kin first. Even your cousin.

Gana: Does that mean that the wife of every fishermen here sells fish?

#16/#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): The majority

##Processing and Storage

Tim: Is it dried, or...?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Dried fish in Holy Week. [Tim: OK, in Holy Week you sell fish in Port-au-Prince.].

Tim: Even dried?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): No, fresh. I sell “green” fish, I sell dried, too.

Tim: OK.

Gana: You mean fresh fish?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Yes, fresh fish. That means that whatever I have that I don’t sell right away, we put it on ice.

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): That is what I would say. Yes, sometimes the boats come in after dark.

Tim: You put the fish on ice, in a cooler?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Yes, in a cooler. Then we crush ice and put it on top of the fish, and put it in the cooler.

#15 : Yes, we don’t have anything to process it. Sometimes we salt it.

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): When necessary we buy ice and crush it. It’ll keep.

Gana: Between salt fish and fresh fish, which is better to sell?

Public: Fresh fish. There are people who don’t eat salted fish, so it’s not as good for you. When it’s salted it can take time to sell. It sells better if it’s fresh.

Tim: Fresh sells better?

Public: Yes, it sells faster.

Natacha: When you have fish like that how do you preserve them?

Public: We salt them or dry them in the sun.

Tim: Do you have freezers?

Public: No, we don’t. We put them in the sun, but then they are hard to sell. When they are dried or salted people aren’t as likely to want them. People resist. When your fish are salted you might be stuck with some of them. You lose money, too. But if we had a place where we could put them right away into a freezer, it would be good for us. We could sell them like fresh fish, but salting them isn’t good for us.

Tim: Can you use any fish, no matter how big?

Public: Yes.

Tim: You can salt them all, too?

Public : Yes

Tim: All can be salted?

Public: Yes

Tim: When sales are good, OK, is there anything else we should talk about, that we need to know?

Public: Yes, we'd always have fresh fish. Instead of people coming and only finding some salt fish, having to eat salted fish, if we had a place to keep them there would always be fresh fish.

Tim: But is there anything, is there a lack of salt, is there a lack of limes?

Public: No.

25 Minutes

Tim: Is there any other product that could help you sell fish?

Public: The only thing that would help is a freezer, a walk in freezer so we could put them in coolers.

Tim: A freezer?

Public: We need a cold room, a freezer, so we could preserve them. So we could use coolers.

Tim: Do you need more coolers?

Public: Yes, we don't have any. Market women don't have them at all.

Tim: When you need them where do you go?

Public: We borrow them from people who have them, if they'll lend them to us.

Tim: If you have money and want to buy one, you get it in Jeremie?

Public: Yes, if you have money you can buy one in Jeremie, anywhere. Some are expensive, depending on the size. There are 500s, there are expensive coolers, 1500, 2000. 500 is a little one to carry ice. The big 2000 dollar (10000 *gouds*) is to put a ballyhoo in.

Tim: Ballyhoo.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): We don't have enough equipment, either.

Tim: Fishing equipment?

Public: We don't have enough equipment. When we sell fish it's with our bare hands. Our little knives are too weak. We don't have enough basins. When we buy fish we carry them on our heads. Water slops over and gets us all wet [laughter]. We suffer a lot, as women do. If I'm carrying a basin of fish and have to go up the mountain, the basin overflows on my head, fish spill out on my head. I have to return home. When that happens you don't make any money. You might go to the market crying, burning in the sun. And you wind up having to go home with nothing, discouraged. You can't buy anything.

Tim: So you have a place but it's not sufficient?

Participants: No, we don't have cold storage

Tim: Do you have a refrigerator?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): A refrigerator doesn't do the job.

Tim: Because it doesn't hold enough fish?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): The refrigerator is out of order.

Tim: Broken?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Yes

Tim: So you're saying that a cold room is important to you?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Very important

##Going to Market

Tim: But you say you sometimes go to Port-au-Prince?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes.

Tim: To sell fish?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes.

Tim: You, yourself?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes, when there's a lot of fish.

Tim: Is it dried, or...?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Dried fish in Holy Week. [Tim: OK, in Holy Week you sell fish in Port-au-Prince.].

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): When we don't have any ice to put on it we salt it. Then we look for a market, Kalen. There is another market where we can sell it.

Tim: Market Ka...

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Kalen.

Tim: What's it called?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Kalen.

Tim: Kalèn.

Gana: Kalen, where is it?

Tim: Do you go by bus or on foot?

Public: Abricot.

Public: On foot, or motorcycle.

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): We go on foot.

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Sometimes we take a motorcycle.

Tim: How long does it take to get there on foot?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): It doesn't take long.

[It takes an hour]

Tim: One hour?

Gana: But it's still in the section of Abricot?

Public: Yes, Abricot.

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): That's where we go to market on Mondays.

[Still the second section.]

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): Monday's market, we do it here.

Tim: OK, and you?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Then he brings me fish. I sell the fish. ... I buy, I dry it, and I go to Jeremie to sell. I buy it fresh and I sell in the market here, or in the market in Kalen. I'm everywhere. When there are no fish I buy coconuts, I buy plantains. I sell in Jeremie. Everything.

Tim: After fish, what's the most important thing you sell around here?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): I sell rice by the bag...

Public: Rice, yes. Maggie, little things like that. You might buy plantains in bulk and sell retail.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): As for me, I'm a traveling merchant (madanm sara). I buy coconuts, plantains, and I go sell in Port-au-Prince.

Gana: OK, you do other things, but where I see there are a lot of you who go to Jeremie or someplace else to sell. Where, in what zone, do you sell the most?

Public: In the city, in the Jeremie market, in the fish market.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): I go to the Jeremie wharf and when I don't sell everything on the wharf I go into the market and sell there.

Gana: What number, what number are you?

Tim: 16.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Number 17.

Tim: 17.

Gana: OK, that means, ma'am, that you sell most on the wharf?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Yes, I mostly sell on the wharf.

Gana: And you, ma'am, 16 ?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): I sell inside the marketplace.

Gana: You mean inside the fish market itself?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Inside the market.

Gana: So most of you here sell in Jeremie?

Public: Yes.

Tim: You do the best in Jeremie.

Public: We sell the most in Jeremie. That's the city, because I might have one sack of fish or two, I always sell everything I have in Jeremie. Here if you have one bag you can't sell all of it. Only when fish are scarce can you sell all you have here. If there are lots of fish you won't sell everything and you'll have to salt what you have left.

##Cooperative Marketing

Tim: Do you ever pool what you have to go sell, if you need to have a lot to sell?

Public: Yes, we do.

Tim: You work together?

Public: Three market women, or 4, might go together.

Tim: 3, 4?

Public: Yes.

Gana: Do you go together, or just pay?

Public: No, each one has her own business.

##Dependency on selling fish

#31 (Abriko, Female, age 50, 7 Children, Fish Trader, farmer, 31, No education): Me, what I sell, sometimes I'll buy fish and it will burn in the sun and it's useless. I don't make one *goud*. And when I don't make one *goud*, some people swear at me, call me all kinds of bad things, and I that's how I live. I hold on, I hold on, I hold on just to live.

Tim: OK, but you don't have another thing to sell that's reliable?

#31 (Abriko, Female, age 50, 7 Children, Fish Trader, farmer, 31, No education): No.

Tim: OK, and you, 19?

#19 (Abriko, Female, age 31, 2 Children, Fish Trader, No education): Only fish.

Natacha: In what period is there a lot of fish?

Public: Like right now, in this period, there's none. If you find fish now you'll make money from it. In this month (January) it's cold so there's not much fish. If fish come in you'll make a nice little profit. You'll find in March, in Lent, you won't get anything.

Tim: OK, let's finish with 16, you have something else stable to sell other than... ?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader & Farmer, 7th Grade): I'm stable when I sell fresh fish. When I can't get it I sell dried fish.

Tim: That's your business...

Gana: That means only fish?

Public: Yes, only fish.

##Other trade

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Number 18. ... We all still sell fish, but when the fishing season is over we take up our other activities. We sell plantains, we buy bananas, we make rice, we buy bulk rice and we resell it to make a little money to feed our children. When the seas are rough and we can't find anything, we all buy something else. We buy chickens, we do anything we can to have something to sell.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Then he brings me fish. I sell the fish. ... I buy, I dry it, and I go to Jeremie to sell. I buy it fresh and I sell in the market here, or in the market in Kalen. I'm everywhere. When there are no fish I buy coconuts, I buy plantains. I sell in Jeremie. Everything.

Tim: After fish, what's the most important thing you sell around here?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): I sell rice by the bag...

Public: Rice, yes. Maggie, little things like that. You might buy plantains in bulk and sell retail.

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): As for me, I'm a traveling merchant (madanm sara). I buy coconuts, plantains, and I go sell in Port-au-Prince.

Public: The most profitable thing around here is fish, so, if there are no fish...

Gana: But what other business do you have that's stable, so that you know, even if you're in the market selling fish you know you have other business?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): I sell rice. I sell sugar.

Gana: Number 5.

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): I sell rice, sugar, cooking oil. Yes, that's a stable business for me.

Tim: You always sell it?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Yes.

Tim: You sell it behind your house, too?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Yes, I sell from my house, and in the market. At night there's no fish. That's my real business.

Tim: OK.

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): When there's no fish that's where I make my 50 *gouds*.

Tim: That's what you get from it every day?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Yes, every day.

Tim: And you, what's your number again?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): 21.

Tim: You have another business?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): Yes, I sell gas.

Tim: You sell gas?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): Yes, and rice.

Tim: You always sell gas? If I go to your house now and I need gas, you'll have some?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): Yes, I have some at home. If you go you'll find some.

Tim: Rice?

#21 (Abriko, Female, age 32, 2 Children, Fish Trader, farmer, 6th Grade): [laughter, Yes, I have it.]

Tim: And you?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): Me, I sell raw rum.

Tim: What number?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): Number 20.

Tim: Number 20 you buy raw rum (klerin)?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): And milk, a little rum. [Another person coughs] Those times, we buy in Jeremie and come sell here.

Tim: You buy by the gallon?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): Yes.

#36: Me, I go buy a drum, a little drum of oil. I buy in bulk and I come sell in smaller quantities. I sell retail.

Tim: OK, and you, 18?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Me, fish. When I can't get fish I go buy chickens to sell. I buy carrots. I buy cabbage. When I don't have anything else and I can't find fish, I cook food to sell.

Tim: But you say you go buy, that means you go to buy... ?

Public: She goes to Jeremie.

Tim: And you come back with it.

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes.

Tim: But then sometimes there's nothing for you to take?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes, when I go I don't take anything. I just pay the motorcycle fare and go buy so I have something to come back and sell.

Tim: OK, but when there's fish, when they go to buy they take fish to sell in Jeremie or Port-au-Prince, you always buy something else and bring it back?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes, when I'm coming back from Jeremie or Port-au-Prince I buy rice, I buy cabbage, I buy carrots, I buy anything a person can sell so that I can sell it and make more money from the money I've made, if I've made anything.

Tim: OK, 15.

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Yes, I can't just stand there with my arms crossed, even if it's just a bag of charcoal I have to buy something to sell, because when there's no fish I have to have some way to make money so I can give the children a little bread in the morning.

Tim: You buy charcoal and go off to sell it?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): No, I put it in front of the door. I might sell it for 10 *gouds*, 15 *gouds*, or 25 *gouds* the can.

Tim: OK

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): I put it there because when you get up in the mornings the children are your responsibility. You have to have something. You have to have something to get you through the day.

Tim: OK. 17?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Ah, me, when I have no fish I go to the market and I buy a bunch of plantains, a bunch of bananas, I separate them into smaller quantities, and sell a hand for 50 *gouds* or 100 *gouds*. I sell so I'll have something to give the children.

Gana: If you had it to do over again, and find something else to sell, what would it be?

Tim: Number 5, what would you do?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): The thing that sells best is food.

Public: Rice, everything. Sandals, clothes, bras. No women are using skin creams, perfume, used clothing, all those things.

Gana: If you could make a change, would you change from selling fish?

Public: Yes, we'd change.

Gana: So, you don't like the fish business?

Public : We like it but sometimes we don't have any to sell.

#8: I sometimes sell food down there, when the glass eels are running. I go sell food there. I sell food to the people hunting glass eels.

Tim: You sell food?

#8: Yes, cooked food, where there are glass eels. A little thing...

Tim: Ah, with other people who hold on... ?

#8: Other people have there own thing they do there.

Gana: And you don't have anything you do?

Public: She says she does. Not me... She says she sells klerin (raw rum). Me, sometimes I cut trees and make charcoal to sell when I can't get any fish.

Gana: So, if I'm understanding right, that means every one of you has something you do when you can't get any fish?

Public: Yes

30 Minit

Gana: Because now there were people who said that...

Public: But not with our own money, with borrowed money. I might borrow 500 dollars (2500 *gouds*) and it changes hands, it passes through our hands...

##Selling Fish vs. Other Trade

Gana: Listen, I was asking between selling fish and selling something else, what's better than fish?

Public: We'll always sell fish. We wouldn't change that even if there were another type of commerce. We would always hold onto fish even if the fishing boats came back empty, it won't go away. Even if it's just throwing out a net to catch a can of sardines.

Gana: No, you can't all speak at once. Let's do it by number.

Tim: 15, finish what you were saying?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Yes. I said, the women say they're ready to sell something else, but I'm saying even if I had some other type of commerce to do I'd never drop selling fish.

Public: I'd never leave it because I know what it has done for me and my five children. I know where to go to sell. Even if I had some other business to do, you know you can make 50 *gouds* with this, so the children won't go hungry. Selling fish is no reason not to also do some other business. Look, when there's no fish, I've gone five months without fish, if we had nothing to do how would we live, how would we feed our children? How would we pay for our houses, or school?

Tim: You mean you like fish but don't always have them?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): We don't always have fish.

Tim: And 18, what do you have to say?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Well, as the ladies say, there aren't always fish. Sometimes you go out and you find a little fish. Other people have fish but you don't. You don't have anything to sell. If you don't have some other business, something else to sell, you're stuck. You have to have some other commerce to go into.

Tim: If they could always get fish is that the only thing they would sell?

Public: No, I might only be able to buy one bag, and a bag of rice. Even if it's just every once in a while, you have to have something else to sell. If you're comfortable with charcoal, you put it in front of your door and sell that.

Gana: That means that people who, like you No. 18 who sell fish only, No. 19, No. 8, fish is the only thing you sell. You don't do any other type of commerce?

##Selling to Restaurants and Formal Markets

Natacha: So that is why you all might stay here to sell your fish?

Public: Yes.

Gana: Do you have restaurant clients? Do you know people who run restaurants, where you know when your husband arrives with fish you can sell to them?

Public: No, when you have fish they won't buy it all. Restaurants are more likely to just want snapper.

Tim: Restaurants?

Public: Yes, red snapper.

Tim: They don't want white fish?

Public: There are restaurants that take them, Taza. They take snapper, dorad, they also take things like conch. There are other people who say they are hard. Some foreigners come eat them. Snapper are the best, though.

Tim: They don't want snapper?

Public: They like snapper. We sell them to other market women.

Public: Yes .

Gana: Does anybody go take orders in, say, Port-au-Prince? Go looking for clients?

Public: No.

Tim: The association you were talking about, does it talk about the possibility of clients in Port-au-Prince?

Public: No.

Gana: OK, I have another question. Do you have any way to contract with clients, so that they pay you for the fish in advance? Like if you know that you are going to catch large fish?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No we haven't done that before.

Gana: Are there no large clients like that?

Tim: Clients that transport the fish to Port-au-Prince to sell at the central markets?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No, not that we know...

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): The only example that I am familiar with, is when vendors transport fish to sell in Port-au-Prince during the week of Easter. But it doesn't happen all the time.

Tim: What about selling the fish in Jeremie?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):It's too much for Jeremie.

Tim: Too far?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, there's too many fish on the local market. Many go to waste.

##Price and Profits

Tim: OK, so let me say, if I 100 dollars (500 *gouds*) worth and I say I'm going to sell here, I won't be able to make any profit. If you buy 100 dollars worth of fish can you make any money?

Public: Yes.

Tim: If you buy 100 dollars worth to sell, how much profit can you make?

Public: You can make 100 *gouds*, or 150 *gouds*. Maybe just 50 *gouds*, depending on the market. You might make nothing at all.

Tim: The same amount of fish, if you take it to sell in Jeremie, how much will you make?

Public: You won't make anything on 100 dollars. There's nothing in it for you. You have to factor in the transport expenses, 1000 *gouds* roundtrip. You have to have a place to stay overnight. I spend two days, sometimes three.

Tim: To sell everything?

Public: Yes, 500 *gouds*. You might leave Sunday. You pay for the bag of fish separately. You pay 500 *gouds*. You have to have enough to pay expenses, and still have something as profit.

Tim: Ok, so imagine we are fishing in my [private] boat. We catch fish. and divide them between us. How much do I get to keep as the owner?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):As the owner of the boat and motor, you keep one third of the profit. The rest is divided between the crew. So for example if we make 3,000 HTG, you keep 1,000 HTG. The remaining 2,000 HTG is divided between the crew. If there are four crew members, each receives 500 HTG.

Gana: Ok, I understand. How much money do you make fishing? Per week? Per day?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): That depends on the fish you catch during the week. There are some fishermen that make 40-45,000 HTG in a week if they catch tuna or balawou. A large fish can sell for as much as 25,000 HTG.

Tim: What do you with such a big fish? You said that it's hard to sell large fish...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, we sell them to local merchants that divide them into smaller pieces to resell.

Tim: Is there no one you can call to sell the whole fish? Like if you catch a marlin?

Participants: No

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, that's our biggest problem... I want to add what he [#19] said. Yes, you might sell 25,000 – 50,000 HTG worth of fish, but you spend nearly that much on expenses.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): If not more...

Gana: Ok

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): You have to purchase fuel, food, fees, etc. It's no exaggeration, you can fish with 4 people and not a single one of you takes home 1,000 HTG.

Gana: That sounds challenging.

Gana: What fish brings in the most money for you?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): We already responded to that question.

Gana: No, because he [#16] just told me that you can catch a marlin that sells for some 25,000 HTG. What about dorad? How much do you sell them for?

Tim: A really large one.

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): Among all the fish, marlin fetches the highest price.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): Marlin and tuna

Tim: Depending on the size?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes, it depends on the size of the fish. If I catch 10 dorad, then I will make more money than if I catch a single marlin.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): It depends on the total weight.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): And size

Gana: That means that there is not one type of fish that sells for the highest price, rather all fish bring in money according to the...

Participants: ...the quantity.

Gana: Of the quantity and size?

Participants: Yes

Tim: They don't distinguish between them to say that fish is more expensive than that one?

Participants: No

Tim: So it's the size and quantity?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Yes

##Sharing fishing proceeds with spouse

Tim: Let's say, if your husband catches fish and brings them to you, if he sells them to another woman you won't be mad?

Public: No.

Tim: You let him sell to her?

Public: Yes, he helps me. He's helping me.

Tim: He helps you but do you take the money or does he... ?

Public: Yes, he takes the money.

Tim: He takes the money?

Public: Yes

Tim: Will he give it to you?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Yes, he'll give it to me.

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Yes, he'll give it to you.

Tim: And if he doesn't give it to you, then you'll be mad?

Public: [laughter] If he doesn't give it all to me he'll give me some. They give us something, even if they take some of it for themselves. Even if they take part they'll give us the rest. [laughter].

##fishing vs. Livestock and Gardens

Tim: 17, do you have goats?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): No, I don't have any.

Tim: Pigs?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): The hurricane killed them all. I don't have any more.

Tim: You don't have a farm?

#17 (Abriko, Female, age 50, 8 Children, Fish Trader, 17, No education): Yes

Public: Yes, we have our little gardens.

Tim: 15, you have a garden?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): I do, but it doesn't have anything in it yet.

Tim: 15, you have goats?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): No, I had 25 but they died in the storm.

Tim: OK, and you, 18?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader & Farmer, 3rd Grade): Not one survived.

Tim: 18, you don't even have a garden?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): I have one but I'm just getting it started. My crops were destroyed but I'm getting them replanted.

Tim: What are you planting, mostly?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): I'm putting in yams, plantains, beans, manioc.

Tim: OK, and you, 16, you have a garden?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): I don't have a garden, no. I had livestock but they died.

Tim: They died, but you had them?

#18 (Abriko, Female, age 40, 5 Children, Fish Trader & Farmer, No education): Here, in Grand' Anse. The hurricane didn't leave anything behind for a poor soul like me.

Tim: But do you have a garden now, 5?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Now, I have a little garden that's just getting started, yes.

Tim: What do you plant, mostly?

#5 (Abriko, Female, age 40, Unkwn Children, Traveling Merchant, 1st Grade): Plantains, bananas.

Tim: You, do you have a garden, Momi?

: Yes, now I'm growing crops but in the storm all of my fields were destroyed. I'm starting all over.

Tim: Do you have, you have livestock?

##: All my livestock was killed in the storm. I have none left.

Gana: The storm, nearly two years ago, it is a point of reference for all of you, the hurricane. It was nearly two years ago.

Tim: And you, 19, do you have a garden, do you have livestock?

#19 (Abriko, Female, age 31, 2 Children, Fish Trader, No education): I have a little field I'm just starting to plant.

Tim: Now you're starting, you're, what number are you again?

#31 (Abriko, Female, age 50, 7 Children, Fish Trader, farmer, 31, No education): 31.

Tim: 31, do you have a garden?

#31 (Abriko, Female, age 50, 7 Children, Fish Trader, farmer, 31, No education): I'm just getting started now.

Tim: You're starting now, and, 20, you have a garden?

#20 (Abriko, Female, age 26, 1 Child, Fish Trader, farmer, 20, 12th Grade): Yes, now.

Tim: Now you have a garden

[The cost of living is so expensive you can't buy meat. If you don't have money you can't live.]

Gana: That means since the hurricane you've had time to replant?

Public: Yes.

Gana: It's just simple little things that give you the limited resources you have?

Public: Yes.

Gana: That's what I'd say after the storm, because...

Public: Yes, since the storm there's a little food, we find a little food in the market, even if we don't get anything from the earth, we find a little something to eat in the market.

Tim: Even what?

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): There are times you plant, you plant yams and you get nothing back. The yam you planted [you don't get anything else]. You replant and replant and they don't produce anything.

Gana: And, well, ladies, we are happy with the information you've provided...

#15 (Abriko, Female, age 42, 5 Children, Fish Trader& Farmer, 3rd Grade): We're happy, too.

Gana: We've collected a lot of information, a lot. I don't know if you have any other questions, Tim?

Tim: Between farming and fishing, what's more important for you?

Public: They are both important. Both are good. Sometimes, fishing, when you can get fish, you'll have something to eat. Sometimes, if you have crops in the garden, all you have to do is dig something up.

Gana: Number 16 just said something very important, Tim ?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Yes, I mean when people plant crops they can harvest six months out of a year, but fishermen harvest from the sea. They might come back with nothing. When that happens, we wind up with nothing, too. When they go out and catch fish every day, we make money too. [We have hope]. What we sell, we can harvest, too.

Tim: You can harvest, you can plant crops?

#16 (Abriko, Female, age 39, 8 Children, Fish Trader& Farmer, 7th Grade): Yes, you can harvest your crops.

Natacha: Ok, outside of fishing what else do you do?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): There are some of us that fish, others that farm...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Some raise livestock

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):It's not just when the sea is strong. It's also when there are storms on the horizon ("*fume nwa*") that prevent you from going out to fish or docking the boat.

Tim: Do you have a garden?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No, I don't have garden

Tim: Do you have goats?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):No goats

Tim: Do you have any other source of income?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Nothing

Tim: Only the ocean?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Well, I have a garden, but I don't have goats or pigs.

Tim: What about you?

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): I have a garden, but I don't have goats nor pigs.

Tim: Who else?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): We had more, but a lot of it was lost in hurricane Matthew

Tim: You haven't been able to replace it?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): No, not yet

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Just fishing

Tim: (Laughter) No, no. You are overrun with goats. I can see them. You let them range freely in the bush.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Only in the countryside

Tim: Do you tie them up?

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): You have to tie them or else they'll get into other people's gardens.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): And they'll kill your goat

Tim: Ok, I want to know, among all of those different livelihoods – livestock, farming, fishing – which is most important for you?

Gana: Between fishing and livestock, what is most important in terms of income?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): They are all important. They all serve a different function. I don't know about the other gentlemen, but in my appraisal they all have importance.

Gana: They are all important, but which one brings in the most money? Or most value?

#15 (Abriko, Male, 53 years, 7, Fisherman, Farmer, 8th Grade): If I had to choose between them, then I would choose fishing. The sea is a resource that replenishes itself. It's not like selling a goat during a time of emergency. That goat is difficult to replace. The same with a cow. If you sell a cow to pay for school fees, then it might take 2-3 years to scrape together the means to buy another. But if you sell a fish today then there's a good chance you will catch another fish tomorrow. You can catch some 10 or 12 fish in a week.

Tim: What about in your garden? Which crop is most important? Such as yams?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): Yams and plantains

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):It's important to note the difference between farming and fishing. Farming has seasons. Some crops take as long as one year to harvest. There are some months you don't make any money from your garden. But fishing is something you can harvest all year. That is why we place more value in fishing than farming. Some people aren't able to maintain a garden, because they don't have time or money.

Gana: Ok

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Of course, if you have the means then you should maintain a garden and fish. Both are part of our livelihood strategy. If you don't catch anything in the ocean, then you can always harvest a few yams or plantains to eat. Do you understand? It's important that you make note of that in your report.

Gana: Yes, I follow what you are saying...

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):The two are connected. Like my friend said, you might sell a cow to pay for expenses, but fishing allows you to raise money to purchase replace that cow.

Gana: A final question, if you had to ask for assistance, what would choose: support for fishing or support for your farm?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):I would choose both of them!

Tim: (Laughter) You can only choose one!

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Fishing

Tim: What would you choose? Fishing? Garden? Or livestock?

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade):Fishing

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): I would choose my garden

Tim: Your garden?

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): A garden gives you the best chance to be self-sufficient, especially at my [advanced] age. What we need most is a service to provide agricultural credit.

Tim: And you?

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): For me, my place is at sea. I like it too much to give it up. I ask God that he let the sea be my final resting place (Laughter). I would prefer not to die on land.

Tim: (Laughter)

#15 (Abriko, Male, 53 years, 7 , Fisherman, Farmer, 8th Grade): I have to give up fishing, because that way of life is getting me down.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): I disagree. Even after all the expenses, you have a good chance to take home 100 *dola* (500 HTG) fishing *everyday*. While you can only harvest yam or plantains once a year.

60 Minit

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): You can make money fishing everyday.

#20 (Abriko, Male, 49 years, 7, Fisherman, Farmer, No Education): Everyone has their own priorities, but for me the sea is the most important resource.

Tim: Number 5, what would you choose?

#5 (Abriko, Male, 38 years, 3, Fisherman, Farmer, No Education): The sea is something that I value a great deal. I like my garden as well. But if I had to choose, it would be the sea... I'll give you a personal example, I might spend 1,500 HTG on petrol when I go out to fish. Even if I don't catch a single bonito and lose money, I would still return the again and again because the sea is my domain. I can't give it up, even if it drives me into debt...

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): Because you can make it up in a single good day of fishing.

Natacha: You place faith in it

Participants: Yes

Tim: You?

Unidentified Participant: I love the ocean so much. I love it as much as laying with my wife! (Laughter) I have 7 children. I was able to raise all of them on what the sea provided. It's sent them to school. They are too young to help me fish, but I plan to teach them when they come of age. I am very grateful.

Tim: Number 18?

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): Fishing provides money and food. You can eat your catch immediately. A garden takes time to yield a harvest. You have to wait 6 months or more for it to mature. Fishing lets you take on more debt because you know that you can pay it back tomorrow.

#16 (Abriko, Male, 32 years, 1, Fisherman, Farmer, 2nd Grade): In a single day.

#18 (Abriko, Male, 34 years, Teacher, Goat Farmer , 3rd Grade): A single large fish can bring in 25,000 HTG. Some times of the year are better for fishing, but you can do it all year. When you plant crops, you have to wait for the rain. Farming also requires a lot of inputs. All of those reasons make fishing more profitable.

Tim: Ok let's finish with number 19.

#19 (Abriko, Male, 35 years, 5, Fisherman, Secondary): I agree with everything they have said. Everything that I have I owe to the ocean and the good lord. Even after I went to school in Port-au-Prince for secondary school, I decided to return in order to fish for a living. And I don't regret it for a moment.

GOATS

La Ferme Goat Focus Group. 31/01/2018

Participant list (ID, Sex, Age, Number of Children, Occupation, Education attained)

#9, Male, 37 years old, 0, Farmer, 5th

#11, Male, 34 years old, 0, Farmer, 6th

#13, Male, 37 years old, 4, Farmer, 9th

#1, Male, 45 years old, 4, Farmer, 6th

#4, Male, 62 years old, 8, Farmer, 6th

#7, Male, 62 years old, 0, Farmer, 0

#12, Female, 56 years old, 4, Farmer, 4th

#3, Male, 65 years old, 6, Farmer, 9th

#6, Female, 27 years old, 0, Farmer, 6th

#8, Female, 39 years old, 1, Farmer, 6th

Dayè Goat Focus group. 2/01/18

#4, Female, 49, 4, Farmer, 5th

#8, Male, 58, 4, Farmer, 4th

#7, Male, 46, 2, Farmer, 0

#3, Male, 62, 9, Farmer, 2nd

#12, Male, 48, 5, Farmer, 6th

5. Production

##Goats as part of a larger Livestock Strategy

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): A lot of us had goats, but Hurricane Mathew killed them, the things goats gave us they're not getting at the moment, because a lot of animals died after Mathew.

Islande: Mmm hmm, is there nobody else who wants to answer?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): But that's a question, it's a response for everybody.

Islande: Yes, but another question I'd like to ask is... If I have a goat, for example, I have a goat, and a cow, and a sheep, and a pig, and two or three chickens, why wouldn't I say, a disease could come, I have a cow and I'll put the rest of my money in goats. That way I know if people need goats in the area I can go to this gentleman's house, or that lady's house, I'll find goats to buy, has that never occurred to you, for each of you to take your money and pool it to buy a portion of something? Has that ever happened?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): That hasn't happened, because the way it works is everybody puts a portion of what they have in each thing.

Islande: In each thing?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): In each type.

Jackly: Why do you think each person puts a little portion into each thing?

Islande: In each type?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Why?

Islande: Yes, why do you do that?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): I can tell you, a little advantage in that is, you're a farmer and you keep a pig. You have other things but the pig is what's for eating. You have grass on your land that the pig won't eat, so you keep another animal for the grass. If you have a mule you can carry things with it.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): That's why we can't do it. People might have two head of cattle, maybe two pigs. He sells them to buy a herd of goats, he just has goats. That's all he does. You can't do that here. You'll lose too much money in a lot of other things.

Jackly: OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Because when you have pumpkin squash on your, property what are you going to do with it? Are you going to find people to buy it? When you pick a bunch of taro, what are you going to do with all of the greens? Pumpkin won't grow in their place. What are you going to do with it all? Do you need the pig?

Jackly: OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): But you have to keep the pig someplace. You can't walk it to the pasture when it's full of grass. You need another animal to eat that grass.

Islande: (laughter)

Jackly: What you're saying is important. A lady was saying...

Islande: Number 12.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Sometimes.

Jackly: Listen.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Sometimes you might have a cow. Not your own, one someone gave you to care for. There's a time it reproduces, if the man's wife has a baby it's like she has a garden in the house every morning.

Jackly: The milk, yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You understand? He can drink it, or sell it, then buy something else with the money.

Jackly: Number 12.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): That means if you keep a goat you tie the it in part of the pasture. If you have 2, 3 goats that you're going to let loose on somebody else's land, a neighbor, when they get there the neighbor won't help you release the goats in his garden, if you're not putting a herd there. He won't help you put them there, so you can't be just a goat keeper.

Jackly: Ok, the answer number 3 gave is like one a lady gave, almost the same. Yours is really more dense. She says, for example, there's a problem when you have a chicken to sell, you don't have to sell a goat. She says when you have a problem you need to sell a cow to solve, a chicken or a goat won't do the trick for you. OK, that's the reason she gave, but your reason, and this is the first time we've heard it, there are things you need to do that you can't do with a pig, you need a mule. There's grass, too, that are for mules to eat. Thank you for that response. Does anybody have anything to add to it?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): It's difficult for someone to keep all one thing. You always need a little bit of each thing.

Jackly: OK, let's move on.

Islande: Ok, I have a very important question: between your goats and your garden, what is most important? What would you prioritize if you had to choose?

#8 (Daye, M, 58, 4, Farmer, 4th): Our garden brings in more benefits... Why? Because then you don't need to buy food every day. Then you can use the money that you do have to purchase goats. You can't kill a goat every time you need to eat. The meat doesn't keep for long. But you can harvest your garden a little each day you need food.

In that sense, raising goats is a secondary livelihood to gardening. Goats help you bring in more money, but they don't necessarily feed your family. You can use the money from selling goats to purchase supplies or labor for your garden. Or you can sell the harvest from your garden to buy goats. They support each other.

Islande: What benefit do you get from raising goats that you don't get from other animals, such as sheep, pigs or cows?

#8 (Daye, M, 58, 4, Farmer, 4th): You make money faster with goats, to pay for your children's school. It's much easier to sell a goat than a cow. And they are less work to keep than pigs. You can graze a goat just about anywhere, while you need to take care where you tie a cow or pig. Goats also produce litters more often, even if the litters are smaller...

##Types of Goats

Islande: OK, OK, let's move on. What kind of goats were there in the area? Were there foreign goats, were there other breeds of goats that you know of in the area?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): There are improved long-ear goats and there are creole goats.

Islande: There are improved long-ear goats?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes.

Islande: Improved long-ear....

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): But they're not easy to find. Just a few projects have brought them in.

Islande: But do you have them around here?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No.

Islande: I didn't say which there are...

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We don't have it.

Islande: In the area.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): They don't sell well there. They sold them as soon as they were ready.

Islande: You don't have them any more ? So, you have just one kind, the domestic breed, right?

Public (Lafem): Yes.

Islande: Yes, OK, and have you ever heard of a wild breed around here?

Participant: There's no wild goats left.

Islande: Goats that have lived in the woods, ended up in the woods because they had no owner.

Public (Lafem): No, there aren't any.

##Free Randing Goats

Islande: How do you raise the animals? Do you keep the goats tied on a cord, or do release them?

Public (Lafem): We keep them on a cord.

Islande: Everyone please remember to say your number when you speak. Number 12, you may speak.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): I keep them on a cord.

Islande: OK, number... what's your number again?

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): Number 9.

Islande: Number 9.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): I keep goats on a cord.

Islande: You keep your goats on a cord, but are there people who release them in the high areas or in large pastures?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3. I keep goats in a place with a pasture that's not too small.

Islande: Some I tie, others I release. The ones released follow the biggest ones so they don't go far, because there are lots of dangers when you release goats on their own. I leave them in a pasture with their mother so they don't go far.

Islande: Is that pasture yours, Number 3, or is it the government's, or... ?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): My own pasture when I'm not working on state land.

Islande: OK, is there state land in the area where people go tie their goats, or release them ? It's not close, it's all the way over in Gran Bwa, the big forest, the state land.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Only the people close to it....

Islande: Tell me your number, 13.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Number 13, everybody who is near it, people who live in the woods (*Gran Bwa*), they use it, release their goats in it.

Islande: The woods, what locality is that in ?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You're talking about Lopino, Balbari, Marouj.

Islande: OK Bwa Tanpe, Ennchi, Tozya, places without a lot of houses, that's where, people below here work, there are managers there and they go release their goats in those woods? Tozya, Tozya is not in the Chalèt area?

Public (Lafem): Lè Zanglè.

Islande: Lè Zanglè is higher, you leave Chalèt and go up?

Public (Lafem): Chalèt is there.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Chalèt is here.

Islande: And the way you go you pass Nan Ranp ?

Islande: Ah, OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You go all the way.

Islande: OK, you all here don't have goats up there, all the way up ? You don't go and keep your goats far away like that ?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We keep our goats close so we can keep an eye on them from time to time.

Jackly: Just now you were saying that releasing goats was dangerous.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When you release goats in the woods you might think they're there when they're not. They might go into another pasture and get lost.

Jackly: OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): People might take them, too. Or a goat you let go free it's not good. Sometimes a mother might make babies with its father, the offspring breeds with the father, you understand? It's not good for us. Brother and sister. We keep our goats contained with cords so we can control them.

Jackly: Ah, OK. Around here you don't want a goat to impregnate its sister?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, no.

Jackly: ..., but they say there are two breeds of goat you have [this is a joke, a play on the Kreyol expression that some people breed like goats, meaning they have mate with people who are family] ...[laughter]

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): With relatives, with relatives.

Jackly: Around here you don't want that?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, we don't want it to be that way.

Jackly: It's like that for everybody?

Islande: Is it for you or for everybody?

Jackly: Number 13.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): For everybody.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): But we do training for everybody.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): In not releasing them so they don't get into people's gardens.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, we tell them not to beat them for getting into gardens.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Yes, yes, to keep them from getting into people's crops we keep them on a cord.

Islande: OK.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Sometimes when a goat is eating in the woods it can get its head caught in the brush.

Islande: Who else is going to say something. (Silence) Nobody else is going to say anything? I can start?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Well, number 1, number 1. It's always the same thing, meaning sometimes it's like they have said, it will go into somebody's pasture, and the person can take it and leave it with the state, and then you have to spend money to get it back.

Islande: OK, number 7 you were saying something?

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): No, that gentleman covered what I was going to say.

Islande : You let them free range?

#8 (Daye, M, 58, 4, Farmer, 4th): If you have pasture, you can let them graze freely. Or you tie them on a parcel of land. We don't keep goats inside.

Islande: I see.

#3 (Daye, M, 62, 9, Farmer, 2nd): Each morning and afternoon we rotate them to a new parcel of land. You have to check on them at least 2 times per day to make sure they have enough food and haven't got caught on their the rope.

Islande: You continue that regimen until they are ready to be sold?

##Quantitites of Goats

Islande: Mmm hmm, OK, let me ask each of you how many goats you have grazing, not all animals, just goats. Let me start with number 4. How many goats in your pasture?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4, I have three goats grazing.

Islande: And you, number 7?

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): Well, I don't have any. Mathew destroyed what I had.

Islande: OK, number 12.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Well, it left me with one, because I don't have much.

Islande: OK, How many in your pasture, number 3?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Well, I'm not keeping any goats now. I just have one pig. I don't keep goats.

Islande: Number, what number, what number?

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): Number 6.

Islande: Mmm hmm, you have three goats you're grazing.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): I don't have any. Mathew killed them.

Islande: OK, and you?

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): I just have one.

Islande: Number 11, what's your number, sir?

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): I just have one. It has two kids.

Islande: OK, number 1.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): I don't have any. I have sheep.

Islande: OK, number 13.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Right now I have seven.

Islande: Seven, OK, and looking at the whole area, if we're talking about someone who's a major goatherder.

Jackly: How many goats might that person have?

Islande: How many goats would that person have?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): There are no major goatherders here any more. They have declined.

Islande: Yes, even if they've declined there are people who have more.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Let me tell you, schooling has gobbled them up, the storm has killed them. You'll find people keeping two or three goats, four goats, or more.

Islande: And you?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): But the goat business has declined, totally.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Number 12, there are no goats, there are no goats.

Islande: Number 12, there are no goats?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Yes, there were goats but the weather killed them.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Goats have declined.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4.

Islande: Who's talking? Number 4.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): No, the bad weather has left people with hardly any goats. A single person lost 30 goats.

Islande: OK, is it easy to know how many goats a person in the area lost... how many did the person who lost the most lose in the storm?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): There are people who lost 16 goats...

Islande: Among the people we heard say they lost goats, the highest number, like people said they lost 10 goats, or 20 goats. There was one who talked about losing 30 goats, 30 is the highest, you understand?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Like the person who lost 30 goats, some were in the hands of someone who kept them for him.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, he lost a few.

Islande: Well, they were still his goats. And no one had more? The person with the most, how many goats might he have?

Public (Lafem): Yes, there were people who had more goats. You might not know. I can tell you a gentleman higher up lost 34 goats, goats and sheep.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Some you won't know about because not everybody talks to you.

Islande: Mmm hmm.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): That's somebody else he's talking about.

Islande: Well, what have you heard yourselves?

Public (Lafem): Me, that's what I've heard.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Let me say something, raising livestock... number 13... livestock is something a person does here in herds, like they'll have a herd of goats.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When they want to sell, they'll come buy goats from me.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You won't know his business. You might see he has two goats with him, yet he has one in the hands of every other person there, or two in the hands of each person who's there.

Islande: When they die you'll know how many he had.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): If he'll tell you, he'll tell you.

Islande: Yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): If he won't tell you, you won't know. That lady had two goats. The goats died, but if you don't know they're hers you won't know she lost them.

Islande: OK, that's what happened.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): That's how it is around here, people don't know other people, so they might not know whether a person has animals. You can't say he has none, you can't say if he has them. You can say you know the person but don't know how many animals they have.

Islande: OK, with this group, we can say that a large percentage of you don't have goats at the moment?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You see.

Islande: What keeps you, if you see goats as important livestock, what keeps you from raising goats?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): The thing that prevents us is that we lack the means to buy goats.

Islande: For those of you breeding, buying and selling goats, how many do you have in your pasture?

#8 (Daye, M, 58, 4, Farmer, 4th): It depends on the means of each goat breeder or herder. And the time of year. Sometimes we have to sell goats to pay for school fees. But at a minimum we have 6 goats at any time.

Islande: Ok. Right now how many goats do you have?

#8 (Daye, M, 58, 4, Farmer, 4th): At the moment I have 8 goats.

#4 (Daye, F, 49, 4, Farmer, 5th): Well, when I have money I use it for commerce - to buy and resell products. Now I have 4 goats in my pasture, but I might sell them to raise money for my other commerce because I have to repay a loan.

Islande: Who loaned you the money?

#4 (Daye, F, 49, 4, Farmer, 5th): I got a loan from FONKOZE.

(Short silence)

Islande: Does FONKOZE have a representative here?

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes

Islande: What about you, number 7?

#7 (Daye, M, 46, 2, Farmer, 0): At the moment I have 3 goats. They are good breeding goats.

#12 (Daye, M, 48, 5, Farmer, 6th): I only have 2 goats, because I don't have the means to purchase more.

#3 (Daye, M, 62, 9, Farmer, 2nd): During the hurricane I lost 6 goats. Now I am only left with 1 goat.

Islande: What about you, how many goats did you lose in the hurricane?

#8 (Daye, M, 58, 4, Farmer, 4th): 16.

Islande: Number 4?

#4 (Daye, F, 49, 4, Farmer, 5th): I lost 9

Islande: And you number 7?

#7 (Daye, M, 46, 2, Farmer, 0): I lost 11.

Islande: Number 12?

#12 (Daye, M, 48, 5, Farmer, 6th): I lost 7.

##Feeding Goats

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Goats eat *zegwi, kwatemala, bwa patat, kòlkòl* [all wild shrubs]

Islande: You never gave your number, number 3.

#3 : It's still me. It's still my same voice. (laughter) Number 3, cane leaves, corn husks.

Islande: OK, let the rest of the people give us the rest.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Speak, sir.

Islande: Yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It's not only me that's in the werewolves' society [this is a play on the earlier reference to werewolves/witches]

(laughter)

Islande: Let's discuss what other food you give the animals.

Jackly: Numer 11.

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): You can use the goat, you can get it used to, give it the skins or husks of crops. You get it used to it...

Islande: Skins of cooked food, or raw?

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): Skins of raw food.

Islande: Raw?

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): Yes, you give it that, it gets used to eating it.

Islande: OK.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8.

Islande: Mmm hmm.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): It eats bean husks, and there are goats that drink water because that's good for it.

Islande: Mmm hmm.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Because its growing well.

Islande: There are goats that drink water. Or do all goats drink water?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): There are goats that drink water.

Islande: There are goats that don't drink water?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): There are some that don't drink water.

Islande: Well, all goats drink water, you just don't give it to them. There are some you give water? There are some you don't give water?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Because sometimes when you leave the water, when you put out the water, there are goats that drink it and goats that don't want the water.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It depends on the food the goat is eating.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): Number 9, all goats drink water.

Islande: Mmm hmm.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): When you tie a goat in the brush, it eats the food it finds.

Islande: Mmm hmm.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): It eats and drinks water. It eats and at the same times consumes dew, that's how it get's water.

Islande: What do the goats around here eat? Or, what do you give the goats to eat in this area?

Islande: Mmm hmm, and food, is there any food you prepare for the goats to fatten them up? The way you fatten a pig, you can make a mixture of breadfruit, fruit and vegetable peels. I don't know a lot of the mixtures, they put salt in and give it to the pigs. Is there a mixture like that people give to goats?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4, we haven't yet tried giving mixtures like that to our goats.

Islande: And none of you have done that? Yes, no?

Public (Lafem): We don't do that.

Islande: Exactly, what food, when you put the goats in it, have you noticed that they eat the most of?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): *Zegwi*.

Islande: *Zegwi*?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Yes.

Islande: So, people were just telling me something, what *zegwi* are good for goats to eat ? All kinds of *zegwi*, unripe, or ripe?

Public (Lafem): Ripe.

Islande: Ripe ones?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Ripe ones are best for them.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Too ripe is not good. Too unripe isn't good either.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): If I put goats in unripe *zegwi* it can give them...

Islande: Number 12.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Number 12.

Islande: Mmm hmm.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): If I put the goat in unripe *zegwi* it gives it.

Islande: Mmm hmm, OK, there were others who were going to speak over there.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Yes, I said...

Islande: First your number.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Number 13.

Islande: Mmm hmm.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): I said when a goat eats ripe food it's better for it than unripe, that's what I would add to what the ladies said.

Islande: Mmm hmm, and what food gives them, helps them develop fastest?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): For goats to grow best, you have to rotate them early in the morning when the dew's still on the ground, and then let it eat well. It gets nice, ripe food, a good meal. It might have to move two or three times for that to happen. And if the food is nice and close the goat will develop well, fatten up nicely. It has to drink water, too, and it will develop normally.

Islande: OK, is like they say, if you give children tasty food they grow quickly? Is there a food like that you give the goats that makes them grow quickly?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): No.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): We tie them and feed them. We manage them.

Islande: Like when you need to fatten them up.

Jackly: Pigs, wheat bran.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When the animal gets a nice mix, with potatoes in it, it has leaves in it, fronds, things you put in pig food, guinea grass, it will eat the long leaves, and it's not just the goats, any animal will look better and get bigger faster.

Islande: How do you raise the goat? Do you feed it fodder? Or put it out to pasture?

#8 (Daye, M, 58, 4, Farmer, 4th): If you don't have enough fodder, then you have to let it graze on the pasture. Sometimes they fall sick, so you take them to the veterinarian for a shot or

medicine. Then you need to give it good food so it can recover. We try to keep the goats 2-3 months to fatten them up before reselling them.

##Household Labor and Who Cares for the Goats

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4, in my house, everybody rotates the goats.

Islande: When you say everybody?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): My wife moves the goats, takes them to the pasture.

Islande: Hmm, the children rotate the goats, too. When you say children, little girls or boys.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Both girls and goys, meaning when an animal is in the pasture, if I'm busy or not there, the little girls sometimes goes to get the animal and bring it back.

Islande: OK, number 7.

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): Yes, in my household everybody rotates the goats, it could be a girl, or a boy, everybody is able to go to the pasture in the afternoon and get the goats, and bring them home to tie again in the yard.

Islande: OK, and you, ma'am?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Sometimes dogs eat goats, so you can't let a goat sleep overnight in the woods. So if your husband is not there you have to go get the goat and put it in the house.

Islande: And in your case?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Me, if he's not there I'll rotate the goat, I'll go there and move the goat.

Islande: Are there children in the house, too?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): I have children.

Islande: But you don't send little children?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): No, sometimes you can't send the children, so you have to do it.

Islande: OK, and for you, number 3?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3, me, I don't have anybody in my household who doesn't go tend to the animals, moving animals, mules, all of hte animals. All of the animals we have, everybody has to be able to rotate them. In our community, there's no question, if you're eating, that you won't work, too. Everybody helps with the animals.

Islande: OK.

#3 : Simply, maybe if it's a girl I send two, or I send three because they're girls. When it's a boy I might send just one. He can go alone. (laughter)

Islande: OK, when it's the girls you send several, when it's a boy you send...

3 : I just send one. Just one. You understand? Because a girl can't walk through just any forest by herself, it's not safe. As the lady was saying just now, if the place you're tying the goat is in your own pasture, there's no problem, but if you're leading it to somebody else's house, the man will be leading you into his pasture to breed the goat, and some men are not honest people.

Islande: Ah, OK, and you ma'am, number...

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): Number 6.

Islande: 6?

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): My father and I go.

Islande: You and your father? You, or your father, or both of you?

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): Yes, either me or both of us.

Islande: OK.

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): When he's not there.

Islande: You don't have children yet?

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): No.

Islande: OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): A baby [laughter]

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): When I'm not, when he's not there I'm the one who rotates them.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You don't see him sitting next to me? His heart is breaking. (laughter)

#6 (Lafem, Female, 27 years old, 0, Farmer, 6th): When he's there he's the one who rotates them.

Islande: OK, and you, your number?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8, I rotate the goats when my husband is not there. When he's there, he's the one who does it.

Islande: You mean as long as you don't do it. (laughter)

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): No, but I might take it in the yard when my husband is not around to go get the goat or go take it somewhere for breeding.

Islande; OK, but not to go breed the goat. (laughter)

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): No, I don't want that.

Islande: (Laughter) And what's your number? 11?

Public (Lafem): Number 13, 11 number 11.

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): Number 11.

Islande: Mmm hmm.

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): Me, an adult, I rotate goats, I move them. I can change them, I have more experience than children. If I send a child to tie the goat someplace... the child doesn't have the same experience I have. I can choose a good spot, but the child doesn't have the experience to do that. I'm mature, I can choose and rotate the goat myself, because the child doesn't have the same experience.

Islande: OK, and you don't have a wife in the house who can rotate them too?

#11 (Lafem, Male, 34 years old, 0, Farmer, 6th): No.

Islande: OK.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): Number 9.

Islande: Mmm hmm.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): Me, along with my little sister who's in the house. When I'm not there she rotates the goats for me.

Jackly: OK.

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): And when I'm there I rotate them, but when I'm not there she's the one who does it for me. Every afternoon we go get them and return them to the yard.

Islande: OK

Jackly: How old is your little sister?

#9 (Lafem, Male, 37 years old, 0, Farmer, 5th): She's about 36.

Jackly: Ah, OK.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Number 1. Well, I'm the one who rotates our goats, on my own. And I have four children. Sometimes they don't want to go, and I go, but they rotate them, too.

Islande: When you say four children, four sons?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): No, I have two girls, two boys.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): And they help me rotate the animals usually, They help me rotate them the most often, but sometimes if I'm not there the children might keep my wife from leaving.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Number 13, in my family there are six people, and four of them can do it. Among those four, I'm the one who usually does it. There are places you can't send a child. Sometimes there's rain, so you go tie them in the morning, you need to go get them in the afternoon. The sun is like that. There are places you tie them, you don't want to send a child. They can do it but it's not like my wife can't. Because, you know, everybody has

times when they can leave. When you are there, you can go and your wife has to stay home to take care of things. When I'm not there I come up with strategies, especially when I sometimes leave for two weeks for seminars, like I always buy some grassy spot nearby where I can put them, and rotate them nearby, near our yard. When I'm here I go wherever I want with them.

Islande: Who rotates them when you're not there?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): When I'm gone? The children, and my wife.

Jackly: When you say children... girls, boys?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Yes, I have a little boy who rotates them, and I have another girl, plus my wife.

Jackly: OK.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): And then I have other friends I can send on errands.

Islande: But the girl rotates too?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Yes, she does.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The way women make people spend money, as soon as the money is made they hurry to ask for it.

Patisipan: Yes, all girls know how to rotate goats.

Islande: How long does it take for the goat to give birth?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Five months.

Islande: Number 3, five months.

Islande: Five months for it to give birth?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, you breed it and it gives birth in five months.

Islande: OK, how long does the goat nurse?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It might do it for three months, maybe more. There are goats that cut off the kids faster than others. There are goats that nurse two months and they're in heat, they breed again. After three months they don't want to nurse the baby any more, they give the little one a head butt.

Jackly: OK.

Islande: Do you ever take your children to help you?

#8 (Daye, M, 58, 4, Farmer, 4th): Yes, sometimes we go to the market with our children to help bring the goats home.

Islande: Children? Do you take your daughters? Or sons?

#3 (Daye, M, 62, 9, Farmer, 2nd): Young sons.

Islande: You don't take your young daughters at all?

#4 (Daye, F, 49, 4, Farmer, 5th): We take both of them.

#8 (Daye, M, 58, 4, Farmer, 4th): As long as they are out of school.

Islande: When there's no school?

Audience: Yes

Islande: Do you take your own children, or children from the neighborhood?

#8 (Daye, M, 58, 4, Farmer, 4th): No, my own children

Islande: Do you take your sons? Or daughters?

#8 (Daye, M, 58, 4, Farmer, 4th): I take both

Islande: And you number 4? Do you take your children with you to the market?

#4 (Daye, F, 49, 4, Farmer, 5th): Yes, my children. Both sons and daughters.

Islande: And you, number 7?

#7 (Daye, M, 46, 2, Farmer, 0): Yes, I take my own children...sometimes the neighbor's children.

#4 (Daye, F, 49, 4, Farmer, 5th): Sometimes I go with my husband.

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes, we all do it the same way.

Islande: Number 12, you haven't said much...

#12 (Daye, M, 48, 5, Farmer, 6th): I just spoke up a little bit ago. I want to let other people have the chance to talk. Yes, I take my children with me as well.

##Bad Weather

Islande: Hmm, what do you do with the goats when it rains?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): When it rains we put the goats near the house. We make tents under banana trees for shelter.

Jackly: You don't beat them.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Don't hit them, and then we make a little house and put them in it.

Islande: Mmm hmm, nobody else wants to respond?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Same thing. We always have build something to put the goats in when it rains. We put them under the shelter, with a little earth under it where it can graze a little. If there's no dogs around that are going to eat them we leave them there. You might find a rock overhang for shelte, put it there. If you put all the goats under something like that, only the ones you tie will stay there.

Islande: In your case, if you buy a lot of goats what do you do with them when there's a storm?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): If I buy lots of goats what do I do with them in a storm?

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Well, what I do, if I have had time to move them, I sell them.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Now, I do the same thing with them, I tie them in the yard, and then I put them under a nice clean banana tree, I put up a little house so the weather won't completely destroy them.

Islande: How do you raise the goats? What happens when it rains?

Audience: Where do we put them?

#8 (Daye, M, 58, 4, Farmer, 4th): In the open air.

##Illnesses

Islande: OK, now what to ask, is when you buy a goat in the market, the goat you buy, do you need, how should I put it... let me ask another way. The goats act in a way that lets the buyer see whether it's sick. Do you know what they do that lets you know whether it's sick or healthy?

Jackly: Meaning, if you come across a goat in the market...

Islande: Mmm hmm.

Jackly: And the goat is sick, will you be able to tell?

Islande: Will you recognize it?

Jackly: What can you touch or see in the goat to tell you?

Islande: To see whether it's sick.

Jackly: That it's a sick goat so you shouldn't buy it?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Number 1, sometimes you come across a goat and you stand and look it over, you choose the goat, and then you see that it will only lie down. When it's walking it lies down, and you might notice it has bad diarrhea.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): You will see that it has diarrhea, and it's not just that. You can see that it's a sick goat. And you might notice marks, on its feet, maybe it got caught in a cord, or something hit it, and you will be able to see the damage to the goat.

Islande: How do you tell if it has been hit?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): No, it might...

Islande: Number 1.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): It has, number 1, it has four feet, you might notice that one, you look for what's right and what's not. You might notice on one foot that a cord cut it, so it has a scar on the foot.

Islande: What do you do with the goat, breed it?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): No, you have to find a way to do that...

Jackly: Breed it while you are raising it?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Whatever is the best thing for you to do with it.

Islande: You feel it, inspect it with your hands?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): No, you don't feel it, you go over it to figure out how it can benefit you, see if it's sick, you look to see if it has a cut from where it was tied with a cord, or hit with a rock, or anything that might have hurt or sickened it.

Islande: OK.

Jackly: Where do you...

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Sometimes you get to the market to buy a goat and you see a goat you are considering buying has scratches on it.

Islande: Mmm hmm.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Little scratches on its ears, or the side, or little cuts, and you get it in your head that's the reason the owner decided to sell it, but you can still buy it.

Islande: OK, who else wants to speak, nobody else?

Jackly: They also say you can squeeze the midsection to see if there are any secretions.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Well, you can look to see if the goat has been beat up in any way. If all of its ribs are showing that's not a goat you want to buy in the market. That's a ruined goat.

Jackly: Ahh, is there a veterinarian in the area?

Audience: Yes

Islande: How many veterinarians are there?

#8 (Daye, M, 58, 4, Farmer, 4th): There are 2. One is completing his/her training.

Islande: Do you take your livestock to their house when they are sick?

Audience: Yes

Islande: So they can get vaccines?

Audience:

Yes

##Breeding

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3, you get an advantage maybe in a goat that has already had babies, sometimes you can buy one that is healthy. Sometimes you can buy one that has already been bred in the market [it was opportunistically bred while tethered or corralled and waiting to be sold], or you might have it two or three weeks and you breed it quickly. But the offspring, you have to raise it, so the profit comes later, so it all depends on how much money you have already.

Islande: So if you buy a grown one there's no profit to be made if it's infertile.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, you have to choose one that is not infertile, an infertile one you can spot.

Islande: What form does it have, I need to know, number 13 was telling me about that.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): So, a goat that is not able to have babies, you will see that it is closed up behind, it has become very small, and the goat has gotten meatier. It looks like a goat that has gotten fat, so you don't look for a goat like that.

Islande: Number 13

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Number 13, even if it is hungry a goat like that will never get skinny.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, it will stay full because it has fat.

Islande: But let me ask, how will I know it has not simply been fattened up, and that the fat on it is because it is infertile?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Well, if they're fattening it up to sell it's not a goat to keep for breeding any more.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Number 1.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It's...

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): You can also see in its udders, because they'll never be the same as those of a goat that's still capable of kidding. Its udders will become dry, they'll have no milk at all any more.

Islande: Ok, that interests me, in the case of a goat that is young but naturally can't have babies, how are you going to see that?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): By its age.

Islande: That's number 3, by its age, number 3. I'm going to have to cut you off number 3 because I see you're speaking and the other people aren't (laughter).

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): According to its age.

Islande: So, number 3, you'll look at the size it has reached without having babies.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): If it hasn't started, it won't be having any babies at all.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4, it might have been bred. In about 10 percent of cases it won't get pregnant. It found another goat bigger than itself, it bred, but it's not pregnant. That means that it tightly closed up, it can't get pregnant, that means its mature but it won't produce.

Islande: But will you, if you go to the market will you be able to determine, even if the goat is young, that it won't be able to have babies, it won't yield a profit, so you shouldn't buy it?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Yes, you'll be able to see that because it hasn't been with another goat.

Islande: Will I be able to see that in the market?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): You'll be able to spot that goat.

Islande: How will you do that?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Sometimes a goat like that will show up in the market and you'll be able to tell by experience. You'll say that goat, that goat...

Islande: Mmm hmm, but I'll need experience.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): According to its size, its size will confirm that the goat will not have offspring. You'll see there's no advantage in it, you won't buy it. I'll say, I'm not buying that goat to raise.

Islande: OK, I would like to go to the market because I want to see a goat to be able to say that goat's not...

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Yes, you can, you will be able to, you'll see it.

Islande: OK, good, you haven't told me what experience I'll need to see it.

Public (Lafem): No, we mean somebody who knows it, number 13, it's in the training, it's in training you've had with goats that you'll be able to spot it.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): You need somebody who knows to show you, to tell you that a particular goat won't be able to have babies.

Islande: So, that's what I need you to tell me. On my own, I won't be able to tell, I need you to tell me what to look for. How will I be able to see that this little, young goat will never be able to breed, so I shouldn't buy it in the market.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Some people talk about their little udders. Goats have two, its little udders grow side by side. I've noticed it's not exact, there are some goats that breed rapidly, they have kids following them, they get scared but continue to produce... they raise all their young but some people say because they're nursing they'll fail you. But I've seen that's not really the way it is.

Islande: No, because others say when they have little udders they'll have babies.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, small udders do not prevent goats from producing offspring, and they don't keep them from having good offspring.

Islande: How do you make a goat attract a mate? How do you do that?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Make it attract a mate?

Islande: How do you make a goat attract a mate, because they're tied up, right?

Public (Lafem): Yes.

Islande: Number 8.

#8 : Number 8, when a goat calls out, because I had a goat that was crying out, it was crying and I asked myself what was the matter with it, and I put a male goat with it and she led it to a place to mate (laughter), and then it raised its tail, too. It raised its tail and cried out, you could tell it was calling a mate.

Islande: Why didn't you go off with the goat (laughter), because you brought in a male?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): No, no, I'm not going!

Islande: Why? But why? [More laughter]

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): No, I'm not going, truly, that's a man's job, not a woman's.

Islande: Ah, there's a place for men in raising livestock, and a place for women?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): No, I keep goats, but might not be able to go...

Islande: Ah, OK.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Yes, that means that if my husband is not around and the goats need to be led to another place I can't do it.

##Branding and Recognition

Islande: Hmm, OK. (silence) And what do you do to recognize which goat is yours?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8, you distinguish according to the goat's markings.

Islande: The goat's markings?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Yes, we tie them in our own pastures, we don't go tie them in somebody else's land. We manage the goat.

Islande: When you're moving your goats, do you ever run into a neighbor who's moving their goats, and you're walking together and the goats get their feet tangled up?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8, when our goat passes behind theirs, we yell to them and grab ours.

Islande: OK.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): It's number 13.

Islande: Mmm hmm.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): I follow behind, and I look for a separate area to put mine.

Islande: Hum hum

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): And then I have someone who comes with me.

Islande: Mmm hmm.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): I lead my team, he leads his. For example, the other guy might go ahead of me, and then when mine get to the crossroads, his will go their way and mine will go theirs. Everybody takes their own way home.

Islande: OK but if you just bought a goat do you think it would go the right way?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): No, not yet. It won't yet know the way, it will follow the leader, the ones that were already there.

Islande: Ah, ah.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Yes.

Islande: OK, but do you ever lose a goat?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Not often. It happens, but not often. One might break its cord, or get stolen.

Islande: Do you do anything to prevent that ? To be able to recognize your goats if they get stolen?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4. Some goats, they might have a cord around its head, and you know what cord you put on it. And then some goats look alike, so you have to know the markings, even if it looks like another you have to be able to tell them apart. There are goats with a star on them, if they're black they have a white mark, and the white ones might have a black star. That means you have something to determine which one is yours.

Islande: OK, but you don't brand them, put a brand on them?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8, they brand cattle, but not goats or pigs, sheep, we don't brand those animals yet.

Islande: Hmm, somebody told me just now that to brand a goat they cut a little piece of its ear, do you do that?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3, a lot of goats have a cut ear, but they don't have a brand they could use in court. A person might catch a thief with the goat, and the thief can say he cut the goat's ear. He can say he's the one who cut the goat's ear, because it was sick.

Islande: But you can make a round cut, another can make a square cut, and another a rectangle. But you say it's not something that's exact.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): It's not a type of identification that's exact.

Islande: In that case...

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The goat, goats know their owners well. Me, I had a goat in a field and a thief took it, the thief took it away and confined it, put it in a building with a child watching over it. He gave the child money, and said he went and bought it for him. The goat broke its cord and escaped. I was investigating what happened and somebody in the market told me all that. I went to check it out, I went after the goat. When I got there, I called out for the owner of the house, and the goat answered me. As soon as the goat heard my voice, it started chewing its cord so it could come join me. There was a woman in the kitchen, she said, "Look how that goat responds to a person! That must be its master." She ran and asked me what was the matter. I said I lost a goat, they said there was a thief they caught here and I came to see if it's the one. She led the way, and as soon as I arrived the goat jumped on me. The animal knew its master. Once it's accustomed to its owner, to following him, it looks for him, if it arrives in a place it can pick out its owner.

Jackly: OK, is there anybody else who would like to say something?

Public (Lafem): I already said something.

Jackly: Has everybody said something? [...] OK. Around here do you brand goats or mark them? Did they already ask that question?

Public (Lafem): It's as we were saying, we don't have a way to brand goats exactly because that would require a number.

Jackly: OK, is there a place where they cut the goat's ear?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Cutting the ears is not a hard and fast means of identification, again, because a thief can just say he's the one who cut the goat's ear. You can't lay claim to a goat based on a cut in its ear.

Islande: OK, when you buy the goat in the market how do you avoid mix-ups? How do you recognize your goat?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): My own goat?

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): How I recognize it.

Islande: The goat you bought in the market.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Ah, sometimes we take a little paper, or tie a little cord around its neck.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): I mean, to identify it as yours. When you don't do that and then right there you exchange it or sell it to a friend, you might not have time to put a mark on it.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): But the ones you keep, when they're in the market you have to have a way to identify it as yours.

Islande: What else do I need to know?

Islande: OK, what I need to know is when you are done, is there a little structure in the market where you can put every goat you buy in the market, or do you tie them? What do you do?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): No, you don't have a little house...

Islande: Because each goat you buy you put it in it, or do you tie them? What do you do?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): No, you don't have a little house.

Islande: Each goat, when you've bought it, do you take it with you when you go to buy another?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): You buy the goat in the market or if you're selling in the market you can tie it in the back of the market, but if you are going to be going around in the market you take it with you, all of them, and then you make a little pen and tie all of the goats inside it.

Islande: How you do distinguish between the goats when they are all together?

Audience: We remember. And it's written on their title.

#4 (Daye, F, 49, 4, Farmer, 5th): Yes, the title has a description of the goat's coloring.

Islande: Ahh, I see...but is there any confusion in identifying the goats?

Audience: No, we know what to look for, how to tell them apart.

#8 (Daye, M, 58, 4, Farmer, 4th): We try to organize the goats after buying them so they don't get mixed up with other herders' goats.

Islande: But if 3 of you go to the market and each buy 4 or 5 goats, then you have some 15 goats [to keep track of]?

Audience: Yes

Islande: So even if you tie them in the same place, they aren't mixed together?

Audience: No, they don't mix.

#4 (Daye, F, 49, 4, Farmer, 5th): They are different too. Not all are the same size or price.

#3 (Daye, M, 62, 9, Farmer, 2nd): Or color.

#8 (Daye, M, 58, 4, Farmer, 4th): After you purchase them, you tie them together with a rope. Each of us has our own way of tying the rope, so that helps us recognize our goats.

6. Selling Goats

##Reasons for Selling Goats

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): We keep goats as a sort of bank account. You might need money to pay for your children's school, or some other thing, and you can sell a goat to pay tuition. But you can't sell them all, you have to keep enough to breed more so you'll always have one when you need it.

Islande: Mmm hmm.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Number 4, goats and school are intertwined. If you have a goat that's ready to sell, or even if it's not ready, you can take it and pay for school.

Islande: So, your goats are for paying for school?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes. But you also use them in agriculture.

Islande: You use goats in agriculture?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We use goats for agriculture, you see, because it's a goat you sell so you can buy rum [to give to laborers], to pay day laborers [to prepare the soil], and when you need to harvest your crops.

Islande: OK.

#3 : If God grants you a good harvest you can get two more goats.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Number 1.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): So every family can get enough food to eat.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): And you might have someone in your household who's sick and needs a doctor, so you need money for their care. You sell a goat and you have money to care for them.

Islande: You were saying something, Jackly? Jackly you were saying something?

Jackly: Hmm, me? No.

Islande: OK, does anyone have anything to add? OK, if I'm understanding, goats are a foundation of the local economy.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, important.

Islande: If I'm hearing everyone... you were saying something, number 3?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, we're saying goats are very important, because it's not easy for a poor person to keep goats.

Islande: Mmm hmm.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Because he has to keep them through every misstep, everywhere.

Islande: Do goat breeders buy goats?

#8 (Daye, M, 58, 4, Farmer, 4th): Breeders? Yes, sometimes we need to replenish our herd. And bring in new stock to breed. Goats are one of the most valuable resources to rural residents. We count on them to send our children to school and conduct other business.

##Choosing the Right Goat

Jackly: OK, so for example if you go to a market to buy a goat, what do you look for that will let you say you've found a goat that's good as livestock, meaning it's a goat you can raise... what qualities should it have? Or what do you look for in a goat as an animal you can buy and keep as livestock?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3, you should choose a good goat based on looking at its four hooves.

Jackly: OK, its four hooves.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You can look at the goat's form, its eyes, horns, teeth, there are plenty of things to look at when you're choosing a goat to raise.

Jackly: OK, so you can say it's a good breed, or a goat you can raise, or... ?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You can say it's a goat you can raise but it's only when it starts breeding that you'll know whether it's good, a truly good breed.

Jackly: Ah, OK, because...

Islande: Is there any other remark, like when you look at the udders?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You check them out to see whether they are good. But when you talk about breastfeeding, I put it to the test with two goats. And even if it has two small udders and two large ones, it might have three babies and raise all three.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It bears twins and it raises both, with no problem. It's pigs that are more likely to have issues.

Islande: OK, does anybody have anything more to say?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Well, number 1, as our friend just said, we have goats that have 3, 4 udders.

Islande: Mmm hmm.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): And imagine, you are convinced the goat can be a good breed, and then you are going to keep it. In the future the way it is, it's behavior, its physical attributes, that is when you can really tell, you see that it really is a good breed of goat.

Islande: And if you are going to buy a goat in the market, what kind of goat do you buy to raise?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Well, if you are looking to buy a goat in the market, they can have several traits, but usually you'll be looking to buy a female, and like with a cow it might already have birthed, and maybe for example you can find some friends who can help you confirm it's a good goat and you buy it, and then you raise it, and that is when you can really confirm that you can breed it, you can keep it and it can give you a good breed of goats.

Islande: Let me ask the question again another way. What observation can you make about a goat to say whether it will be good for breeding if you are buying one in the market?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8, if the goat is healthy, you can tell if it is healthy, and there are ways to look at it to make sure it's not too old. Then you can go ahead and buy the goat.

Islande: OK, does anyone else have anything to say?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Well, number 13, although our friend has already given a lot of information about his ways because, he's behind you...

Islande: Mmm hmm...

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): And the other who was here also provided much information about how you can choose a good goat.

Islande: OK, now, if I'm buying a goat to resell, what kind of goat should I buy to resell ?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Well, the goat you'll buy to resell first of all you have to identify the goat. If you are going into the middle of the market with it, is it sick ? And if it's sick it might not be able to walk that far, maybe you'll buy it in the market and then get it when you go. The goat in the market has to be in good shape, and not sick. And then, you're looking for a goat you can make a profit on. If you buy it for 1000 gourdes you figure you can make 200 gourdes on it, or 250 gourdes, or even 300. That means you need to find a goat you can get something out of, that's the one you buy.

Islande: In that case, if you're buying a goat in the market to breed, do you get a little one, or a big one, or a young one?

Public (Lafem): No, we take a young one, it depends on how much money you have with you.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3, it depends on how much money you have on you. You might find a goat you like in the market but you can't take it to sell because it's not going to be profitable for you to sell a goat like that, so you have to buy a small one, you choose a small one that looks like it will grow into a good goat.

Islande: OK, but the advantage, what's the advantage? I don't know what the benefit is. Buy a tiny one, I mean buy one that's still following its mother. Do you buy a small one that has not kidded yet, or one that's already had babies? Which is more advantageous for someone looking to buy a goat?

Islande: Now, the first thing I would like to ask you is, what type of goats do you purchase? What do you look for in a goat that you are to breed? What qualities are most important?

#4 (Daye, F, 49, 4, Farmer, 5th): We purchase the best we can find.

Islande: What type of goat? Small? Young? Large?

#4 (Daye, F, 49, 4, Farmer, 5th): Yes, we buy young female goats that have potential.

Islande: What about you, sir?

#3 (Daye, M, 62, 9, Farmer, 2nd): When we go to the market, we examine the goats for sale. We look at their teets to project how they will develop and benefit us. We don't just buy any goat. We look for goat breeds that can bare multiple offspring, such as "*ras 3*"...

Islande: How do you know if it is a *ras 3* goat? You said you examine the teets, what do you look for?

#3 (Daye, M, 62, 9, Farmer, 2nd): Well, we examine the mother: how many teets she has, how large they are...if you purchase a goat that only has 3 teets, then it its unlikely to ever have 3 children. She will have 1 or 2, but she doesn't have enough teets to feed 3 kids. Sometimes it takes time. The mother will have a single kid during her first birth, 2 during her second birth and 3 during her third birth. But it also depends on the breed of goat.

#12 (Daye, M, 48, 5, Farmer, 6th): Whenever I purchase a goat, I try to find one that is good looking. I look at its coat. If the coat is curly, smooth and reddish, then you know that it is a quality goat. The size of the waist is important too. You want a goat with a large waist so the quarters can develop a lot of meat.

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes, the appearance of the goat is important. Beautiful goats sell fast at the market. You don't want to buy any runt, or else you risk losing your money. For example, if you purchase a goat for 400 *dola* (2,000 HTG) or 500 *dola* (2,500 HTG), you have to sell it for 600-700 *dola* (3,000 – 3,500 HTG) in order to make a profit on your investment.

Islande: Ok. What about you, number 7? You haven't spoken yet.

#7 (Daye, M, 46, 2, Farmer, 0): I once purchased a goat at the market that only had 2 teets. A female goat. When the time came for it to reproduce it's stomach swelled. It bore 3 kids, even though it only had 2 teets. So I don't think it's the number of teets as much as the breed that determines children...

Islande: So the breed is more important than the number of teets?

(Several people respond simultaneously)

#7 (Daye, M, 46, 2, Farmer, 0): When it comes to bearing young.

#4 (Daye, F, 49, 4, Farmer, 5th): When you select a goat to breed, you look for a goat that is standing up. You don't want a goat is laying down [at the market].

Islande: Why?

#4 (Daye, F, 49, 4, Farmer, 5th): Because that goat will be difficult to sell.

Islande: Difficult to sell?

#4 (Daye, F, 49, 4, Farmer, 5th): Yes, it's not a good sign if the goat is laying down on the ground. A goat that is standing will grow big and gain value.

Islande: Does that mean that it is sick?

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes

Islande: Does it ever happen that you buy a goat, but it dies before you can resell it?

#4 (Daye, F, 49, 4, Farmer, 5th): Sure.

#3 (Daye, M, 62, 9, Farmer, 2nd): It happens from time to time, but not often.

Islande: What causes the goat to die [prematurely]?

#3 (Daye, M, 62, 9, Farmer, 2nd): Many things. It could die during the journey home from the market.

Islande: Ok, I want to ask you another question that you should all be able to respond to. If you buy 10 goats, how many do you resell? And how many do you keep to breed?

#3 (Daye, M, 62, 9, Farmer, 2nd): You wouldn't just buy any 10 goats. You look for the ones that have promise, that will put on weight. You don't want a puny goat that has no future...

##The Market

Islande: OK, what market do you go to around here, to buy or sell goats? Where do you buy goats to resell?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): We buy in Previle, we sell in Lyon. We sell in Previle and we buy elsewhere. We sell in Previle... we buy in Milfo and we sell in Previle.

Public (Lafem): You can buy in Previle and then turn there toward Antou.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You can buy it in the market...

Islande: But you never return from Milfo with goats? You don't go to buy and sell goats?

Public (Lafem): Yes, yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, and transport is 500 to go up. We never need 210 more to go. *

Islande: When you go to sell goats in Milfò, where do you buy those goats?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We buy anywhere. We can even buy them right there in Milfò.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): You can even buy in Milfò, too.

Islande: Where do goats sell at the highest prices?

Jackly: And cheapest.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Mafran.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): You can say Mafran, Lyon.

Islande: Where do they sell cheapest?

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Sometimes we...

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The little market on the mountain.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Little markets up on the mountain, and also Previle, Milfò.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Dayè, Previle, Milfò.

Islande: Mmm hmm, in those markets they're cheapest.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Kastiyon, that's farther away.

Islande: You go buy in Kastiyon, too?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes.

#13 (Lafem, Male, 45 years old, 4, Farmer, 6th): Me, I don't go there.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): There are guys who don't go.

Public (Lafem): But some do.

Islande: Some do go?

Public (Lafem): Yes.

Islande: The way we get to Kastiyon, we pass through the mountain up high.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We go through Bwa Goch.

Islande: And then we climb the mountain.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We cross like that. We don't go all the way to Bwa Goch, we reach Seyèt.

Islande: Yes, yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Once you pass the Catholic church, Seyèt is where it is.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You cross the water, there's water on the ground, you cross and go up where the water rises and then you climb the mountain and go all the way to Kastiyon.

Islande: You walk a long way. For an animal to leave Kastiyon to get here it walks a long way!

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, but....

Islande: How do you carry, what do you do to get the animals here?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): If you buy, say, 10 goats, you lead them back, or drive them ahead of you....

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): You buy solid goats.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): So they can walk fast.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Yes, you don't buy goats that are asleep on their feet. You buy solid goats that can walk.

Islande: Hmm.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): And then you lead, you lead two goats with a cord and the rest will follow them.

Islande: Do you take children with you to help lead the goats?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Yes, sometimes you bring children or friends with you.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You can't find children when the market is on a school day.

Islande: Mmm hmm.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Sometimes you have a friend who's doing the same thing, and you go together, as a team.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You might have 20 goats together, 15 goats between you.

Islande: All together?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Two men together, one leads in front and the other drives them from behind.

Islande: Hmm, OK, that way when you go to another market you lead them. You never put them on another animal to transport them?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): No.

Islande: Around here, do you buy goats, do you sell goats?

Public (Lafem): Yes, yes.

Islande: But you haven't spoken at all about markets around here?

Public (Lafem): This little market, the market here, its the Previle market where we sell goats.

Islande: Ah, OK.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): This is La Ferme.

Islande: As goat herders and breeders, where do you buy and resell goats?

#3 (Daye, M, 62, 9, Farmer, 2nd): We buy them in Milfò and sell them in Mafran. Sometimes we sell them here in Dayè too, or in Aleyon.

Islande: Where do you buy them?

Audience: Milfò

#3 (Daye, M, 62, 9, Farmer, 2nd): Sometimes we buy goats here in Dayè, but mostly we buy them in Milfò at the Monday market. We resell them at the Wednesday and Friday markets in Mafran. What we don't sell, we bring back to Dayè to wait until the next market day. You don't sell a lot of goats in Dayè because almost everyone raises their own goats.

#4 (Daye, F, 49, 4, Farmer, 5th): We also go to Leyon, Previle or Letre to buy and sell goats. Once they start to put on girth, you can sell them.

#3 (Daye, M, 62, 9, Farmer, 2nd): It depends on where the price is best. Sometimes we'll check the price at several markets before purchasing a goat, including Milfo and Mafran. That way we maximize our capital. If the merchants don't have money, we'll sell them a goat on credit. We collect the money after they have butchered the goat and sold all of the meat at the Wednesday market.

Islande: How many goats can you purchase in day?

#3 (Daye, M, 62, 9, Farmer, 2nd): 10, 15 goats.

Islande: And how many do you take to the market at a time?

#3 (Daye, M, 62, 9, Farmer, 2nd): Sometimes as many as 10, 15.

Islande : What's the least amount of goats you take?

#3 (Daye, M, 62, 9, Farmer, 2nd): It depends on the chord. You tie them so they stay together.

Islande : How many?

#3 (Daye, M, 62, 9, Farmer, 2nd): It depends. Some people have more than others. Sometimes there's not much to buy in the market, so you buy as many you can find: 1, 2 or 5 goats.

Islande: How do you transport the goats [to/from market]? Do other people help you?

#8 (Daye, M, 58, 4, Farmer, 4th): We do it as a group. You need multiple people to herd the goats across the river.

Islande: Do you encounter any problems when you buy or resell goats?

#8 (Daye, M, 58, 4, Farmer, 4th): Yes

Islande: Among herders, I mean. Do you ever have disagreements?

#8 (Daye, M, 58, 4, Farmer, 4th): Sure, there can be problems. Sometimes we lose money reselling goats because there is not a strong market for goats or meat.

#7 (Daye, M, 46, 2, Farmer, 0): Competition between herders can be a problem as well. Sometimes herders buy goats on the road before they can reach the market [speaker uses the term 'dezod' to describe this practice, indicating or at least suggesting that it is illegal]. Or they will steal goats from your herd and sell them under false papers. But if you are caught, then you are banished.

Islande: Banished?

#7 (Daye, M, 46, 2, Farmer, 0): They run away. Or they might lose their goats and have to pay for them again.

Islande: OK, I have a follow up question. Does it ever happen that two herders try to buy the same goat? Does that ever create conflict?

Audience: Yes, we have that problem sometimes...

#4 (Daye, F, 49, 4, Farmer, 5th): For example, I might offer 400 *dola* (2,000 HTG) for a goat, but another herder comes along and buys it for 500 *dola* (2,500 HTG). We would have something to argue about.

#8 (Daye, M, 58, 4, Farmer, 4th): Well, that wouldn't necessarily lead to a fight. The person who offers more money has the right to buy the goat.

Audience: (Agreement)

#8 (Daye, M, 58, 4, Farmer, 4th): If a herder sees an opportunity to make profit on a goat, then they will buy it. The goat may not bring in a profit at that purchase price, but It's their risk to take.

Islande: How do you manage buying multiple goats on market day?

#3 (Daye, M, 62, 9, Farmer, 2nd): There is a place, like a depot, where they assemble goats to sell.

Islande: When you say a depot, are you talking about a building?

Audience: No it's not a building...

#3 (Daye, M, 62, 9, Farmer, 2nd): You see, the market is divided into different sections. There is a section for animals. After buying goats, you look for a place to tie them until they are ready to be transported.

Islande: Like a post?

#8 (Daye, M, 58, 4, Farmer, 4th): Yes, after you buy a number of goats, you tie them to a post.

#3 (Daye, M, 62, 9, Farmer, 2nd): All of us goat breeders are like brothers, colleagues, so we look out for each other. If someone's goat wanders off, then you call them or corral it yourself.

Islande: Ok. Does everyone have a place at the market?

Audience: No

#4 (Daye, F, 49, 4, Farmer, 5th): You look for a free space to tie your goat. Often we tie them together with other herders.

Islande: What about to the markets that are further away?

#4 (Daye, F, 49, 4, Farmer, 5th): If it's too far, then just my husband and I go.

#3 (Daye, M, 62, 9, Farmer, 2nd): In that case, us goat breeders look out for each other. Like I said earlier, we are like family. For example, I'll buy 10 goats, my colleague buy 10 goats; and we take turns looking after each others purchases. Then we return with them together.

#3 (Daye, M, 62, 9, Farmer, 2nd): The goats all follow each other on the road home. We keep track of who each goat belongs to.

#7 (Daye, M, 46, 2, Farmer, 0): We all know which goats are ours. When we return to [Daye], we divide them to take to our homes.

##Legal Papers

Islande: Do you ever have any trouble purchasing goats? For example, does the government ever confront you for not having the right papers?

#3 (Daye, M, 62, 9, Farmer, 2nd): Naturally. You need to have papers for all the goats you purchase: if you purchase 1 goat or 10 goats. When you reach Mafran they will demand to see the authorization for all of your goats. You have to provide them with the correct documentation.

Islande: What if you lose [a goat]?

#3 (Daye, M, 62, 9, Farmer, 2nd): It happens. You can't stake and tie all of your goats. So you tie some and let the others graze freely nearby. But sometimes those goats wonder and you lose them in the woods.

Islande: How much does it cost to register a goat and get papers/title ("*lesse passe*")?

8: 50 HTG per title

Islande: Is it the same price for all goats?

#8 (Daye, M, 58, 4, Farmer, 4th): Yes

#3 (Daye, M, 62, 9, Farmer, 2nd): At least for goats it's the same price

Islande: Who pays for the title during a sale? The buyer or the seller?

Unidentified: The person selling the goat

Islande: And they factor that into the sale price of the goat?

Audience: Yes

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Number 3, I don't need anything else as long as I have a paper for each goat.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The paper identifies my goat as mine, and identifying marks are listed on the paper.

##Prices

Islande: When is goat meat most expensive in the market? In what season is goat most expensive in the market?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): In December.

Islande: In December?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): We've arrived at a time, business is slow, animals are cheaper, animals are cheap again.

Islande: Yes, there's a time when it's more expensive, that always happens.

Public (Lafem): There's a time, in May, July.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When the harvest is ready.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The price...

Islande: Goes up a little?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): There are children who have just made a little harvest, they need an animal to raise.

Islande: OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When the harvest is ready, I'm saying.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Yes when the harvest is ready.

Islande: OK, that's when things are lowest?

Public (Lafem): Around March.

Islande: When it's....

Public (Lafem): Around March.

Islande: In March?

Public (Lafem): When March comes, when...

Islande: In the calm period?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When the beans have been planted, around then you can see the beans flowering, that's when animal prices go down a little.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Number 13.

Islande: That's when people who raise animals might go buy more.

Public (Lafem): Yes, yes, that's the time.

Islande: But since everyone's going lower?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Especially when school opens, the parents are burdened. Because they know the children must go to school, so you go to the market and take whatever little money you can get. The children have to go to school, so you get by with whatever you have.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): You asked a question a bit ago, you asked how much it costs to buy a goat around here, but those goats are expensive. I puny little goat costs 900 dollars (4500 gourdes), for a tiny goat. But that doesn't mean goats are a big deal.

Islande: Yes. Nobody wants to say anything else?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Well, I'd simply like to thank you.

Islande: Mmm hmm.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): For this nice meeting.

Jackly: Mmm hmm. You may speak.

Islande: When is the best time to buy goats on the market? When is the price lowest?

#8 (Daye, M, 58, 4, Farmer, 4th): At the start of the school year in September is best. Or during the exam period in June. Lots of people are selling goats to raise money for [school fees]. You can buy goats the rest of the year, but they are expensive.

#3 (Daye, M, 62, 9, Farmer, 2nd): Right now goats are very very expensive.

Islande: Why is that?

#3 (Daye, M, 62, 9, Farmer, 2nd): There are many people looking to buy goats, so it drives the price up.

#8 (Daye, M, 58, 4, Farmer, 4th): Those people sold cows in December. Now they need goats. In December they were expensive, so they waited until now to buy goats. But the price has increased even more...

Audience: OK

(Moment of silence)

Islande: Let me ask you a personal question, why did you choose to be goat breeders?

#8 (Daye, M, 58, 4, Farmer, 4th): Well, what made us choose to become goat breeders is because . Everyone engages in some type of commerce. They make 50 HTG to pay for school for their child. We buy and resell goats to help our family in the same way.

Islande: Does anyone want to add something?

#3 (Daye, M, 62, 9, Farmer, 2nd): Raising and selling goats is our profession. You can make profit if you do it well, make 500 *dola* (2,500 HTG) in profit. You use that money to send your child to school, buy them shoes, or to replenish your herd.

#7 (Daye, M, 46, 2, Farmer, 0): You see, after you buy a goat and papers for 400 *dola* (2,000 HTG). You can sell it for a profit of 50 or 80 *dola* (250 or 450 HTG).

#3 (Daye, M, 62, 9, Farmer, 2nd): It won't make you a fortune, but it provides a living. You can turn around and sell a goat that you buy for 400 *dola* (2,000 HTG) for 420, 430 *dola* (2,100, 2150 HTG) to someone in the community. But if you take it to the market you can sell it for more. A goat can sell for 500 *dola* (2,500 HTG) at the market in Milfò. 530 *dola* (2,650 HTG) if it is good specimen.

Islande : 530 dola?

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes, because the goat has the potential to grow big and bare children.

#4 (Daye, F, 49, 4, Farmer, 5th): For example, I might offer 400 *dola* (2,000 HTG) for a goat, but another herder comes along and buys it for 500 *dola* (2,500 HTG). We would have something to argue about.

#8 (Daye, M, 58, 4, Farmer, 4th): Well, that wouldn't necessarily lead to a fight. The person who offers more money has the right to buy the goat.

7. Uses of Goats

##Milking

Islande: When is goat meat most expensive in the market? In what season is goat most expensive in the market?

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Islande: In December?

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Islande: Yes, there's a time when it's more expensive, that always happens.

Public (Lafem): There's a time, in May, July.

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Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The price...

Islande: Goes up a little?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): There are children who have just made a little harvest, they need an animal to raise.

Islande: OK.

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Islande: OK, that's when things are lowest?

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Islande: That's when people who raise animals might go buy more.

Public (Lafem): Yes, yes, that's the time.

Islande: But since everyone's going lower?

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): Especially when school opens, the parents are burdened. Because they know the children must go to school, so you go to the market and take whatever little money you can get. The children have to go to school, so you get by with whatever you have.

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Islande: Yes. Nobody wants to say anything else?

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Islande: Mmm hmm.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): For this nice meeting.

Jackly: Mmm hmm. You may speak.

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Islande: Why is that?

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#8 (Daye, M, 58, 4, Farmer, 4th): Those people sold cows in December. Now they need goats. In December they were expensive, so they waited until now to buy goats. But the price has increased even more...

Audience: OK

(Moment of silence)

Islande: Let me ask you a personal question, why did you choose to be goat breeders?

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#8 (Daye, M, 58, 4, Farmer, 4th): Well, that wouldn't necessarily lead to a fight. The person who offers more money has the right to buy the goat.

##Slaughtering Goats

Islande: OK, does anybody here kill goats?

Public (Lafem): Kill a goat under what conditions?

Islande: No, kill a goat. Who slaughters goats?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Ha! A butcher.

Jackly: The butcher?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Butcher?

Islande: Hmm!

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, there's no butcher.

Islande: Who is the person who slaughters goats for food in your household?

Public (Lafem): Oh! Yes.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): I kill the goats at my house.

Islande: Oh! And who is the person who slaughters the goats to eat. You do?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes.

Islande: Who else here slaughters goats?

Public (Lafem): Yes.

Islande: Do you slaughter goats for your neighbors, or other people?

Public (Lafem): No, I slaughter my own goats.

Islande: OK, does anybody call in somebody else to come slaughter your goats for you?

Public (Lafem): I don't call in other people, I have people who can slaughter them in my household.

Islande: In the area, how do you hear when somebody's slaughtering a goat?

Jackly: When they kill a goat, what do they give the person who does it?

Islande: How much money do they give the person, or what do they give the person?

Jackly: Or what do they give?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When, for example, when they give birth in the countryside, the husband has to have a goat so he can take care of the wife, to have money for the baby. We don't know about that.

Jackly: What?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It's up to the husband to have a goat to slaughter so he can take care of his wife while she's confined in bed.

Public (Lafem): No, what we need... to see the goat...

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Do people call you to come kill a goat.

Islande: Mmm hmm!

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): There are people who have someone come to slaughter a goat, and then give them a piece of the animal.

Islande: Mmm hmm!

Jackly: OK.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): As payment.

Jackly: As payment.

Islande: As compensation. OK, is there another...

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): After that, you might get a little something.

Islande: Like what?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Another little piece of meat, like the neck, to lift my spirits.

Islande: Mmm hmm!

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): And then after that they give me another little piece. (laughter)

Jackly: OK.

Islande: But they don't pay them, they give them the neck?

Public (Lafem): Yes. They don't give them money.

Jackly: But a goat's neck, how much do those sell for around here?

Islande: They don't sell them in that case?

Public (Lafem): They can, if it's part of the little bit of meat you get. (laughter)

Islande: So, let me say something. If the person slaughters two goats, do they get two necks?

Public (Lafem): No, they give him the whole neck (laughter). They split it and give him one side.

Islande: Ah, they don't give him the whole neck?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): They give him a piece of it.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, they don't give him the whole neck.

Jackly: There are places where they give you the neck.

Islande: Are there places where they give the whole neck, instead of a piece?

Jackly: If the person kills 10 goats he gets 10 necks (laughter). That's the butcher that does that.

Islande: Number 7 is speaking, let him speak.

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): If you call someone to come do you a favor, you might not know how to kill an animal, you might call someone to come and slaughter it for you. It's a favor they're doing for your household.

Islande: OK.

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): You can cut the neck and give them a piece of it.

Islande: Mmm hmm!

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): He takes it home. If you want to give him a little something more, you do.

Islande: OK.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): A butcher, when he does it for you it's not a favor. He comes to do a job, which means you give him the neck as payment.

Islande: Yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): The butcher doesn't get the neck. They cut it right here, like that, with the head and neck, that's the price for a young little goat.

#7 (Lafem, Male, 62 years old, 0, Farmer, 0): Yes, the head is the price of a little goat. They give the person a piece of meat, then the gentleman says he works for money, and they choose a little something to give the person so he'll go home.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): And if he steals some little bits of tripe he can take those, too. (laughter) That's the only job that is not detestable. Yes, it's the only thing that's not detestable about it.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Yes, there was one person who died around here.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): What happened?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): A commotion.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Ah, what did you get... ?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Well, the person who died...

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): The butcher would slaughter a pig in the morning, and then he'd watch, and send for a goat he had in his depot. He'd kill it, and then people would buy meat to cook at home. Things were beautiful in town, beautiful on the outskirts of town, but since Mathew came through everything has faded. That's something we can't forget.

Islande: Thanks for your response, but I don't think you follow my question. I want to know what proportion of the goats you keep to breed vs. the goats that you resell.

#8 (Daye, M, 58, 4, Farmer, 4th): At least 60% of the goats are raised for slaughter.

Islande: For meat?

#8 (Daye, M, 58, 4, Farmer, 4th): Yes. That means that we will keep 40% for breeding. 4 for breeding, 6 for slaughter. You only want to keep the best goats for breeding. But the numbers depend on the quality of goats available at the market.

Islande: Do any of you butcher goats?

#8 (Daye, M, 58, 4, Farmer, 4th): We butcher our own goats, but we don't do it professionally.

Islande: You don't butcher goats for other people?

Undentified respondent: No

#3 (Daye, M, 62, 9, Farmer, 2nd): I do sometimes...

Islande: How do they compensate you for this service?

#3 (Daye, M, 62, 9, Farmer, 2nd): They give me the goat's neck and some of the cooked meat.

Islande: They don't pay you [money]?

#3 (Daye, M, 62, 9, Farmer, 2nd): No, not exactly. But the neck meat is like money.

Islande: Do you ever sell the meat for money.

#3 (Daye, M, 62, 9, Farmer, 2nd): No

##Goat Meat

Islande: At what age is a goat ready to be slaughtered? At what age do you find a goat is prepared, how long?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Goat meat is good to eat at any age,.

Islande: Goat meat is going to be good to eat?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): At three months goat meat is good to eat, because it depends on the way the person cares for the goat in his pasture. There are goats that get to three months and they don't resemble a goat, there are goats at three months, you can go sell them for good money.

Islande: Between buying a goat, between eating a goat that's three months old and eating one that's nine months old, is there a difference?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No, but the one that has the most meat is better.

Islande: The meat is better?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes, it's more ripe.

Islande: Mmm hmm.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You'll get more meat.

Islande: Yes, it's better if its bigger. It's bigger.

Jackly: Is the meat tastier?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Yes.

Islande: Better, yes. Tastier.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): It's tastier.

Islande: And better...

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): Because there is more of it...

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): It's tastier because it's more mature.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When you take a young goat that's still nursing I know the meat is not good.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): No, because the goat is more...

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): The meat is tougher.

Islande: OK.

Jackly: Werewolves say the flesh of a child is tastier than an adult's [at reference to the Haitian *lougawou*, a werewolf or witch thought to eat children, and commonly blamed for illnesses]

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): My friends, there are goats that don't develop properly, goats that don't develop. You might kill a kid that is three months old, still following its mother, you slaughter a three-month-old goat and that's the meat you eat.

Jackly: OK.

Islande: In the La Ferme market, do you sell goats here, or slaughter them to sell here?

Public (Lafem): Yes, yes.

Islande: How many goats a week might you slaughter?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): There are...

Islande: Well, OK, when do you slaughter goats?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): They kill them Saturdays and Tuesdays, but there are days when they don't slaughter any.

Islande: Mmm hmm, they slaughter them at certain times.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): This is a good time for it. It's a good time, especially when there is breadfruit.

Islande: Mmm hmm, OK. When?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): People eat more of the meat in that season.

Islande: Hmm, you need meat to eat breadfruit?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Yes.

Islande: When is goat meat most expensive in the market? In what season is goat most expensive in the market?

Islande: Are there women who sell cooked food? Who cooks food to sell?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): That's for marketwomen to do, sell a big pot of rice.

Islande: Mmm hmm! Do they make sauce with it?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): They make their little herring sauce.

Islande: Mmm hmm. They don't make a sauce with goat?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): No.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): They don't have anything to make goat sauce with. (laughter)

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It won't work out well for the marketwoman.

Islande: The way 13 put it, that's something very important!

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): She would have to find people to come buy, who would pay her. People here won't come to buy.

Islande: OK.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): People will buy something for 10 gourdes, 15 gourdes.

Islande: Ah?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): For 20 gourdes. To get the fire going, cook food, you'd have to give the person 20 gourdes for them to put goat in it.

Islande: OK, is there a market around here where they slaughter goats to sell, to butcher and sell?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Cut up the meat? Yes.

Islande: Goat?

Public (Lafem): Yes, yes.

Islande: How many do they slaughter when there is a market?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8.

Islande: Hmm.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): There are two butchers, three sometimes when things are busy. Each kills one goat. There are three I know who slaughter.

Islande : Goats.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): But there are times when they don't all slaughter anything. Sometimes just two do. They slaughter goats, pigs. When there's business, but when there's no activity each might kill one.

Jackly: How often is there business? When you say there is business, when there's a holiday?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): When there's beans, or coffee. At harvest time.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Listen to her big words! Coffee?

Public (Lafem): And then in corn season.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Corn season.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): When Mathew hadn't yet taken, hadn't yet destroyed people's yams, when the season arrived when they were ready, number 4 speaking, when they were ready and people needed to buy food, meat was the only thing they bought.

Islande: Spices, salt.

Islande: Mmm hmm! How do you eat the goat?

Jackly: What are the different ways you can eat a goat?

Islande: Mmm hmm, what different ways.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Hmm.

Jackly: There are several ways a person can eat goat meat. What are the differences?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Number 8.

Islande: Mmm hmm!

Jackly: Fry it...

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): There are people who like boiled meat. It has more vitamins.

Jackly: Mmm hmm.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): There are people who fry meat. They don't fry it dry, they fry it. Me, I like boiled meat. It has more vitamins. It's better for me.

Jackly: That's two, OK, fried and boiled. Are there no other ways?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Me, I like my meat in a soup. I eat that or any fried meat, that's what I like.

Jackly: There are places where they say they make stew, ragout. Do they do that around here?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Yes.

Jackly: How do they make it? What's that thing they call kowosòl?

Public (Lafem): Kowosol, that's it.

#8 They don't cook that separately.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You close it when it's time to...

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): It has liquid in it. It's no joke. It's food for old people.

Islande: Do you ever put in dried meat, when they slaughter a goat, you don't want to wind up disliking it.

Jackly: Meat gets wasted.

Islande: Meat gets wasted, you discard it.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): My friend, the business of heating up meat, that's something that creates problems. When I was a baker, I could slaughter an animal and some wouldn't get cooked there. I had no refrigerator, I just put it in hot water over a fire, and put in the meat. In the end, you go into the bakery, he took two hours, and in the end you wrap it in whatever clothes you have, put it into a suitcase and travel wherever you want with it.

Jackly: Dry?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): When you cook it, it gets sweet. It doesn't go bad but sometimes they put it in the sun or the fire, so the rest of the animal would get wasted.

Jackly: Yes.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): That's why when an animal dies like that they get it, I cook my part and I don't eat anything else. I eat my part and when I'm done I stop.

(laughter)

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): Because last time somebody sent meat to the house, my friend, since we're not old people, and old people don't beat old people, you're not supposed to take it. They wouldn't give it to you. An animal is slaughtered and you give people some of the meat, and then you take the rest. It's not an illness the person has brought you!?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): When you have a freshly slaughtered animal it gives you vitamins. When the meat has been there a while it starts to emit an odor. Then it's not good any more. That meat has expired. Me, if I slaughter a goat, I kill it to use it. The tripe won't last, but I'll wash the goat meat well, bring out my big pot, spice my goat meat, boil it. Then I let it cool off, and put it in a cooking pot, and whenever I need it I take a little piece and I make food. If I just leave it it spoils. It starts to smell and it's not good any more.

Islande: How long can you leave it in the cooking pot?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): Until the meat has finished boiling and cooled off. After that you put it in a separate pot, if you don't have a refrigerator.

Islande: How long does it last? Will it last a week?

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): That depends. That depends.

Islande: Can it last a week, can it last three days?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): You should eat it the next day, God willing.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): If you're brave you can eat it over two days.

#13 (Lafem, Male, 37 years old, 4, Farmer, 9th): It cooks all day, and gets eaten.

#8 (Lafem, Female, 39 years old, 1, Farmer, 6th): You eat and eat!

Islande: Number 12.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Me, I cut it up and put it on the fire. Then I add salt, I put orange in it. Then I put the meat on the fire. I make the fire bigger. When you first start a fire you don't make the flames big.

Islande: Mmm hmm.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): If I have chicken I don't make a big fire. When you have meat and you don't make a big fire the meat might stay on a long time and get dried out. When you add leaves to the fire it gets smokey. The meat lingers on the fire and gets yellowed. That meat can stay in the house so there will be meat.

Jackly: OK.

Islande: That's the way they do it. When the meat has been dried, how do you cook it?

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): That meat isn't cooked. You don't boil it. You cook meat like that as if it were fresh.

Islande: Mmm hmm.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): You don't boil it. If you are making it like fresh meat you will soak it.

Islande: Mmm hmm.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): Put it under water and soak it, then it will get softer. Then wash it and put it on the fire. But it will have a salty taste still.

Islande: OK.

#12 (Lafem, Female, 56 years old, 4, Farmer, 4th): You can boil meat like that with congo beans, you put it under the beans.

Islande: The hurricane set you all back a lot! The last question I have is, what are the different ways that you prepare and eat goat here?

#3 (Daye, M, 62, 9, Farmer, 2nd): Usually a merchant butchers a goat at the market and sells it in cuts. Sometimes you slaughter a goat to celebrate a special occasion, like a baptism. That's how we eat goats here.

Islande: How do you prepare the meat? Do you fry it, boil it, etc.?

Audience: We fry it. We boil it.

#8 (Daye, M, 58, 4, Farmer, 4th): We eat the blood of the goat, we make a stew with the feet and bowels. That's very good with plantains, good plantains, and *miske* plantains. We also eat it fried or boiled with yams.

Islande: Do you ever salt and dry the meat?

Audience: Yes

#8 (Daye, M, 58, 4, Farmer, 4th): Yes, we smoke it and dry it on roof sheeting

Islande: How long does smoking preserve the meat?

#8 (Daye, M, 58, 4, Farmer, 4th): Smoked goat meat can last for around 3 months. Smoked beef last much longer, it doesn't spoil as easily.

Islande: You smoke it over the fire?

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes, we hang it over the fire smoke and then dry it under the sun on the roof.

#3 (Daye, M, 62, 9, Farmer, 2nd): Another advantage is that goats have more nutritious meat than pigs. Pork has a good taste in your mouth, but isn't as healthy. You'll see a lot of people refuse to eat pork, but everyone will eat goat.

#8 (Daye, M, 58, 4, Farmer, 4th): That's right. If you slaughter a goat, its meat will sell faster in the market than beef or pork.

#7 (Daye, M, 46, 2, Farmer, 0): Goat meat "carries" (*pote*) 12 months, while beef only "carries" for 6 months [a way of saying that goat meat has more value].

#3 (Daye, M, 62, 9, Farmer, 2nd): Beef can also be tough. You have to manage the cow so that isn't too tough.

Islande: What do you mean you say "goat meat carries for 12 months?"

#3 (Daye, M, 62, 9, Farmer, 2nd): It sells for more per gram than beef.

Islande: Ahh, ok. Would anyone else like to add anything?

##Horns, Hooves and Skin

Islande: OK, I guess I'm finished, but I have one last question. How do you eat goat meat? Before I ask how you eat goat, when they kill the goat, what do they do with the horns?

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): The horn?

Islande: Mmm hmm!

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): So, I know they grate the goat's head, and then they take off the horn and discard it. The skin around the horn and throw it away.

Islande: They leave the *klidoub* bone.

#4 (Lafem, Male, 62 years old, 8, Farmer, 6th): They take it out to boil it.

Islande: Mmm hmm! It's the same for everybody? I noticed you haven't answered.

Public (Lafem): Yes, yes, that's the way it is.

Islande: OK, and when they slaughter the goat, how do they kill it? Do they cut it or skin it?

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): They skin it. There are no more pigs. The same people who need the hide for drums, they skin their own. When that's done, they put it outside for somebody to buy it. (laughter)

Islande: And then they can't find one.

#3 (Lafem, Male, 65 years old, 6, Farmer, 9th): There's not just one society that does that. You have to cut it to get the hide, then to buy the hide from another one. It's a little something you get out of it, but I haven't. (laughter)

#8 (Daye, M, 58, 4, Farmer, 4th): We also harvest the hide to make things, like drums. It can be sold.

Islande: Ahh, you sell goat hides?

#8 (Daye, M, 58, 4, Farmer, 4th): Yes, goat hides to make drums.

#3 (Daye, M, 62, 9, Farmer, 2nd): We remove the hide when we butcher the goat. You scrape it clean and hang it [to dry].

Islande: If you slaughter 4 goats, how many do you use the hide for?

#3 (Daye, M, 62, 9, Farmer, 2nd): Maybe 1

Islande: You skin one and leave the other 3 hides?

#3 (Daye, M, 62, 9, Farmer, 2nd): Yes

Islande: Where do you sell the hides?

#8 (Daye, M, 58, 4, Farmer, 4th): There are people in the community that buy the hides to cover drums. The demand isn't great. Sometimes people take them to the markets in Leyon or Mafran to sell.

Islande: Do you do anything with the horns?

#8 (Daye, M, 58, 4, Farmer, 4th): No, we don't really use the horns.

#3 (Daye, M, 62, 9, Farmer, 2nd): Well, some places use them...

#4 (Daye, F, 49, 4, Farmer, 5th): Goats have two sets of horns. We throw away the set higher on their head, but we save the small horns.

#8 (Daye, M, 58, 4, Farmer, 4th): Like a little bone.

Islande: Bone *klidou*?

#3 (Daye, M, 62, 9, Farmer, 2nd): There are a couple places where they make handicrafts using the hide and horns, like pouches or cups.

Islande: Interesting. Where is this?

#3 (Daye, M, 62, 9, Farmer, 2nd): I have seen it done here. I've seen people with the horns...

Islande: You've seen the horns? Does anyone buy them for handicrafts or other uses?

Audience: No, they don't buy it.

#3 (Daye, M, 62, 9, Farmer, 2nd): Most people throw the horns away, so you could collect them for free if you wanted to do something with them.

TREES

Participants

Location: Guillotte

- #1: Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma
- #2: François Telcina, Female, 68 years-old, 4 children, farmer, No Education
- #3: Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade
- #10: Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma
- #15: Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma
- #16 : Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma
- #17: Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma
- #18: Leon Ademise, Female, 78 years-old, 2 Children, Trader, No Education
- #19: Leon Jasmine, Female, 22 years-old, 0 Children, Farmer, High School Diploma
- #20: Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma
- #26 Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade

Focus Group – Renal Bwa

- #2, Female, 68 years-old, 4 children, farmer, no education
- #5, Male, 63 years-old, 7 children, Farmer, no education
- #15, Female, 32 years-old, 2 Children, Trader, 6th Grade
- #16, Male, 51 years-old, 8 children, farmer
- #17, Male, 37 years-old, 3 children, Mason/carpenter, 10th grade
- #18, Male, 37 years-old, 2 children, teacher, high school
- #19, Male, 71 years-old, 9 children, farmer, no education
- #20, Male, 90 years-old, 4 Children, Farmer, no education
- #41, Female, 42 years-old, 4 Children, Trader, no education

8. Types of Trees

##Tree Types

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Number 3. Well, the trees that are most important for us are Mango trees. After that, Breadfruit, Coconut and Soursop – but recently Soursop fruit are spoiled by “*limon*” (type of fungus).

Tim: Ok. What about you? What other trees do you have?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Number 2. We had Custard Apple trees, but we lost them all after the hurricane.

Marco/Islande: What about now? What type of trees do you have most of?

Tim: I see that there are a few trees still standing. Yes you, please go ahead.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Number 26. We have Avocado trees, Lime trees, Orange, Grapefruit, a lot of almonds...we also have a lot of non-fruiting trees, such as Mesquite (*Prosopis Juliflora*), Log Wood (*Haematoxylum campechianum*), and many Cedar (*Cedrela odorata L.*). If you look around you will see other types of trees in the area: Apricot, Royal Palm (*Roystonea borinquena*)...there are lots of trees in the area, but the majority of them were destroyed. There are also Mahogany (*Swietenia mahagoni*) trees. And other trees whose names we don't know.

Tim: How do you use these different trees? For example, do you cover your house with a certain type of tree?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, we build our houses with several types of trees, but we don't cover our houses with them.

Tim: What wood? What types of trees?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Let's see, the trees we use for construction are Bitter Wood (*Simarouba spp.*), *woz* (*Samyda dodecandra Jacq.*) and Log Wood, which serves as pillars...there is another tree called Wild Sapodilla (*Sapotaceae* family) in the area that is used to build houses. We also use West Indian Laurel (*Calophyllum calaba L*) trees to build houses.

Tim: Ok, when you say you use them to build houses, what do you mean? Do you use them to make planks?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It depends on the tree. There are several trees we use to make pillars, since not all houses are made with iron rebar pillars. Some trees serve as beams for framing the roof. And there are others that make planks for the floor and door of the house.

Tim: Ok

Islande: Does anyone else have something to add? What about you, Number 20?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Hmm, what she said is true, but there were many more trees before. For example, we had many Lime trees, which are very useful. The hurricane came and destroyed all of the Lime trees, especially in my yard. Even if the tree survived, the harvest was ruined. And those that remain haven't produced again.

Tim: And what about other fruit? Like Mangoes?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): During hurricanes Mangoes fell to the ground... We still have Coconuts. Breadfruit Nuts (*Bocconia frutescens*) used to be an important tree crop for us, but now we hardly have any left.

Tim: Was the harvest lost for good? Or just in the short-term?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): We lost everything.

Tim: Ok. What about you? What other trees do you have?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Number 2. We had Custard Apple trees, but we lost them all after the hurricane.

Marco/Islande: What about now? What type of trees do you have most of?

Tim: I see that there are a few trees still standing. Yes you, please go ahead

Islande: Do you have Kenèp (*Melicoccus bijugatus*) here?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): In the month of July. We lost a lot to the hurricane...

Islande: How about Grapefruit?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): The hurricane destroyed them all.

#16: No it was the Natcom antennae.

Islande: The antennae? What makes you say that?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Since Natcom installed the antennae, the Grapefruit trees...

#16: Yes, as soon as the antennae arrived all of the Grapefruit fell and rotted.

Audience: And our Oranges. Even the Coffee was lost.

Tim: Coffee as well?

#16: Yes, we lost it all.

Tim: There's no more Coffee?

Audience: No!

Tim: When was the antennae installed?

#16: Oh, a long time ago...

Tim: 2 years? 3 years?

Audience: Longer that!

#16: Since that time we lost all of our gardens.

Tim: Natcom has only been in the country for 7-8 years.

Marco: But, are you sure the antennae was responsible...?

#16: Yes

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): That's what people say, but we can't be sure.

Tim: It was around then that harvests started to decline?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes, it was all ruined. All the Coffee.

Tim: There's no Coffee at all now?

Audience: No, there's no Coffee.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): You'll find some.

Islande: Was the Coffee under the "*skolit*" affected?⁵

#16: The "*Skolit*" drained the spring that fed the Coffee.

Audience: Something black spread on the Coffee trees, the same thing that covers the Soursop fruit...

Tim: And you don't have Cacao either now?

#16: A few trees remain.

Tim: Well! We'll start now. I already explained what we are doing. Now we will just ask some questions. We'll start with trees. So, what trees do you have around here? You can answer, 18.

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): What trees do we have here? We have Mangoes, we have Avocados, we have Bitter Wood, we have Mahogany. You understand?

Tim. Yes, and what else?

Public/Unidentified participant (Focus Group Renal): And breadfruit.

⁵ Full Kreyol sentence: Islande: Èske anba skolit ki detwi kafe ?

Islande: There's something you're forgetting. You're not saying your number when you speak.

Tim: Yes! When you say something it's so we can find your name on the list.

Tim: What other trees do you have?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): We have breadfruit.

Tim: Yes, they just said that. What else?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): Breadfruit.

Tim: Yes.

Public/Unidentified participant (Focus Group Renal): We have papayas.

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): kanpech trees

Tim: Kanpech?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): Kanpech, kanpech

#17 (Focus Group Renal, Male, 37 years, 3 children, Mason/carpenter, 4th yr. high school): Mesquite.

#2 (Focus Group Renal, Female, 68 years, 4 children, farmer, no education): We have Mesquite.

#15 (Focus Group Renal, Female, 2 Children, Trader, 6th Grade): And we have Mahagony.

#16 (Focus Group Renal, Male, 51 year, 8 children, farmer): Guaba

#19 (Focus Group Renal, Male, 71 years, 9 children, farmer, no education): We have Gumbo Limbo.

Tim: Gumbo Limbo.

#2 (Focus Group Renal, Female, 68 years, 4 children, farmer, no education): We have Maiden Plum

#19 (Focus Group Renal, Male, 71 years, 9 children, farmer, no education): We have Mombin (Hog Plum).

Public/Unidentified participant (Focus Group Renal): We have lots of trees. We have all kinds of trees.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): We have another good crop.

Tim: What?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Apples.

Tim: What apple?

Islande: Ha! You never said that!

Tim: Apples, which apple?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Cashew apples, native apples, the ones they make nuts with.

Tim: OK.

Tim: When do you harvest them?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They're ready in June, July.

Tim: June, July and when are they done, July?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Marco: Ok, it starts in June and ends the same.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Tim: They start again at the same time, but are they important to you?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes, it is important to us because it sells at a high price.

Tim: And you have much here...

Public/Unidentified participant (Focus Group Renal): No, the storm destroyed most of them.

Tim: You did not plant them... you did not plant them again?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, I planted some again.

Tim: You've planted them?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Tim: When?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): January.

Tim: Well! Let's start talking about boards, lumber. Have we talked about boards?

##Favorites

Marco: What's most important to you?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Mango, Breadfruit and Coconut.

Islande: And you, what do you find most useful?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): The same. Breadfruit, Mango, Coconut. Breadfruit is very important for me.

Islande: What makes them so important?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Because they provide nourishment. I am able to feed my children with them.

Tim: What fetches the highest price in the market?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Breadfruit sells for a lot.

Tim: Is there only one variety of Breadfruit? Or do you cultivate several varieties?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): There are several...

Audience: We have two varieties.

Tim: What about Mangoes?

Audience: There are several varieties.

Tim: What type of Mango sells best?

Audience: Mango *yil*, Mango *kòn*, Mango *kawòt*, Mango *kakòn*

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are other Mangoes that sell even better, but we don't have them here. They are called *madan blan* and *fransik*.

Islande: What about here? Which Mangoes do you sell?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Mango *kakòn*, *laben*, *yil*, *labich*.

Tim: Why don't you plant *fransik* and *madan blan* if they sell better?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We can't get them...

Tim: You can't find them?

Audience: Sometimes we plant them, but they don't take.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): The soil is too dry.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We've tried planting them, but we didn't succeed.

Tim: Ok.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They turn into other varieties. When I planted a Mango *madan blan*, it produced another variety of Mango.

Islande: I have another question. There is a type of Mango that is almost exclusively found in the Grand Anse. Do you have that Mango here? Do you plant it?

Audience: We have it, but not many trees.

#1/#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The hurricane wrecked the trees. There were only a few left..

Marco: Ok, but returning to the Mangoes you still have, are there any big-time merchants that buy them from you?

Tim: Is there a tree that you don't want at all?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, no, no

Islande: No, let him speak. Each person has their own opinion.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Lucena causes a lot of trouble. You might plan on doing something with your land, but if Lucena seeds spread to it then they will completely take over the plot.

Tim: You can't remove the Lucena?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No, it's not possible.

Islande: Does anyone else have experience with a tree that you don't like? Number 16?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): You might not have a use for Lucena, but I think it's still important. It enriches the soil in place. And it feeds cows and goats.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes, for livestock forage. We also use it to make charcoal.

Tim: OK, we were talking about trees. What is your favorite tree?

Public/Unidentified participant (Focus Group Renal): Well, we like all trees.

Marco: Is there one you like more?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): We love Cashews. We love Breadfruit.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): All the trees, since we see they are important, we take care of them.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): We love Ash, too. We can cut them down and saw them.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): They are all useful.

Tim: They're all useful?

Public/Unidentified participant (Focus Group Renal): Yes, they're all useful

Tim: Well, in the end... Why are they useful. What do you get from them? You get fruit? You get Mangoes?

Public/Unidentified participant (Focus Group Renal): Yes, they bear fruit.

Tim: What else? What do you get from Mahagony?

Public/Unidentified participant (Focus Group Renal):

To cut, to make boards, to make furniture.

Tim: Boards?

Public/Unidentified participant (Focus Group Renal): Tables, beds, furniture.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): To make coffins...

Tim: Coff...?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Coffins.

#: Ash, Ash.

Tim: Ash?

#: Ash is good for caskets.

Tim: Ash, for making coffins?

#: Yes.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Tim: OK. I see you cover houses with Palm fronds, right?

Public/Unidentified participant (Focus Group Renal): Vetiver.

Tim: Vetiver?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: You make houses with it?

Public/Unidentified participant (Focus Group Renal): Yes, vetiver, we cover them with it, for the roof.

Tim But, you don't use wood?

Public/Unidentified participant (Focus Group Renal): Yes, the house is made of wood.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Kanpech poles.

Tim: Kanpech?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, Kanpech.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Star Apple.

Tim: Star Apple, Star Apples also give you fruit.

Public/Unidentified participant (Focus Group Renal): yes.

Tim: So, you sometimes cut down Star Apple trees?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, we mean...

Public/Unidentified participant (Focus Group Renal): There are two Star Apple trees, Kayimites, one to eat, one not for eating.

Tim: There are two types?

Marco: What's most important?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Grapefruit.

Tim: Grapefruit?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes.

Tim: Well, what tree do you like the least?

Public/Unidentified participant Voice: We like them all. There aren't any we don't like.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): The only tree we don't like is the Log Wood, because it has too many thorns.

Tim: Are there no trees that dry out the land?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Mesquite.

Tim: Mesquite, you don't want them around?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Mesquite is a good wood.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): It sounds like a stick of water and it has thorns.

Tim: Does it have thorns? Does it take a lot of water?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes, it has thorns but it's important. It takes the water from the earth.

Tim: Is there a tree that sucks the water from the earth?

Public/Unidentified participant (Focus Group Renal): yes, Trumpet.

Tim: Trumpet? But you like it anyway?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes.

Public/Unidentified participant (Focus Group Renal): Gumbo Limbo (gomye).

Public/Unidentified participant (Focus Group Renal): Guaba, Guaba.

Marco: Number 17, what do Trumpets do for the soil?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Trumpet grows on the ground. It doesn't dry up the water, it puts it into the ground. The tree that drains the soil is Satanye.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Zatanye. Avocado.

Marco: What number?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Avocados dry the soil too, Avocado.

Tim: And Neem (Indian Neem). Do you have Neems around here?

#: No, we have Lila.

Islande: That's it, that's it, yes.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Neem.

Tim: Neem does not dry the soil?

Public/Unidentified participant (Focus Group Renal): It doesn't take up the water.

Tim: You like the Neem?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes.

Tim: So, you love all trees.

Public/Unidentified participant Voice: We love all trees!

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It's good for fever. We like it.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Another tree that is superior is Sweet Orange.

Tim: You have a lot of those?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Well, we have them, yes.

Tim: They are good?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): yes.

Marco: Well, if we you had to choose out of all the trees you have, if you were to choose one of them, out of all the trees you have listed, which one is the most important?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Out of all of the trees there's not one that's not important for us.

Tim: Choose one you love most of all.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): One that's our favorite.

Marco: Yes,

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): In all the trees

Marco: The one you love the most, that's the most useful.

Islande: You, yes, according to you, which is your favorite?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): The tree I like, I like the Log Wood. I like Mahagony, I like Breadfruit.

Islande: One, why?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): It makes great beds.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): I like Eucalyptus

Island: why?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It's good for building. I sell them myself.

Tim: Hmmm

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It's good for a house, I do not use cement

Tim: Number 20, what tree do you like the most?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): The tree I like the most, Breadfruit.

Tim: Breadfruit you eat?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Yes.

Tim: Okay. #5

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): I like the tree we call Rose Wood. I like it because it makes beautiful furniture for the house.

Islande: Nice chairs.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes, it's good for building, and for furniture.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I love it. You can cut it or dry it if you need to have a home or need to make furniture.

Tim: OK, you. #2

Islande: You Ms. 41

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Who, me?

Islande: Yes.

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): My favorite tree? Mango.

Tim: For food.

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Yes, I eat Mango.

Islande: No. 2.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): My favorites are Lime and Orange.

Islande: Just one.

Tim: Because you can sell them, or because they are useful to you?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): It is useful for me because when I need to make 10 cents, a little money, that's where I get it.

Marc: Ok, you have Limes, you have Lime trees?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, I've removed them.

Marco: But you had them.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes, we had them.

Marc: OK.

Tim: And you want to have them again. And 18?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): I love Breadfruit.

Marco: Breadfruit Seed trees?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Why, because I get Breadfruit seeds from it. I like to eat the seeds.

Marco: But is it useful to you?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, it's helpful to me, the Breadfruit tree.

Tim: OK.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I love the Mango tree, because when we have Mangoes the children don't give me any trouble. They go eat a Mango.

##Uses of Trees

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): All the trees, since we see they are important, we take care of them.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): We love Ash, too. We can cut them down and saw them.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): They are all useful.

Tim: They're all useful?

Public/Unidentified participant (Focus Group Renal): Yes, they're all useful

Tim: Well, in the end... Why are they useful. What do you get from them? You get fruit? You get Mangoes?

Public/Unidentified participant (Focus Group Renal): Yes, they bear fruit.

Tim: What else? What do you get from Mahagony?

Public/Unidentified participant (Focus Group Renal):

To cut, to make boards, to make furniture.

Tim: Boards?

Public/Unidentified participant (Focus Group Renal): Tables, beds, furniture.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): To make coffins...

Tim: Coff...?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Coffins.

#: Ash, Ash.

Tim: Ash?

#: Ash is good for caskets.

Tim: Ash, for making coffins?

#: Yes.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Tim: OK. I see you cover houses with Palm fronds, right?

Public/Unidentified participant (Focus Group Renal): Vetiver.

Tim: Vetiver?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: You make houses with it?

Public/Unidentified participant (Focus Group Renal): Yes, vetiver, we cover them with it, for the roof.

Tim But, you don't use wood?

Public/Unidentified participant (Focus Group Renal): Yes, the house is made of wood.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Kanpech poles.

Tim: Kanpech?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, Kanpech.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Star Apple.

Tim: Star Apple, Star Apples also give you fruit.

Public/Unidentified participant (Focus Group Renal): yes.

Tim: So, you sometimes cut down Star Apple trees?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, we mean...

Public/Unidentified participant (Focus Group Renal): There are two Star Apple trees, Kayimites, one to eat, one not for eating.

Tim: There are two types?

Public/Unidentified participant (Focus Group Renal): yes

Tim: Oh! what else? What you make baskets with around here?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Latanye Palms.

Tim: Anything else?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, Royal Palm, when it gets to a certain height you might cut it down. Do you understand?

Tim: OK that was No. 18? We are being careless. Everyone please start by saying your number.

Marco: Each speaker, start by saying the number you have in your hands, then say what you have to say.

Tim: Yes, if we don't shout to say OK. No. 19, what do you make, you say you make baskets with latanye, OK! That's 15. What else?

Marco: Number 17, what do you do?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Palms.

Tim: You don't have Bamboo?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Bamboo, too. We make them with Bamboo.

Tim: Do you make traps to sell to fishermen?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: You make the traps with Bamboo?

Public/Unidentified participant (Focus Group Renal): Yes

Islande: Do any of you who are here make fish traps?

Public/Unidentified participant Voice: We make traps, and put them in fresh water.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): But not in the ocean.

Tim: But you don't fish yourselves?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Well, yes.

Tim: You fish in the sea?

Public/Unidentified participant (Focus Group Renal): No, not in the sea, in freshwater, in the river.

Tim: That was 18. What kind of fish do you catch?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Ah! We catch teta, barigon, mullet, etc. Several kinds of fish, lots of fish!

Islande: Ah, No. 16 was saying something. Do you make traps? 16?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It wasn't me?

Island: Uh, huh.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): yes!

Islande. You also put out traps?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes

Tim: In rivers?

Islande: Where do you put them?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Since the water is deep and runs under the trap, we cut off the water and block the fish so we can catch them.

Islande: Ah! OK. And what do you make the traps with?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): With Bamboo, we get the Bamboo and we weave it, we braid it into traps.

Islande: Ah, you plait it?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): yes.

Islande: You find Bamboo then you weave a trap?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes. I cut the Bamboo, I weave it, I dry it to harden it, then I tie it to fasten it, and the it's nn bari'l I killed the thread again, and then bait it, set it, and wait.

Tim: Do you ever make traps and sell them to open-water fishermen?

Public/Unidentified participant (Focus Group Renal): No, we don't do that.

Tim: You don't?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): No, I don't.

Tim: You don't do that? OK. What else do you do? Do you sell wood for making dugout canoes?

Public/Unidentified participant (Focus Group Renal): yes!

Tim: What wood is best?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Mango.

Tim: Mango, 15 says Mango. What else?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Momben.

Tim: What else?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Mango and Momben.

Tim: Well, so do you know Momben? There is a seed that floats in the water, you know it?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Momben?

Tim: Yes, we know, it has large seeds, isn't that Momben?

Islande: It has big seeds.

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Those seeds, do people come to buy them?

Public/Unidentified participant (Focus Group Renal): No, they don't.

Tim: OK. They have a tree that gives you a sort of black milk, do you know this tree? Do you use it, do you know it?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Fige.

Tim: What?

Public/Unidentified participant (Focus Group Renal): Fige Modi.

Tim: Yes, what's it called?

Public/Unidentified participant (Focus Group Renal): Fige

Tim: Fige?

Public/Unidentified participant (Focus Group Renal): Yes, Fige Modi

Islande: #16 What?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Fige Modi

Islande: Fige Modi, OK!

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It has a seed that makes a glue when you boil it.

Tim: And you can sell that?

Public/Unidentified participant (Focus Group Renal): No, we don't sell it.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): We sometimes make it but we don't sell it.

Tim: So you can make it?

#17 Yes, we know how, but it's not useful for anything.

Tim: But you make it to sell it?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): We do it, but we don't sell it.

Islande: But do you sell it?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No.

#17 We don't sell it, but we know places where they do sell it, though.

Tim: Who does that?

Public/Unidentified participant (Focus Group Renal): In the marketplace

Islande: Where do you see them selling?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): My mother-in-law sometimes makes it to go sell it somewhere else. She gathers seeds, boils them, and goes off to sell it.

Tim: OK! So, people from the coast they don't come buy seeds, they buy the glue already made?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, they buy it ready-made. If you offer it to them they'll buy it.

Interviewer: But they do not come buy it around here?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
No, they don't buy from us.

Tim: OK, what other things do you get from trees that are useful for you, or people from other places?

Tim: Kisa ankò?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
Yes.

Tim: What else?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
There's something called Kakonn.

Tim: Kakonn.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
Kakonn.

Tim: What is that?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
It has red seeds. They're like a knee, what's inside a knee.

Public/Unidentified participant (Focus Group Renal): They put it in a scarf.

#17 They put it into a scarf.

Tim: A scarf?

Islande: That you put around your neck.

Tim: Of course! To look nice.

Marco: Ok, ok.

Tim: To look nice.

Marco: Scarf.

Islande: They wear them to look good, but also as a sort of collar. Like a scout, they put it around their neck to let people know they're in scouting. They put that around their neck, like a piece of fabric, and it serves as a barrier, to hold what you put in there.

Marco: Like a collar.

Tim: Is there anything else you were thinking?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): There's another thing, like Sapodilla.

Tim: Why is that good?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): It's produces a fruit. It has seeds like a Mango tree.

Tim: And what to do with the seeds?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): They eat them, and they sell them in the market. Sapodilla.

Islande: You don't have Castor Bean trees around here?

Voice: yes! A lot!.

Island: Good, and you didn't mention that?.

Tim: You didn't mention it! Laugh: ha ha ha! Well, what else?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Spanish Lime.

Tim: Spanish Lime. To eat?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Yes.

Islande: You don't have calabash trees here?

Public/Unidentified participant Voice: Yes.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): There are Papaya trees.

Tim: What do you say, 20?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Papaya.

Tim: Papaya.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It gives you a fruit.

Tim: It produces a fruit. A vegetable.

Public/Unidentified participant (Focus Group Renal): yes

##Trees vs. Crops and Livestock

Islande: Ok, but I need to know. What is more important: charcoal or animals?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Animals?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Livestock, like goats?

Tim: Yes

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Our livestock are more important than charcoal.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The reason why people make so much charcoal is because they don't have enough animals to raise money. You can sell them in the market. Hurricane Matthew killed a lot of our livestock.

Tim: Since the hurricane passed, people make more charcoal?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Matthew killed [the livestock], so we have no other choice but to make charcoal.

Tim: Is there no organization that distributes livestock in the area?

#16 : Yes, EPER

Tim: What did they provide?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They gave us the school...

Tim: Between your garden and animals, what is more important?

Audience: They're both important!

Islande: Ok, but if you had an emergency, what would you sell first?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): A livestock animal

Audience: An animal

Islande: What type of animal?

Audience: A goat, a cow, it depends on the situation.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Goat, sheep...

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Maybe one sheep isn't enough to cover the costs, in that case you would need to sell a cow.

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Or a pig

Marco: Does that mean that your livestock is even more important than your garden?

Audience: No, they're both good. But gardens are easier to maintain.

Islande: Wait, wait, let's let Number 3 talk.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): If I had to flee, than the decision would be easy. My cow can run (*laughter*).

Tim: (*Laughter*). Ok, so you would take the cow?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

Islande: You can't run with your land?

Tim: (*Laughter*) That would be something!

Audience: (*Laughter*)

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): I would take a handful of manioc roots along with the cow.

Tim: Ok, but if you had to choose?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): You have to choose the more valuable one...

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The cow is more valuable.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): The way I see it, each is different. If you need money fast, then you sell an animal. The garden is more useful for bringing in food to feed your children. An animal is something you can depend on in times of emergency. So it has to be prioritized.

Tim: You can sell trees too, right?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Hmm, you won't find someone to buy them fast.

Tim: Even for planks?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Even planks. There might not be a market for them at the time [of your emergency]. It's the livestock that will save you.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, an animal will save you, but in the long run a garden feeds you. If I had the opportunity, I would buy land and make a garden. But if I had a brother or a sister [in trouble] I would have to sell an animal.

Tim: I understand

Islande: Everyone has their own reasons...

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): Everyone has their own reality.

Tim: So it seems that it's because animals sell fast?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Sure, come take a look at my animals. I'll sell you one fast! (*Laughter*)

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): The way I see it, if you are faced with a problem then you can't sell your garden. People might not need it. But it's much easier to take an animal to the market to sell. They are the priority.

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): You can carry the produce from the garden as well.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Both – land and animals – are important to me.

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): You could always sell your land...

Tim: Do you have another question?

Islande: No

Tim: Ok then, we would like to thank you for your time.

Audience: Ok, thank you!

Islande: If I could ask one last, last question before we all go, what do you plant most around here?

Public/Unidentified participant (Focus Group Renal): Plantains, yams, sugarcane, sweet potatoes, beans.

Islande: OK!

Islande: What beans?

Public/Unidentified participant (Focus Group Renal): Black beans, kongo beans, sweet beans.

Tim: What is more important for you, your crops or your trees?

Public/Unidentified participant (Focus Group Renal): Crops.

Tim: OK, what's more important, your crops or your livestock?

Public/Unidentified participant (Focus Group Renal): Livestock, crops, they're both important.

Male non participant: If you have crops, you have to have livestock, too.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): You can't live without crops, you can't live without livestock. You need them both.

Tim: OK.

Islande: Why is that? Why is that?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Because, if you have a good garden with beautiful crops, if you have a goat and you need money, you sell it.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): You sell the goat to buy what you need for your farm land.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): You sell it to buy things to put in your garden.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): To buy inputs.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): To be able to hire day labor, etc.....

Tim: It's the animals that cover those costs?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, yes.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): I sell an animal. That is what I've got, what I own.

Tim: OK.

##Trees and Mysticism

Tim: But, do any of the trees carry a spiritual importance?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Are you talking about spiritual forces?

Marco: The vodou spirits, "lwa"

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Ok, I see...

Tim: You don't have any?

Marco: Are there any special trees that have spirits in the area?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We understand what you're asking, but it's not something we believe in. We don't serve those spirits. We don't know about them.

Tim: Are you Evangelists?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We hear about it...

Islande: Ok, maybe you don't personally believe in it, but have you heard people talk about some trees that shouldn't be cut down by anyone?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Sure, there are some trees that people talk about it like that.

Islande: What type of trees are they?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Most of the time they are a Calabash trees.

Islande: Calabash. What else?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Tamarind, Rubber trees (*Ficus elastica*).

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): And Gombo Limbo trees (*Bursera simaruba*)

Islande: Are there any Mapou trees (*Ceiba pentandra*) in the area?

#20/#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): There are some Mapou trees.

Tim: Do the Gombo Limbo often have them (*lwa*) too?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Yes

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): There are Mapou trees by the river. They are the trees you're talking about it, the ones that host spirits.

Marco: Number 16, do people ever cut down these special trees?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): People do it sometimes

Marco: Would you ever cut down a mystical tree?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, I don't do those things.

Tim: Wait, let me ask you a question. There are trees that have spirits in them, right?

Piblik: Yes.

Islande: Apple trees.

Tim: Hmm.

Islande: Cashew trees.

Tim: Cashew trees have spirits?

Islande: They have nuts, seeds (nwa).

Tim: No, spirits (*lwa*).

Marco: Ah, spirits. OK.

Islande: Ah, OK, spirits (*lwa*,miste).

Tim: Do you have those?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes, there are trees like that. We can't cut them down.

Tim: You can't chop them down, is it an ancestral thing, or...?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes, it's a family thing, a matter of blood, or race..

Tim: These ancestral trees, you have them on your own land?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): If you have it on your land, you can't cut it down.

Islande: How do you know when a tree has a spirit in it?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): How you know is that ever since you were a child you've seen old people worshipping there, telling you the tree must never be cut down. They worship there and say such-and-such a spirit lives there, you can't cut it down.

Tim: OK, 18, but what kind of tree is most likely to have a spirit in it?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Calabash.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Calabash, Mango, they have them, too.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Fige, Spanish Lime, Palms, too.

Tim: OK.

Marco: Ok, 18, under what conditions could you cut down a tree like that?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Ah! I can't cut it down, ever!

Tim: Trees like that, are they near water, are they always by the water or can they be anywhere?

Public/Unidentified participant (Focus Group Renal): Anywhere, they can be anywhere.

9. Fruit Trees

##Seasons

Tim: What about passion fruit?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Sure.

Tim: Do you have a lot?

Audience: Yes, we collect them. But they've become expensive because they are rare now.

Tim: Because they are not in season?

Audience: Yes

Tim: But do you usually have a lot? What time of the year do they come into season?

Audience: Around the month of May

Tim: Until when?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): They start to fruit in May and yield in June. You can find them through the month of December.

Tim: How about Mangoes?

Audience: The main season arrives during the school vacation, in June, July. But Mangoes produce almost year around. They almost don't have a season.

Tim: The season never ends?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): While you finish picking the Mangoes on one tree, the fruit of another tree are ripening, while another tree is putting on flowers.

Tim: Do you have Mangoes now?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): The biggest Mango harvest is in May.

Tim: And Custard Apples?

#26/#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): You can see that Custard Apples are coming into season now.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Starting in January, they start to fruit.

Islande: Until when? When is the last of the harvest?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Maybe May or June.

Marco: What about star apple?

Islande: Do you have start apples in this area?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): No, we don't have any.

Islande: And Papaya?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Yes, we are thick with Papaya here.

Islande: When do they start to produce?

#3/#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Papayas are year-round.

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): It depends when you plant them.

Tim: So each tree has its own season?

Islande: Are there some months that produce more Papayas than others?

Marco: Is there a time of year when everyone has Papayas?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Right now we have a lot.

Marco: What months do you have the most.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): In December, January

Islande: What about other areas?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): December, January, even February. But they fruit year round.

Tim: Tell me about Limes. When is their season?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): It depends on the weather.

Tim: What about sweet Oranges?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Sweet Oranges usually start to yield in May, June. Sometimes there is a second season in November through January.

Islande: And Soursop?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Starting in March. Limes can start to produce in March too.

Islande: Limes start in March?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes.

Tim: When do they finish?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): They start to run out in October.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): In November you can barely find them [in the market] and they become expensive.

Islande: So you might say they start to run out in September...

Tim: Do you have Avocados here?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): This year we don't have any at all

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are some

Tim: Did the hurricane destroy them?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, not all of them. There are still some trees.

Islande: When do they produce most?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): July

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): In July and August.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Also in September, October and November

Islande: Wait, tell me more about Soursop...

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Soursop have the same season as Custard Apple.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Soursop is in season now.

Tim: When does it finish?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): You'll find some all year, not in abundance but a few.

Islande: And almonds?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Almonds fruit when the leaves drop and flowers bloom.

Islande: In what season do you have a lot of Pineapple?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): When June and July come around.

Unidentified Male Participant: In July.

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): In May, too!

Tim: When, from May to when?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): May, June, July.

Tim: May, June, July, OK. And Mango?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): May.

Tim: Until when?

Public/Unidentified participant (Focus Group Renal): It starts....

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): January, it starts in January and goes to the month of May.

Tim: Ok.

Marco: Ok, and for Pineapple, in what month do you have the most?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It starts in May and ends in July.

Marco: Does it start in May?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes.

Marco: It ends in July.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes, because it is one harvest after another.

Tim: And Star Apple?

Islande: Hmm.

Marco: Yes

Tim: Star Apple. When do you find them?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): March.

Tim: March, until when?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Until May.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): In June too.

Tim: And Custard Apple (Cachiman)?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Custard Apple is usually ready around this month, in January it's there.

Tim: Until when?

Public/Unidentified participant (Focus Group Renal): July.

Tim: Lime?

Island: When do the first Custard Apples ripen?

Voice: Lime doesn't end, it's harvest after harvest..

Marco: Ok, #41, Custard Apple (Cachiman), in what month did you say?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): It starts in January, February and March, we still have it in April.

Tim: And Limes, when do you have the most Limes?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): The month of June.

Tim: When does it end?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): It ends in April.

Tim: It ends in April, it starts in April, it ends in June, so there are only two or three months.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes.

Tim: And Sweet Orange?

Public/Unidentified participant (Focus Group Renal): Sweet Orange starts at the same time..

Tim: Lime, Grapefruit is the same time?

Public/Unidentified participant (Focus Group Renal): Yes
Unidentified Male Participant: Three months, three months.

Tim: Oranges, it's the same time?

Public/Unidentified participant (Focus Group Renal): Yes

Marco: They all have the same dates?

Tim: Three months, they bear fruit for three months.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, it's the same time, the same three months.

Tim: What fruit have we missed... and Coconut bear fruit twice?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Coconut is one year.

Public/Unidentified participant (Focus Group Renal): It's one harvest after another, but it's hard for them to reach the point where they are ready. They grow slowly, and they can easily get destroyed in a storm.

Marco: How many months, how many months?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): They can take a year.

Islande: No, harvest-after-harvest means one week so-and-so has them, and another week somebody else does.

Tim: OK, so it doesn't have a season, each tree has its own season.

Marco: How many months?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): One harvest after another.

Tim: OK, so it doesn't have a season, each tree has its own season.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes.

Tim: So, what are we missing here? Is there another fruit?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Papaya.

Tim: OK, Papaya.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Papaya, I heard Papaya.

Islande: What did you say, No. 20?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): I said...

Islande: When do you have the most Papayas?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Right now, the Papayas are ready.

Islande: When will they be finished, do you know?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): It's one harvest after another.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Harvest after harvest.

Tim: Avocados?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Every year they're ready in June, and even May.

Tim: And how many months until it ends?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): We have Avocados that don't end until December.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): We have another good crop.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Cashew apples, native apples, the ones they make nuts with.

Tim: OK.

Tim: When do you harvest them?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They're ready in June, July.

Tim: June, July and when are they done, July?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Marco: Ok, it starts in June and ends the same.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

...

##Selling and Market

Tim: What fetches the highest price in the market?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Breadfruit sells for a lot.

Tim: Is there only one variety of Breadfruit? Or do you cultivate several varieties?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): There are several...

Audience: We have two varieties.

Tim: What about Mangoes?

Audience: There are several varieties.

Tim: What type of Mango sells best?

Audience: Mango *yil*, Mango *kòn*, Mango *kawòt*, Mango *kakòn*

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are other Mangoes that sell even better, but we don't have them here. They are called *madan blan* and *fransik*.

Islande: What about here? Which Mangoes do you sell?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Mango *kakòn*, *laben*, *yil*, *labich*.

Tim: Why don't you plant *fransik* and *madan blan* if they sell better?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We can't get them...

Tim: You can't find them?

Audience: Sometimes we plant them, but they don't take.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): The soil is too dry.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We've tried planting them, but we didn't succeed.

Tim: Ok.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They turn into other varieties. When I planted a Mango *madan blan*, it produced another variety of Mango.

Islande: I have another question. There is a type of Mango that is almost exclusively found in the Grand Anse. Do you have that Mango here? Do you plant it?

Audience: We have it, but not many trees.

#1/#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The hurricane wrecked the trees. There were only a few left..

Marco: Ok, but returning to the Mangoes you still have, are there any big-time merchants that buy them from you?

Audience: Yes!

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Sure, the market vendors.

Islande: How do you sell Mangoes to the merchants?

Audience: We sell them by the basket, by the bucket.

Marco: Do they come to purchase them by car?

Audience: No

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, they don't come to us.

Marco: The merchants come by foot?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Generally, small-time merchants travel here by foot from town.

Islande/Tim: Do you carry the Mangoes? Who carries them to the market?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, you carry them to the roadside. Vendors meet you there. They buy them to resell in the market.

Tim: Does no one come to directly to buy Mangoes? They might buy the harvest from a whole Mango tree?

Audience: No no

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, that's not done here.

Tim: Do merchants purchase the harvest of any other types of fruit?

Audience: No

Tim: Not even with Coconuts?

Audience: No, you pick Coconuts as you need them to sell.

Tim: When you sell Coconuts, do you dry them first?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes

Tim: Until they have no Coconut water?

Audience: No, they still have water.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): You can sell them as soon as they are ripe.

Islande: But do you ever dry them first, so that the Coconut flesh can be grated?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Once you can hear the water shake in the shell, that means the flesh is hard. That means you can grate it and it is good to sell.

Islande: Do you also sell fresh drinking Coconuts?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No. I know they sell them in town, but we don't sell them around here

Tim: What about passion fruit?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Sure.

Tim: Do you have a lot?

20 Minit

Audience: Yes, we collect them. But they've become expensive because they are rare now.

Tim: Because they are not in season?

Audience: Yes

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, we had a lot of Grapefruit growing up.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They used to yield fruit in the month of March. But it was always difficult to find customers to buy them all.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I remember harvesting them in December and January.

Tim: What would you do with the surplus?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We sold some, made juice.

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Some went to waste.

Tim: Did you give the rest to animals?

Audience: No, we sold them.

Tim: Animals don't eat Grapefruit?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, only people eat them. We made lots of juice, but we couldn't drink it all. Now we don't have any left.

Tim: You had a lot?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): A lot.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): When we had too much, we used to peel the fruit to make jam.

Tim: Papaya.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It gives you a fruit.

Tim: It produces a fruit. A vegetable.

Public/Unidentified participant (Focus Group Renal): yes

Marco: But do you take them to sell in the market?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes.

Marco: They don't come to you to buy it?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, they do not come buy it, but we go to sell it in the market.

Islande: What market to you sell it in?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Beaumont, Jeremie, Roseau.

Tim: People come to buy?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No,

Tim: You transport it there.?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): We take it there.

Tim: What else do you take to market?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Mango...

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Avocado...

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Breadfruit

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Cachiman (Custard Apple),

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Soursop

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Sugarcane,
Tim: Mango?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Cane.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Sugarcane.

Tim: Sugarcane! And what Mango is the most important Mango around here?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Mango Labiche.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Kakonn Mango.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Francique.

Marco: #18, What Mango do you have the most of around here?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Well around here we have all kinds of Mangoes.

Marco But what do you think is most common?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): The Kakòn Mouben is the one we have the most of.

Marco: Kakonn.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Kanel Mangoes.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Labiche.

Tim: Which one gets the best price?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Mango Kakonn.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Kanel.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): There's a Mango like that but we hardly have any around here.

Marco: Kakòn has horns?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes.

Islande You don't have Yil Mangoes around here?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): There's another Mango Fil (string).

Islande: This is the number 5 who is talking.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): It usually has worms, but when it doesn't it sells for a higher price than the others.

Islande: Because it is refreshing.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): It's a refreshing Mango.

Tim: OK, and do you have any Coconuts here?

Public/Unidentified participant (Focus Group Renal): Yes.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): We lost most of them to the storm. We have some little ones but the weather killed most of them.

Tim: Do people come to buy Coconuts from you?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): When we had them. When we had them. we took them to sell, but now we don't have them.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Now we are starting all over.

Tim: Among all of these trees, what sells for the highest price? Even if it's for the wood. What is the most valuable one to you?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Limes

Tim: Lime?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Lime, Orange,

Public/Unidentified participant (Focus Group Renal): Yes

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Coconut.

Tim: What? Coconuts are valuable, too?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): yes.

Tim: Let's talk a little more about fruit. What fruit sells best here?

Marco: What fruit? Like when we talk about fruit, Mango...

Islande: Mangoes, Avocados, Oranges, Limes, Grapefruit.

The Public/Unidentified participant repeats all of these fruits.

Tim: Is there one that sells best?

Islande: That sells the most. That is the most popular.

Marco: Ok, #19 what sells best in this area?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): The best seller is Coconut.

Marco: Coconut.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Marco: Out of all the fruits, Coconuts sell the best?

Tim: You all agree?

Marco: You all agree?

Island: You understand? The most money, the most fruit.

Islande: OK! The ones that sell the fastest?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): You'll sell more Mangoes, when you put it into ... you'll sell out.

Islande: OK, and what do you sell the most of?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): What sells best is Custard Apple (Cachiman)...

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): And Soursop.

Islande: Number 15 says Soursop, OK!

Tim: What's most important, as in, when you're hungry, when there's a drought, when you have problems, when you can't find work, things like that.

Islande: What helps you?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Well, what's most important when we're hungry, it's yellow yams.

Tim: 16

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Because when we buy a basket for two hundred *dola*, to plant, in times of hunger you can get something to eat from it every three months.

Marco: OK, number 16, but do you all agree?

Public/Unidentified participant (Focus Group Renal): Yes, we agree.

Tim: Yellow yams.

Islande: And you don't have manioc here?

Public/Unidentified participant Voice: The storm destroyed them all, we're having to start all over with them.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): And that was your best crop.

Tim: The yams?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Manioc.

Tim: Manioc?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): We had all those things, but they were wiped out.

Islande: OK, Let us return to fruit. Do you have Grenandin around here?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): We used to have them, but we don't any more.

Islande: And Passion Fruit?

Public/Unidentified participant (Focus Group Renal): Yes, we have them.

Tim: Pineapple...

Public/Unidentified participant (Focus Group Renal): Yes, we have those.

Islande: Well, you didn't talk about those things at all.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Well you know, there are a lot of those things.

Tim: There are a lot of them.

Marco OK, so when you say, yes, you have them, do you mean you have a large quantity of them, or that people might have a couple trees in their gardens?

Public/Unidentified participant (Focus Group Renal): We don't have them in quantity.

Unidentified Female Participant: One person might have them, but not everybody.

Unidentified Male Participant: They might have two or three trees.

Islande: Pineapple does not sell much.

Public/Unidentified participant (Focus Group Renal): Right.

Islande: It does not sell fast.

Public/Unidentified participant (Focus Group Renal): Right.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): When there's not much of it, it sells fast. When there's a lot it doesn't sell well.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Cashew apples, native apples, the ones they make nuts with. ...

Tim: ... they important to you?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes, it is important to us because it sells at a high price.

Islande: What kind of trees do you buy?

Public/Unidentified participant (Focus Group Renal): All kinds of trees.

Islande: No. 5, what kind of trees do you buy?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): All kinds of trees.

Islande: Such as? Give me some examples.

Tim: Do you buy trees?

#5 Yes, I buy trees, but what I buy the most is ash and Log Wood, because I've already used to them.

Islande: So what do you use Log Wood for?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Houses, posts...

Islande: And ash?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): I make house beams.

Tim: But for your own home, or to sell?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): For my own home.

Tim: You don't saw boards to sell?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): I've never done that, but I can't say whether I might do it some day.

Tim: Is there anyone here who has bought trees to saw boards and sell them?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Who does that?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I've done it.

Tim: 17, do you?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I buy them, saw them, make furniture from them, I make coffins, and I sell them.

Tim: You are a carpenter. OK, so is there anyone who is not a woodworker who does this? Are there any women who do?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, I do not.

Tim: None of the women do that all, no women buy trees as an investment?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): No, you won't find any.

Tim: Does anybody buy Mangoes?

Public/Unidentified participant (Focus Group Renal): Yes

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, I do.

Tim: You buy the whole tree?

Public/Unidentified participant Voice: We buy the harvest.

Tim: The harvest!

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): You buy the harvest.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, the harvest.

Tim: Then you go harvest all the Mangoes?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes, it's going to be...

Islande: Number 15, you used to buy Mangoes?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Tim: #15

Islande: How much do you pay for the Mango tree, how much can you buy a tree of Mangoes for?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): With all the Mangoes in it?

Islande: Yes.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): What that means is that you buy it according to the quantity of Mangoes in it, you might pay the person a thousand *goud*. That means the tree won't be mine, but I can buy the harvest for 1000 *goud*.

Tim: Ok 15, you've bought it, then what do you do?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I go and sell it.

Tim: But how, you are the one who goes and picks the fruit?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No, I have someone pick for me, and I go and sell it.

Marco: You pay that person?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, if it's somebody in my family. I don't pay them, but otherwise I pay them for the service, and they harvest for me.

Islande: How much do you usually pay?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I pay them 30 *dola* (30 Haitian *dola* or 150 *goud*) or 50 *dola* (250 *goud*).

Tim: Now, you carry off the Mangoes?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Tim: You put them on a truck, or a bus?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, a truck or a motorcycle.

Islande: Where do you sell them?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Roseau, Jeremie, Beaumont.

Tim: OK.

Islande: Do you pay after you've finished selling, or do you pay before you go to sell?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): It depends on the terms I've agreed to. I might say I'll pay after I've finished selling, but if the other person doesn't agree to that I'll pay before selling.

Tim: Do you do that with other fruit too, such as Custard Apple or Star Apple?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No.

Tim: No, Avocado?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, there are people who do that although I never have.

Tim: Yes, but most of the time you do it with Mango?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, it's easier with Mango.

Tim: And the Cashew apple, you don't do it with apples?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): There are not enough to do it.

Tim: hmm.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): There aren't enough to buy and then resell.

Tim: There is not enough to do it?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes.

Tim: What do you do with them?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): The apple?

Tim: Yes.

#7: The apple, like the apple, they sell the apple, I mean they eat the apple and they sell the seeds to make things to eat out of them.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): You make tablets with them.

Tim: You make tablets?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes.

Tim: But you don't go to Jeremie with them, there aren't enough?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, that means the person does not have enough to go to the market with them, they don't have enough to go sell it.

Islande: But there aren't other vendors who come buy from them at the crossroads?

Public/Unidentified participant (Focus Group Renal): Yes.

Islande: Well, when they come to buy it, it's not to go resell somewhere?

Tim: The seeds, but they don't buy the tree's harvest, they don't buy the harvest.

Island: When the nuts are ready how much can you sell a can for?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): It depends on when we start.

Marco: Number 5.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): When there's a lot at the beginning, one can sells for 20 *dola* (100 *goud*). But when it starts to get scarce it can sell for 30 or 40 *dola* per can.

Islande: OK Number 5, is there nobody here who has sold tablet made with the Cashew nuts, or who makes grilled Cashew nuts to sell?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Well we don't sell just the nut, we sell it whole, with the flesh.

Islande: Number 41, you sell it with the skin and everything?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Yes.

Islande: How many cans (mamit) do you sell in a year?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): I haven't sold it in a long time, because the trees just don't produce much, there's no harvest and sometimes we eat everything we grow, so there's none left to sell.

Islande: Ok. So nobody here sells the nuts, you don't sell the seeds? You sell the whole fruit?

Public/Unidentified participant (Focus Group Renal): Yes, with the flesh.

Islande: Hmm. Nobody has done it?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): With the flesh, measured by the can?

Islande: Hmmm.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Sure, I do. I sell 4, 5, 6, 7 cans.

Islande: And those 4, 5, 6, 7 cans, they go to people in the neighborhood, or do people from other areas nearby come for them?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): It's not people from outside. It's like a game, I trade, I'll take somebody else's, or he'll take mine. If there's enough I'll take them and go sell them by the can.

##Mangos

Marco: What's most important to you?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Mango, Breadfruit and Coconut.

Islande: And you, what do you find most useful?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): The same. Breadfruit, Mango, Coconut. Breadfruit is very important for me.

Islande: What makes them so important?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Because they provide nourishment. I am able to feed my children with them.

Tim: What fetches the highest price in the market?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Breadfruit sells for a lot.

Tim: Is there only one variety of Breadfruit? Or do you cultivate several varieties?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): There are several...

Audience: We have two varieties.

Tim: What about Mangoes?

Audience: There are several varieties.

Tim: What type of Mango sells best?

Audience: Mango *yil*, Mango *kòn*, Mango *kawòt*, Mango *kakòn*

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are other Mangoes that sell even better, but we don't have them here. They are called *madan blan* and *fransik*.

Islande: What about here? Which Mangoes do you sell?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Mango *kakòn*, *laben*, *yil*, *labich*.

Tim: Why don't you plant *fransik* and *madan blan* if they sell better?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We can't get them...

Tim: You can't find them?

Audience: Sometimes we plant them, but they don't take.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): The soil is too dry.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We've tried planting them, but we didn't succeed.

Tim: Ok.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They turn into other varieties. When I planted a Mango *madan blan*, it produced another variety of Mango.

Islande: I have another question. There is a type of Mango that is almost exclusively found in the Grand Anse. Do you have that Mango here? Do you plant it?

Audience: We have it, but not many trees.

#1/#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The hurricane wrecked the trees. There were only a few left..

Marco: Ok, but returning to the Mangoes you still have, are there any big-time merchants that buy them from you?

Audience: Yes!

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Sure, the market vendors.

Islande: How do you sell Mangoes to the merchants?

Audience: We sell them by the basket, by the bucket.

Marco: Do they come to purchase them by car?

Audience: No

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, they don't come to us.

Marco: The merchants come by foot?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Generally, small-time merchants travel here by foot from town.

Islande/Tim: Do you carry the Mangoes? Who carries them to the market?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, you carry them to the roadside. Vendors meet you there. They buy them to resell in the market.

Tim: Does no one come to directly to buy Mangoes? They might buy the harvest from a whole Mango tree?

Audience: No no

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, that's not done here.

Tim: OK, we were talking about trees. What is your favorite tree?

Public/Unidentified participant (Focus Group Renal): Well, we like all trees.

Marco: Is there one you like more?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): We love Cashews. We love Breadfruit.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): All the trees, since we see they are important, we take care of them.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): We love Ash, too. We can cut them down and saw them.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): They are all useful.

Tim: They're all useful?

Public/Unidentified participant (Focus Group Renal): Yes, they're all useful

Tim: Well, in the end... Why are they useful. What do you get from them? You get fruit? You get Mangoes?

Public/Unidentified participant (Focus Group Renal): Yes, they bear fruit.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Mango, Breadfruit and Coconut.

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Marco: Ok, but returning to the Mangoes you still have, are there any big-time merchants that buy them from you?

Tim: How about Mangoes?

Audience: The main season arrives during the school vacation, in June, July. But Mangoes produce almost year around. They almost don't have a season.

Tim: The season never ends?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): While you finish picking the Mangoes on one tree, the fruit of another tree are ripening, while another tree is putting on flowers.

Tim: Do you have Mangoes now?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): The biggest Mango harvest is in May.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Number 3. Well, the trees that are most important for us are Mango trees. After that, Breadfruit, Coconut and Soursop – but recently Soursop fruit are spoiled by "*limon*" (type of fungus).

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): One important thing is that when the fruit are ready, worms get into the Mangoes. We need something to prevent that. You should give us something to fix the Mangoes. It's something that hit the trees. You might have beautiful Mangoes, but you can't find one to eat because they've all got worms. They're no good.

Tim: OK, 18, but what kind of tree is most likely to have a spirit in it?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Calabash.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Calabash, Mango, they have them, too.

Marco: Do people ever make charcoal from fruit trees?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Not unless the tree dies.

Islande: Explain.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Fruit trees like Mangoes are very valuable. You wouldn't cut one down to make charcoal.

Marco: But what if it's an emergency, like paying school fees. Has that ever happened to you?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No. That's not what Mango trees are for...

Tim: Let's talk a little more about fruit. What fruit sells best here?

Marco: What fruit? Like when we talk about fruit, Mango...

Islande: Mangoes, Avocados, Oranges, Limes, Grapefruit.

The Public/Unidentified participant repeats all of these fruits.

Tim: Is there one that sells best?

Islande: That sells the most. That is the most popular.

Marco: Ok, #19 what sells best in this area?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): The best seller is Coconut.

Marco: Coconut.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Marco: Out of all the fruits, Coconuts sell the best?

Tim: You all agree?

Marco: You all agree?

Island: You understand? The most money, the most fruit.

Islande: OK! The ones that sell the fastest?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): You'll sell more Mangoes, when you put it into ... you'll sell out.

Islande: OK, and what do you sell the most of?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): What sells best is Custard Apple (Cachiman)...

Tim: Does anybody buy Mangoes?

Public/Unidentified participant (Focus Group Renal): Yes

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, I do.

Tim: You buy the whole tree?

Public/Unidentified participant Voice: We buy the harvest.

Tim: The harvest!

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): You buy the harvest.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, the harvest.

Tim: Then you go harvest all the Mangoes?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Yes, it's going to be...

Islande: Number 15, you used to buy Mangoes?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Tim: #15

Islande: How much do you pay for the Mango tree, how much can you buy a tree of Mangoes for?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): With all the Mangoes in it?

Islande: Yes.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): What that means is that you buy it according to the quantity of Mangoes in it, you might pay the person a thousand *goud*. That means the tree won't be mine, but I can buy the harvest for 1000 *goud*.

Tim: Ok 15, you've bought it, then what do you do?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I go and sell it.

Tim: But how, you are the one who goes and picks the fruit?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No, I have someone pick for me, and I go and sell it.

Marco: You pay that person?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, if it's somebody in my family. I don't pay them, but otherwise I pay them for the service, and they harvest for me.

Islande: How much do you usually pay?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I pay them 30 *dola* (30 Haitian *dola* or 150 *goud*) or 50 *dola* (250 *goud*).

Tim: Now, you carry off the Mangoes?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Tim: You put them on a truck, or a bus?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, a truck or a motorcycle.

Islande: Where do you sell them?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Roseau, Jeremie, Beaumont.

Tim: OK.

Islande: Do you pay after you've finished selling, or do you pay before you go to sell?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): It depends on the terms I've agreed to. I might say I'll pay after I've finished selling, but if the other person doesn't agree to that I'll pay before selling.

Tim: Do you do that with other fruit too, such as Custard Apple or Star Apple?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No.

Tim: No, Avocado?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, there are people who do that although I never have.

Tim: Yes, but most of the time you do it with Mango?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, it's easier with Mango.

Tim: And the Cashew apple, you don't do it with apples?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): There are not enough to do it.

Tim: And “*bwa fouye*”?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, they use it for “*bwa fouye*.” And Mango wood as well.

Audience: [Agreement] Yes, they use Mango wood.

Audience: The trees that are most useful are Breadfruit, Mangoes, fruit trees – ones the that provide food.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Number 3. Well, the trees that are most important for us are Mango trees. After that, Breadfruit, Coconut and Soursop – but recently Soursop fruit are spoiled by “*limon*” (type of fungus).

Tim: And what about other fruit? Like Mangoes?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): During hurricanes Mangoes fell to the ground... We still have Coconuts. Breadfruit Nuts (*Bocconia frutescens*) used to be an important tree crop for us, but now we hardly have any left.

Tim: Well! We'll start now. I already explained what we are doing. Now we will just ask some questions. We'll start with trees. So, what trees do you have around here? You can answer, 18.

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): What trees do we have here? We have Mangoes, we have Avocados, we have Ash, we have Mahogany. You understand?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): What advice would I give them?

Tim: Yes, would you ask for help with fruits, for help with charcoal?

Marco: But only with trees.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): For trees only. Mangoes. We could use that, too, because we've lost a lot of Mango trees. We used to have lots of Mangoes, but not so much any more. We need more Mangoes.

Tim: You mean you would like a nursery with Mango trees?

#Man: Yes, for us to plant.

Tim: Horn Mangoes?

#Man: Blan, francique, for us to plant.

Tim: Franciques, are there people who come here to buy those to export?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, there aren't.

Tim: People sell them in the streets. And you, 16, what kind of project would you like to see?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Well, I'd go into Mangoes more, too. Because, if I could find Francique Mangoes I'd plant them. Madanm Blan, I'd plant them. I have Labich and Kanel Mangoes, but I don't have the other kinds.

Tim: OK, and 15, what kind of project would you want, to help with trees?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I'd ask for Coconut trees, because in the past we grew lots of Coconuts, but now we hardly have any. I'd do an intervention with them. If they were looking for a project, I'd ask them to do that for us, to give us Coconuts, and Mangoes, too. They're very important.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Well, what I think we need is for someone to come graft the few Mango trees we have left, so they can reproduce. Understand? So they could produce nice Mangoes, and people would be able to have them.

Tim: Graft the ones already here?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, for people to sell, and eat, too.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): So, I already talked about Mangoes. I said Mangoes are something we used to have around here in great quantities, but they've been destroyed in storms. So we need to do something to bring them back.

Tim: What kind of intervention would you prefer, one with charcoal, with fruit, or with trees to cut into boards?

Male non participant: Trees to make boards?

Marco: Is that what you would choose?

Tim: All... you would choose lumber?

Male non participant: Part boards, part food.

Marcos: Out of those three, which would you choose? You have to choose just one. Which one?

Male non participant: Choose one!

Marco: Chose one.

Male non participant: Fruit. Mango.

Tim: Mango. Which Mango?

Male non participant: Big Mango.

Tim: What kind of Mango?

Male non participant: Mango Madan Blan.

Tim: Madan blan. OK. You think we're good? OK, does anyone have anything they'd like to add? Is there anything important we should know? I'm going to take what we've discussed to the bosses.

Marco: Anything you think is important for us to know.

Male non participant: We have Madan fransique.

Tim: Fransique.

Tim: What wood is best?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Mango.

Tim: Mango, 15 says Mango. What else?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Momben.

Tim: What else?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Mango and Momben.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): There's another thing, like Sapodilla.

Tim: Why is that good?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): It's produces a fruit. It has seeds like a Mango tree.

...

##Ownership of Trees

Tim: Ok. Let me ask you a question, if you have a Mango tree on your land, in your yard and it's yours...can you sell it?

Audience: Yes

Tim: Could you sell just the tree? So it becomes someone else's tree?

Audience: No, that's not done.

Tim : Ok, but if you have a garden that was passed down through your inheritance...for example your father gave it to you. Can your brother come take part in it?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes, if it was inherited.

Tim: What if it was purchased from your father. Then can you and your siblings still work the land?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): No

Tim : Ok, but can you sell a tree on it, like a Oak tree (*Catalpa longissima*)?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Sure

...

Islande: It seems the strategy is to divide your land into multiple plots and only plant manioc on some plots and let trees grow on others, so that you can rotate between the plots. And if you have a lot of land than you can let the trees mature before clearing them to plant crops.

Tim: OK, I understand. What is the best way to divide your land? Do you split it into a certain number of plots or do you just use what you have?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It depends on what you have. Some landowners have 3, 4, 5 different plots of land. That means they can wait a long time – maybe even 10 years – before returning to the same plot.

Tim: How much land do most people have? 1 *kawo*, 2 *kawo* of land?

40 Minit

Number 1, what are the average land holdings of people in the community?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): It's different for everyone.

Islande: How about for you?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I personally have a half-*kawo* of land.

Tim: You have a half-*kawo*. Do you have children?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes

Tim: How many?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I have 5 children.

Tim: Really? You look too young for that many...

Islande: I am 38.

Tim: *Laughs*...And you, Number 5, how many *kawo* do you have?

#5: 2 *kawo*

Tim: And number 10?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): 2 *kawo*

Tim: Is it yours, or?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): It's my husband's.

Tim: It belongs to you and your husband?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes

Tim: Did you both inherit land?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): He purchased his land

Tim: And when you put your holdings together, you have 2 *kawo*? How much is your share?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): No, that doesn't include inherited land...

Tim: Your holdings don't include inherited land? Does that mean what you have with your husband is all purchased?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes

Tim: Do you cultivate a garden on it?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes, my husband works the land.

Tim: Ok, ok. What about you? Number...?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Number 26.

Tim: 26. How much land do you have?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): My wife and I have a half-*kawo* or so. But I might inherit more in the future.

Tim: Number 10?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): I purchased a half-*kawo* with my husband.

Tim: With your husband...Do you have your own inheritance?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): I have inherited land. My husband has a large inheritance.

Tim: Do you work your inherited land?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes

Tim: You, yourself?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): No, it's not me who works the land. It's my husband.

Tim: Ok, when your husband cultivates the land he has inherited, does the harvest belong to both of you?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes!

Tim: Even if he is working on his own inherited land?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes

Tim : Is that how it works for everyone?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes. My husband also works on my inherited land.

Tim: Does that mean he is working for you? And the harvest is yours?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): It's for us. It's ours.

Tim: Do you take part in the labor of harvesting?

#5: What?

Tim: As a woman, do you help [in the field]?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Yes

Islande: So if your husband plants the crops, you harvest them?

#5: Yes, yes

Tim: Number 19, how much land do you have together? Are you married?

#19 (Guiotte Focus Group, Leon Jasmine, Female, 22 years-old, 0 Children, Farmer, High School Diploma): No.

Tim: Of course, you're still young. Do you live with your folks?

#19 (Guiotte Focus Group, Leon Jasmine, Female, 22 years-old, 0 Children, Farmer, High School Diploma): Yes, I live at my parents' house.

Islande: Do you have any land?

#19 (Guiotte Focus Group, Leon Jasmine, Female, 22 years-old, 0 Children, Farmer, High School Diploma): No, not yet

Tim: How much land does your mother have?

#19 (Guiotte Focus Group, Leon Jasmine, Female, 22 years-old, 0 Children, Farmer, High School Diploma): She has one *kawo*.

Tim: She has one *kawo* together with your father?

#5: His father died...

Tim: Ok. What about you, Number 17?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): I have a half-*kawo* of land.

Tim: With your husband?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): No, on my own.

Islande: You don't have a husband

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): He is in Port-au-Prince

Tim: Do you have inherited land as well?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): No, not yet.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): He's not in line to inherit yet.

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): Yes

Tim: Ok, so the land is still in your parent's hands?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): Yes, they take care of it.

Tim: When your parents pass on, do you stand to inherit some of the land?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): Yes, my brother and I will inherit it.

Tim: You'll split it between you two?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): Yes

Tim: Will you be able to do what you want with it?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): Yes

Tim: How will you divide up the land? Decide which part is yours? Will you negotiate that with your [parents]?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): Yes, with my brother. He will probably sell his part to me since he is not here. I'll buy it from him, or else I'll farm Plantains on his land and send him some of the proceeds.

Tim: Ok. And you Number 3?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): That's my youngest son there (*laughs*). I have a little over a half-*kawo*.

Tim: A half-*kawo*? So you have that with your wife?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

Tim: Do you have any inherited land beyond that?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): My father has a little as well, we all live together

Tim: How much land do you have?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): A half-*kawo* together with my husband.

Tim: Do you have a separate inheritance?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No

Tim: And you, Number 15?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): I don't own any land.

Tim: You don't have any yet? Are you still your parents' charge?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): Yes

Tim: Your still with your parents, but they haven't given you land to farm?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): There's enough land to go around if I want to start a garden.

Tim: Ok. Is there anyone else?

Islande: No, we're finished. However, I would like to ask Number 15 a follow-up question. Earlier you said that you cut wood to make charcoal. Where does the wood come from?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): It comes from my family's land. There is a half-*kawo* or so that has wood to harvest.

Tim: But look, if there is a Mango tree, you have a Mango tree, does it belong to several people?

Public/Unidentified participant (Focus Group Renal): No It has a single owner?

Tim: Yes but, now... OK, for example, even the Custard Apple (Cachiman)...

Public/Unidentified participant (Focus Group Renal): yes.

Tim: It's the same with all trees, each has just one owner.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, if it's on the person's property it's his.

Islande: Well, let me pose the question another way. On an inherited piece of land, does the tree belong to one person?

Public/Unidentified participant Voice: No. It belongs to all of the heirs.

Tim: So, all of the trees on the family land...

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They belong to all of the heirs.

Tim: Well.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They can all have a share.

Tim: OK. So, imagine I have a Konn Mango tree, Konn is the one you said sells well?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: So the Mangos are ready to harvest. Does anyone in the household have the right to harvest it and sell it?

Public/Unidentified participant (Focus Group Renal): Yes, since it's in the house.

Islande: No, so any of those who inherited it?

Public/Unidentified participant (Focus Group Renal): Yes

Tim: They can sell it?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They go in and sell it.

Islande: Number 17 has something to say.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Somebody comes into that field, one of the heirs, and plants a tree, that tree is his. He might decide not to harvest everything, and leave something because he's not the one who planted the garden, somebody else did.

Tim: Well.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): You understand what I'm saying?

Tim: Yes, that's a good story, and it's the same for wood?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes.

Tim: You plant on your own inherited land and it's yours?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes

Tim: OK. And everybody recognizes that [the land] belongs to the family.

Islande: Do you buy trees on somebody else's land, and leave them to grow a little more?

Public/Unidentified participant Yes, we always do that

Tim: You buy them on other people's land?

Public/Unidentified participant (Focus Group Renal): Yes

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, when we need it, we go and get it.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): When we need it, we go cut it down.

Tim: How long can you leave it there?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): For five, six years. You buy it and then you go and get it.

Tim: OK.

Islande: How much do you pay for a tree?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): It depends on how big a tree it is. If you buy it when it's small you can pay, say, two hundred *dola* for it.

Islande: What kind of trees do you buy?

Public/Unidentified participant (Focus Group Renal): All kinds of trees.

Islande: No. 5, what kind of trees do you buy?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): All kinds of trees.

Islande: Such as? Give me some examples.

Tim: Do you buy trees?

#5 Yes, I buy trees, but what I buy the most is ash and Log Wood, because I've already used to them.

Islande: So what do you use Log Wood for?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Houses, posts...

Islande: And ash?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): I make house beams.

Tim: But for your own home, or to sell?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): For my own home.

Tim: You don't saw boards to sell?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): I've never done that, but I can't say whether I might do it some day.

Tim: Is there anyone here who has bought trees to saw boards and sell them?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Who does that?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I've done it.

Tim: 17, do you?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I buy them, saw them, make furniture from them, I make coffins, and I sell them.

Tim: You are a carpenter. OK, so is there anyone who is not a woodworker who does this? Are there any women who do?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, I do not.

Tim: None of the women do that all, no women buy trees as an investment?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): No, you won't find any.

10. Wood Trees

##Lumber

Tim: You can sell a standing tree?

Audience: Yes

Islande/Tim: How about you? Do you sell trees often?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, Oak trees. Trees that you can saw...

Tim: Saw?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, people will buy a tree on your land and come cut it down and saw [planks].

#16: For example, if you have a Oak tree on your land, and it's reached a certain size where it won't grow any more, then you can sell it to someone to saw. There are several timber species: Oak, Cedar, Mahogany... there's a tree they call *mawo* (maybe: *Daphnopsis americana*). That's what they buy most. We plant it as well so that we can sell it when we need to.

Tim: You plant Cedar, Mahogany...

#16: Yes, we plant Cedar, Mahogany, *mawo*, Laurel (*Lauraceae* family).

Tim: And Eucalyptus?

#16: That too. We plant all of them. They're all useful.

Tim: Do you ever plant trees to make charcoal?

#16: No, there's no need. Trees that make charcoal reproduce/regenerate on their own.

Islande: What trees do you use around here to make boards?

Public/Unidentified participant (Focus Group Renal): Mahogany, ash.

Tim: Yes, they said that, but which is more...

Islande: Which is best, for making boards?

Public/Unidentified participant (Focus Group Renal): Mahogany, cedar, oak

Tim: They already said that.

Islande: 17, cedar?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Oak, oak, oak.

Islande: Oak?

Tim: They said that, also, you said Kaliptis.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
Yes

Tim: They already said that. So, let's change the subject, because we talked about that? Let me ask a question about...

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
The laurel makes really good boards.

Islande: Hmm!

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school):
The laurel makes very good boards.

Tim: Laurel, too?

Islande: Laurel...

##Other Uses

Other_Uses

Tim: Are there other uses for wood? For example, in other areas people make traps out of wood for their fishing boats.

Islande: Yes, "nas" (traps/nets) to catch fish.

Audience: They build them out of Bamboo

Tim: What else do you use to build traps?

Audience: With Bamboo and *Wozo*

Tim: Ok, I'm thinking of something different, called "bwe." I'm not sure if I'm saying it correctly? It's something black...

Islande: Oh, I know. You're thinking of pitch!

Tim: Do you use it when constructing your house?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, if you're house has a leak you can seal holes in the roof sheeting with pitch.

Tim: Yes, that's it.

Islande: Do you have Rubber trees (*Ficus elastic*) here?

Audience: No, we don't have any.

Tim: Ok, so you make traps out of Bamboo. What do you use to make baskets?

Audience: With leaves from the *latanye* Palm.

Tim: Only with *latanye*?

Islande: Do you have *latanye* Palms (Royal Palms) in the area?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are some, but many were destroyed.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Don't forget about vines!

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, we use vines as well. There is a vine called "*lyann barye*" to make baskets. It makes strong baskets, that you can use to harvest your crops.

Tim: "*lyann barye*?"

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): But it was damaged...

Islande: Do they also make knapsacks out of it?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, they make them out of the same vine.

Islande: What about chairs?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): They make the frame out of wood and the seat out of Palm thatch.

Islande: A Royal Palm leaf that is yellow?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Other people use *latanye* Palm instead

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, but people mostly use young Royal Palm leaves.

Tim: Will any wood do for the chair, or is there a special type?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): A special tree.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): People mostly use Bitter Wood (*Simarouba spp.*) or Wild Sapodilla (*Sapotaceae* family). They use them for the crossbars of the chair.

Tim: Now, do you people purchase planks?

Audience: Yes

Tim: Do they use wood to build fishing boats?

Audience: Yes

Tim: Are there specific types of trees used to build fishing boats?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, there is a tree called Monben (*Spondias mombin L.*). And another called West Indian Laurel (*Calophyllum calaba L.*)

Tim: What purpose do they serve? Are they good for making planks?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They're good for carving out so you can make a fishing boat. The best wood for planks is Bitter Wood.

#1/#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Mahogany is also used for planks.

Tim: And "*bwa fouye*"?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, they use it for "*bwa fouye*." And Mango wood as well.

Audience: [Agreement] Yes, they use Mango wood.

Islande: Besides those two, are there any types of trees used?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Sure, many types of large trees are suitable, as long as they meet the right criteria.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They have to be very large.

Islande: What other criteria do you look for?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Mostly size, the tree needs to be the size of a man, in terms of length and width.

Tim: Is that why you use Monben trees? Because they are so large?

Audience: Yes

Islande: Are there no Monben trees here?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, there are none.

Audience: There are some areas that still have them, but not many.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There used to be more...

Audience: The trees that are most useful are Breadfruit, Mangoes, fruit trees – ones the that provide food.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): You might not have a use for Lucena, but I think it's still important. It enriches the soil in place. And it feeds cows and goats.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes, for livestock forage. We also use it to make charcoal.

Islande: What about for tools? Do you use a special type of wood for the handle of picks, machetes?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): We use wood from Orange trees for machetes.

Islande: What about for pick handles?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We mostly use Sapodilla.

Islande: Only Sapodilla? Do you use other types of wood?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Calabash (*Crescentia cujete*)

Islande: What do you with Calabash trees?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): There used to be a lot of Calabash trees. We used the Calabash when we needed a “*kwi*.”⁶ A long time ago people used it to Oak meat. Then they would add other things to conserve the meat.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): People also used to make vessels out of the Calabash gourd. They would pierce a hole in the gourd and carve out the inside so that it could carry water. Gourds keep water much cooler than plastic containers.

Islande: What about now?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are still some people that use them, but mostly people use “*kwi*”

Tim: Do you eat liane panier (hoopvine)?

Public/Unidentified participant (Focus Group Renal): Yes, we eat it. That’s great stuff.

Tim: A great thing?

Public/Unidentified participant (Focus Group Renal): Yes, it’s great.

Tim: But, is it good for other things, like is it something you can make charcoal with?

Public/Unidentified participant (Focus Group Renal): No, they make baskets with it. They cut it and make baskets with it.

Tim: They make baskets with it?

⁶ Full Kreyol sentence: Pye kalbas nou te konn genyen’l nou te konn genyen’l anpil nou te konn itil tankou lè nou bezwen kwi, nou koupe nou jwenn kalbas la nou koupe’l nou fè kwi nou sèvi avè a avèk kwi a tankou lontan moun yo te konn renmen tranpe vyann nan kwi epi siw gen yon lòt bagay pou’w pouse pou’w mete ou ka mete’l nan pou konsève yo mete’l nan kwi.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes, you eat the leaves, like a spinach, you can make juice with it, and the vine, it's straight, you make baskets with it.

Tim: You make juice with the leaves?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Are there other leaves you eat like that?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: What other leaves?

Male non participant: Spinach.

Tim: No, leaves from a tree.

Male non participant: Leaves from a tree... there's olive leaves.

Tim: Olive?

Male non participant: Olive.

Tim: Are there any others?

Male non participant: They're good greens. Morenga.

Tim: Yes, Morenga.

Tim: OK, so, we're done. We would like to thank you sincerely... unless there is anything else you think we need to know.

Islande: Are there any artisans in the area who use latanier trees? Does anybody make crafts with those things?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): What do you mean artisana?

Islande: You make hats, you make baskets...?

Public/Unidentified participant (Focus Group Renal): Yes.

Islande: Hmmm!

Public/Unidentified participant (Focus Group Renal): Shoulder bags.

Islande: Are there people who make those things around here?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: What do you make them with?

{#20} Public/Unidentified participant (Focus Group Renal): With latanier.

Tim: Latanye

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): It can be used for seats in a chair, to sit in.

Tim: Chairs, too.

Public/Unidentified participant Yes. OK.

Islande: OK, you haven't said what kind of wood you use to make chairs.

Public/Unidentified participant (Focus Group Renal): With ash.

Islande: Straw chairs, that is.

Public/Unidentified participant (Focus Group Renal): With ash.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): And Palm fronds.

Marco: The seat is with Palms?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, the fronds.

Public/Unidentified participant (Focus Group Renal): Palm fronds for the straw seat. We weave it.

Marco: Weave.

Tim: You don't make houses with Palm boards?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Yes, strips.

Tim: Yes, strips.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Yes, that house right there is made with Palm strips.

Tim: OK, I see. That's Palm tree?

Public/Unidentified participant (Focus Group Renal): Yes, Palm. OK.

Islande: What do you use to make attics, lofts?

Public/Unidentified participant (Focus Group Renal): With boards, cut boards, Palm-tree boards.

Marco: OK! If you think you have anything else that's really important about trees, you can say it.

Tim: About trees, anything that's a big deal. You say there are diseases that are hitting your trees?

Marco: Other than illness that strikes your trees, is there anything else important about trees?

11. Trees as Fuel

##Charcoal

Tim: Do you ever plant trees to make charcoal?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, there's no need. Trees that make charcoal reproduce/regenerate on their own.

Islande: What type of trees do you use to make charcoal?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): We use pieces of large trees. Like the ones that fell in church yard. The hurricane uprooted the trees and scattered them on the ground. Now we use them to make charcoal. But during normal times, we mostly use Mesquite trees...

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): And other trees that don't produce fruit.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): We also use Log Wood and Lucena (*Leucaena leucocephala*). Lucena is well suited to charcoal. It's very hardy. If you let it grow, it will take over your field and shade out other crops – like Manioc. Manioc takes a lot of sunshine to produce tubers. If there's too much shade, then it will only produce leaves.

Tim: Then is Lucena a tree that you don't want to grow into a mature tree?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): It's not that we don't want it to grow, that's just how you manage your land. You have to cut Lucena so you don't have too much shade.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): You might not have a use for Lucena, but I think it's still important. It enriches the soil in place. And it feeds cows and goats.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes, for livestock forage. We also use it to make charcoal.

Marco: Do people ever make charcoal from fruit trees?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Not unless the tree dies.

Islande: Explain.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Fruit trees like Mangoes are very valuable. You wouldn't cut one down to make charcoal.

Marco: But what if it's an emergency, like paying school fees. Has that ever happened to you?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No. That's not what Mango trees are for...

Islande: Number 15? What if your children needed something urgently? Would you cut down a fruit tree to make charcoal?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): No, I would only make charcoal if the tree was already dead.

Islande: What about you, number?

Public/Unidentified Participant: Number 41. Would I ever cut down a fruit tree? No I couldn't cut something that brought me a return every year.

Islande: What type of trees do you use to make charcoal?

Public/Unidentified Participant: Let's see, Lucena, Log Wood, Mesquite, and other trees that don't bear fruit.

Tim: Is there a time that you make charcoal?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): There's no specific time.

Tim: So, any time?

Audience: Any time.

Marco: But is there a time when most people make charcoal?

Public/Unidentified Participant: Most often it's when we are clearing our fields to plant manioc, in January, February and March. We gather lots of wood to make charcoal at that time.

Marco: Ah ok. But if there's a season when everyone is making charcoal, does that mean that there isn't charcoal available at other times?

Public/Unidentified Participant: No, people make charcoal during other times of the year as well. They just make more when they are clearing the fields of fallen wood.

Tim: Ok, so that I understand, after you clear the land and make charcoal, what do you do with the land next?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We burn the debris and then we plant our garden on the land.

Tim: What do you plant?

Audience: Manioc, sweet potatoes, corn, peanuts, all sorts of things.

Marco: Do any of you maintain a plot to sell wood for charcoal?

Islande: Such as a wood lot?

Public/Unidentified Participant: No, people don't buy wood. There is enough to forage.

Tim: What about a wood lot? Does anyone ever buy the trees to make charcoal?

Audience: No

Public/Unidentified Participant: When you work your land, there is also wood to be cleared.

Islande: What about you? Do you ever purchase wood to make charcoal?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): No. I cut wood from my parents land to make charcoal.

Tim: Let me return to an earlier question. First you clear your land, then you plant a garden. By the time you harvest the garden, have new trees already started to come up?

Audience: Yes, they come back.

Tim: Do you maintain any [perennial crops] in your garden? For example, you cultivate beans, corn and melons to harvest the same season, but are their crops like manioc that last longer?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes.

Tim: Are they compatible with growing trees?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Only if you manage the trees. You must cut them back when you plant your garden, then by the time the crops are ready to harvest the trees have started to come back again.

Islande: Number 3, how long does manioc need to mature for harvest?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): 1 year

Islande: How often do you plant manioc in your garden?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Almost every year.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): But you can't replant manioc in the same place every year. You plant it on other plots of land, before returning to plant on the original plot some years later.

Islande: Ok, let me understand better: you rotate your crops between plots and let the land rest. Do trees grow on the land while it is fallow?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

Islande: So in that way you always have manioc and trees growing?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

Tim: Does that mean that you don't cut the trees down on the [fallow] plot for 5 or 6 six years?

Audience: Yes

Tim: Does it take that long for the trees to reclaim the land?

Audience: By then you will have a lot of trees.

Islande: But you probably need a lot of land in order to rotate your plots like that...

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes

Islande: It seems the strategy is to divide your land into multiple plots and only plant manioc on some plots and let trees grow on others, so that you can rotate between the plots. And if you have a lot of land than you can let the trees mature before clearing them to plant crops.

Tim: OK, I understand. What is the best way to divide your land? Do you split it into a certain number of plots or do you just use what you have?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It depends on what you have. Some landowners have 3, 4, 5 different plots of land. That means they can wait a long time – maybe even 10 years – before returning to the same plot.

Islande: Do you gather the wood on your own, or do other people help you?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): No, I usually do it on my own.

Islande: Do you make charcoal in the same place you gather the wood? Or do you have a specific place where you produce charcoal?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): I make it on the land...

Tim: On the same land?

Islande: There is a saying, I'm not sure if people say it here?: "*chabon zepòl*"

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): "*Chabon zepòl*." Yes, we've heard it before. (Translates literally to charcoal shoulder, likely the practice of gathering wood from wherever you can find it).

Islande: How do they do it here?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): People transport it on their backs. They collect wood piece by piece as they go along.

Audience: You gather enough wood until you have a pile.

Marco: Is there any state-owned land here?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): No

Tim: Is this practice accepted? What do you think of people who gather wood like that?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): "*Chabon zepòl*"?

Tim: Yes

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): I don't see it very often...

Marco: Do you agree with it?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): I'm not crazy about it.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, it's makes for trouble.

Islande: Number 3?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Sure, it's a problem. I want to save the trees on my land for my children. If someone came across my land and cut them, I would take issue with it.

Marco: What would it mean to you?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): It would be a problem if someone cut my trees down. I plan to pay for my children's education with those trees. I'll cut them down to make my own charcoal.

Islande: Ok, so what would you do if you caught someone cutting your trees down?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): I would tell them to never return!

Islande: Does that ever happen? That you catch people cutting wood that isn't theirs?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, people still do it.

Islande: Number 16, what do you do in that case?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Well, I have some land that is far away and difficult to keep an eye on. When I visit it, sometimes I find people cutting the trees and making charcoal.

Marco: Do you ever catch them in the act?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Sure

Tim: What did you do to them?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): I [pretended] to try to buy the charcoal.

Tim: How did they respond?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They said the charcoal cost 300 HTG (60 *dola*) per sack. He still didn't know that it was made from my trees.

Audience: (*Laughter*)

Marco: So what did you to the guy?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): I didn't do anything.

Tim: What did you do to make him pay for the charcoal?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Oh, I gave up.

Tim: You didn't call the police?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): There are some people who will cut a little of the wood on your land and pay you back another day.

Marco: Explain

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): You let them get away with it, because they don't have a *goud* to their name.

Islande: So it is necessity that drives them to cut wood on your land?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, yes

Tim: Do you not make charcoal? Are there people that specialize in certain activities, like making charcoal? Do you ever give someone the job of making charcoal with the wood on your land?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No

Islande: You never ask other people to make charcoal for you?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Only if I am busy with other work, then I might ask someone else.

Tim: Who do ask? Is there someone that specializes in making charcoal? Is there a charcoal tradesman?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are a lot of people who know how to make charcoal.

Islande: A lot of people know how to make charcoal, does that mean you could ask anyone to do it?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): As long as they know how to do it.

Tim: Can anyone make charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Sure, anyone can do it.

Tim : Anyone?

Audience: Yes

Tim: Can anyone saw wood [planks]?

#16/#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No

Tim: That's the work of a tradesman

Audience: Yes

Islande: So why can anyone make charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Because making charcoal is easy!

Islande: Can you make charcoal? Do you make charcoal?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): No

Islande: Number 26, do you make charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, I don't.

Tim: Why?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It's not my domain to make charcoal.

Tim: Because it's dirty?

Islande: Then whose role is it to make charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): But if someone gave me wood to make charcoal, I'd do it.

Islande: Is there a way to do it?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There is a way that they stack the wood. I've seen them do it. If they asked me to take over, I could do it.

Tim: Do you ever sell charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, I haven't sold it before. I'm not a merchant.

Tim: You don't take sacks of charcoal to the market to sell?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No

Islande: Is there anyone here that sells wood?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Yes, we sell wood.

Islande: Ok, how do you sell it?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): You find people who make charcoal and you sell them wood.

Islande: You sell them a tree or a pile of wood?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): You negotiate a price with them and you sell them what you have.

Tim: How much wood do you need to make a sack of charcoal?

Audience: We don't know the measurement. We usually buy it in bulk.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): For example, they sell a small bag of charcoal for 125 HTG (25 *dola*).

Tim: Ok, but if you had to estimate, how much wood would go into a 125 HTG bag of charcoal?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): That's not how it works...

Islande: Then how do you measure?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): We collect wood when we work the land. But we don't...

Tim: You don't buy wood? But this woman just said she sells wood to make charcoal. So some people must buy it...

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

Tim: So have you bought wood from her?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, I could buy from her.

Tim: Is it already cut?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, it's already assembled on the ground.

Tim: Then you agree to price for the amount you want to buy?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes

Tim: Ok, but is there a typical way that is sold?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No, not really.

Tim: How do you measure the amount when negotiating a price?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): The vendors stack it into piles. The price depends on the height of the pile.

Tim: There's no standard measurement? Like a cord of wood?

#26 : No, no

Islande: Everyone sets their own price?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes

Islande: Ok, but I still want to know how much a sack of charcoal sells for?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): A large sack sells for some 250 HTG or 300 HTG.

Tim: 50 *dola*, 60 *dola*?

Audience: Yes

Islande: Do people transport the charcoal by vehicle to sell elsewhere? Where do they sell the charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Sure, there are vehicles that carry it to Port-au-Prince to sell.

Islande: Are there vehicles that come here?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, they come here to purchase it.

Islande: How much do they buy?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): The merchants purchase many sacks and travel with it to Port-au-Prince to sell.

Islande: Are there any such merchants in this area?

Audience: Yes, there is.

Islande: There are [charcoal] merchants here?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No, not among us....

Islande: Maybe not yourselves, but others...do any of you sell charcoal? Even just by the sack?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): For sure. That's what I was saying. I sell them at 250-300 HTG.

Islande: Ah, ok.

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): The larger vendors sell them by the "*lo*"

Islande: By the "*lo*" you sell the charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): There are 10 sacks in a *lo*.

Islande: How much does a *lo* sell for?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): 10 sacks sells for 400, 500, 600 *dola* (2000, 2500, 3000 HTG)

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): No, it's should be 700, 800 *dola* (3500, 4000 HTG)

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): That depends, there are times when it is more expensive.

Islande: When is charcoal more expensive?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Actually, it's more like 700 *dola* (3500 HTG)

Tim: But you said, that you don't travel to Port-au-Prince to sell charcoal?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): No

Tim: Does anyone here travel to Port-au-Prince?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): No

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We go to Port-au-Prince sometimes, but not to sell charcoal.

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): We sell it here.

Islande: Do you sell charcoal by the *lo* here (10 sack increment)?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): Yes?

Islande: How much do you sell a *lo* for?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): I used to sell it for 550, 600 *dola* (2750, 3000 HTG)

Islande: And now?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): Oh, I had to give up selling charcoal.

Piblik: But you know the price, how much does it sell for now?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): Now a *lo* sells for 700 *dola* (3500 HTG)

Islande: What makes the price increase or decrease?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The price goes up when school is in session. Lots of people need charcoal to prepare food for their children in the morning before they leave for school. When school is out, parents find other things to feed their children that don't require charcoal to prepare. That causes the price of charcoal to decrease.

Islande: So the price goes down during school vacation?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Not at the moment. The price of charcoal is still high because of the hurricane destroyed a lot of trees. Now there is less wood to make charcoal.

Islande: Ok, but do people use charcoal year-round to bake bread?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Not really around here...

Islande: Do people from town ever purchase wood to run their laundry businesses?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No

Tim: Do any of you sometimes buy a stack of wood to make charcoal?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: What's your number again, 19?

Marco: Number 16

Tim: 16, you do that?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes, we all do it.

Tim: Everyone around here makes charcoal?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes, everyone does it.

Tim: Which wood is best to buy to make charcoal?

Islande: To make charcoal?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Log Wood.

Tim: Log Wood.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): Din wood.

Tim: Din wood, what else?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Those are the woods I know that are good for charcoal.

Tim: Why are they good for charcoal?

{ #2 } Public/Unidentified participant (Focus Group Renal): Because they are harder.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It's hardwood, it's the best wood.

Tim: When it's small?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): It's harder, it's more firm.

Tim: Ah, it's hardest.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Yes.

Marco: Do you ever make charcoal with wood from fruit trees, fruit-bearing trees?

Public/Unidentified participant (Focus Group Renal): No.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): If they are already dead, if they die and you cut them down, you know?

Marco: If it's dead wood?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): If a tree dies and it's no longer of any use, it won't bear any more fruit for us, we have to cut it down, and we make charcoal out of the wood.

Marco: But you never just choose a tree like that, and cut it down to make charcoal?

Piblik: No.

Tim: Or if there's an emergency, you say, we are going to have to chop down that Mango tree?

Public/Unidentified participant (Focus Group Renal): No.

Tim: That isn't done?

Islande: If there's a problem or an illness, you might say, we're going to have to cut down that Mango and use it to make charcoal?

Public/Unidentified participant (Focus Group Renal): No, that wouldn't be good for us.

Islande: It might not be good, but do you have to do it sometimes anyway?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): If I see, this is No. 5 speaking, if I see a Mango tree and it's clearly not dying, it's healthy, if I cut it down to make charcoal it's as if I'm killing a human being.

Marco: But do you ever do it?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): No, I don't.

Tim: OK, let's get back to charcoal. Now, you can buy a stack of wood?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: And, you say, what kind again?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Log Wood, hardwood.

Tim: Log Wood, hardwood.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Me, I do that. I buy wood, I make charcoal, when there's Sapodilla, Sour apple, when there's one that's no longer bearing fruit people sell it in the market. It has a tiny seed. Those little seeds, birds eat them, you know? I buy those kinds of wood and I make charcoal.

Tim: OK, so it's not good for anything else any more?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): No.

Tim: 18

Islande: OK, so this charcoal, do you sell it, or use it around here, or what?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Sometimes we sell it in Port-au-Prince, and sometimes we just sell it in the streets.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Me, I always sell my charcoal in Port-au-Prince.

Tim: 15, OK, so you send it by truck?

Public/Unidentified participant (Focus Group Renal): Yes, on a truck.

Tim: You ride with it?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Tim: You go with it. Do both men and women do this?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Do you go sell it in a warehouse, do you sell it all at once, in bulk?

{#2} Public/Unidentified participant (Focus Group Renal): Yes, we go sell it in a warehouse.

Islande: And when you do this, when you make charcoal, sometimes does someone come buy it from you here and go sell it? I mean a reseller, a middleman, who takes it to sell in Port-au-Prince?

Public/Unidentified participant (Focus Group Renal): Yes.

Islande: Or do you always take take it to sell in Port-au-Prince yourself, after you make it?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No, traveling merchants sometimes come buy from us.

Tim: Resellers come buy here?

Public/Unidentified participant (Focus Group Renal): If we want, we can go sell it ourselves.

Tim: You make more profit that way?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: What's the difference?

Islande: Wait, let's consider this closely. When you sell to someone who's going to turn around and sell it somewhere else, how much do you get for a sack of charcoal?

Tim: A sack sold here.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): 70 *dola* (350 *goud*), or maybe you'd sell it for 60 *dola*.

Islande: 60 *dola* to the retailer.

Islande: And if you go to Port-au-Prince, how much do you pay for the truck to transport one sack of charcoal?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): 25 *dola*. There are places where they transport it for 30 *dola*.

Islande: OK, and what do you pay for yourself, for your seat?

Public/Unidentified participant (Focus Group Renal): You don't pay.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): For yourself, you don't pay.

Tim: And how much do you get per bag?

Islande: What do you sell a sack for when you get to Port-au-Prince?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Depending on whether you can sell it, if you have 10 sacks you might sell them for 1200, or maybe 1000 *dola*.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): That means you're selling it wholesale, they call 10 sacks one lot, so you are selling one lot.

Islande: Ah! Lot, you sell one for 1000 *dola* (5000 *goud*)?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes, or 1200.

Tim: One lot, how much do you sell it for here?

Public/Unidentified participant (Focus Group Renal): There are 10 bags.

Tim: And, how much does one lot sell for here?

Public/Unidentified participant (Focus Group Renal): 600, 700 *dola*. 3000 *goud*.

Tim: 600, 700, you double the money?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Islande: It's almost double, the lot sells at 1000 *dola*.

Tim: Almost double, 1000,

Public/Unidentified participant (Focus Group Renal): Yes, it's almost double.

Islande: But what if you subtract the money you pay to transport it?

Public/Unidentified participant (Focus Group Renal): Yes, you take out the cost of transport.

Tim: No, that's 25 *dola*, you say.

Islande: \$25 per bag.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Per sack, for each bag.

Islande: Each bag is 25 *dola*.

Tim: That's 250?

Islande: Yes.

Tim: Now you are paying 250 *dola*, after all.

Islande: Hmmm!

Tim: OK...

Marco: OK #15. Do women sometimes buy a field of wood?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes.

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: And she pays a man to cut it?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): She pays a man to cut it.

Tim: Do women sometimes cut down trees?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes, women do chop down trees.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Yes.

Tim: And when you make charcoal, you cover it with earth?

Islande: A small or large amount of charcoal?

Public/Unidentified participant/Unidentified participant: A small amount, however much charcoal they can make.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Whatever we can do.

Islande: How many bags of charcoal will you get out of it?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Say five bags, maybe eight.

Islande: And men, how many bags of charcoal might they be able to make?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): 50, 80 100, or more. Me, I make 80, 90, 100 or so at a time.

Islande: 18, All at once?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, in one charcoal oven.

Tim: But, when you buy the wood to make the charcoal, do you make the charcoal yourself, or do you pay somebody else to do the work

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, I pay somebody to cut the wood, you understand, and then I take the wood, on my own, I burn it myself, and then I put it into the bags and go to sell it in Port-au-Prince myself.

Islande: And when you're putting it into the bags, do you sometimes have your family come to help?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes.

Islande: Who typically helps you put it into the bags?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Well, neighbors, or I might hire somebody to sort it.

Islande: Wives, women.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Usually I pay somebody to sort the charcoal.

Islande: Do you bring your wife, or somebody else, I don't know.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Charcoal, it's the wife's charcoal.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, that's always the way charcoal has been done, charcoal belongs to the wife.

Islande: The children, do the children go along to sort the charcoal, too?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes.

Islande: Who is more likely to sort the charcoal, little girls or little boys?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Everybody sorts. Girls sort, boys sort.

Islande: But who does it more?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Boys. Little boys sort it the most.

Islande: OK, let's move on. Around here, do you ever do what you call "shoulder charcoal"?

Public/Unidentified participant (Focus Group Renal): Yes, well, that's exactly what we do. That's the only way we do it.

Public/Unidentified participant (Focus Group Renal): That's all we do (laughter).

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): « Shoulder charcoal, » that's... the distance from the cut tree, you carry it on your shoulder, the charcoal you carry here, that's the « shoulder charcoal. »

Public/Unidentified participant (Focus Group Renal): Shoulder wood charcoal. The wood might be cut at Charles Crossroads, and I'll carry it here.

Tim: When you chop down a tree, do you cut it all the way down to the roots?

Public/Unidentified participant (Focus Group Renal): Down to the ground. To the ground. You don't uproot it?

Public/Unidentified participant (Focus Group Renal): No.

Tim: And does it grow back?

Public/Unidentified participant (Focus Group Renal): Yes, it grows back.

Tim: So now you don't have to re-plant.

Public/Unidentified participant (Focus Group Renal): No, it will grow back just as it was.

Tim: But, does anybody plant trees expressly for the purpose of making charcoal?

Public/Unidentified participant (Focus Group Renal): No.

Tim: You just leave them to grow back?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Does every plot of land around here have a private owner?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: There's no state land?

Public/Unidentified participant (Focus Group Renal): No.

Tim: So that means that when you buy wood you buy it from a specific person. If you catch someone who's making charcoal with wood that's not his ...

Public/Unidentified participant (Focus Group Renal): He's got problems.

Tim: What do you do to him?

Public/Unidentified participant (Focus Group Renal): We send him to prison.

Tim: Does that ever happen?

Public/Unidentified participant (Focus Group Renal): It happens..

Tim: But you would denounce that person?

Public/Unidentified participant (Focus Group Renal): Well, he's a thief.

Islande: What do you do, hit him a few times with a stick?

Public/Unidentified participant (Focus Group Renal): We turn him over to the law.

Islande: You hand him over to the justice system?

Public/Unidentified participant (Focus Group Renal): Yes.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Well, there might be young people who do it sometimes.

Unidentified male participant: You ignore it. You turn your back

Tim: But do they do this a lot?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Do they take a lot?

Tim: Yes

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): That depends on how much they can carry!

Islande: (Laughter). Depends on how much they can carry. But a person might spend all day carrying wood.

Public/Unidentified participant (Focus Group Renal): Yes

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): He won't do it all day, because he never knows when the actual owner of the wood will show up.

Tim: He'll just take a little of it?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): He takes a little bit, then comes back for a little more. The land isn't his. He's a thief.

Tim: Does anybody ever show up on their own land and find that all of their trees are gone? Does that ever happen?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): Yes. In a flood.

Public/Unidentified female participant (Focus Group Renal): When the river rises.

Tim: No, no. When somebody has taken it all.

Islande: No, let me explain, if he takes a little, next day he takes a little more. Eventually, you might find there's nothing left.

Public/Unidentified participant (Focus Group Renal): There will be something left. A thief can try to take as much as he can, but the owner will eventually catch him.

Public/Unidentified participant (Focus Group Renal): (silence)

Marco: But, in what season do people make the most charcoal?

Public/Unidentified participant (Focus Group Renal): All the time.

Islande: Do you ever sell wood to bakers for making bread?

Islande: Hmmm!

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): No, that's not likely.

Islande: Do people ever come to get wood with a truck to take it to the city?

Public/Unidentified participant (Focus Group Renal): In boxes.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Yes, they do it all the time.

Islande: What kind of wood do they buy?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): All kinds, you understand? To fill up the trucks and take it to Port-au-Prince, that kind of thing.

Tim: Do they sell it in Jeremie, too?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Charcoal in Jeremie?

Public/Unidentified participant (Focus Group Renal): Yes.

Islande: But, where do they take most of it to sell?

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): Port-au-Prince.

Tim: They don't sell any in Les Cayes?

Public/Unidentified participant (Focus Group Renal): No.

Tim: They just go right past Les Cayes without stopping and go to Port-au-Prince?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: Generally, if a bag of charcoal sells for 60 *dola* here, how much does it sell for in Jeremie?

Public/Unidentified participant (Focus Group Renal): 80 *dola*.

Tim: 80, and it sells for 60 *dola* here, you're telling me?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: For every 80 *dola*, you get 20 out of it?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: How much does it cost to transport it?

Public/Unidentified participant (Focus Group Renal): Oh man, like 15 *dola*.

Tim: Wow! So you're only getting five *dola*!?

Public/Unidentified participant (Focus Group Renal): : (laughter) Yes, you're going to get five *dola*.

Tim: Wow!

Public/Unidentified participant (Focus Group Renal): There's not a lot of profit in it.

Tim: So you're not likely to do that?

Public/Unidentified participant (Focus Group Renal): No, we don't do it.

Public/Unidentified participant (Focus Group Renal): We don't go to Jeremie. I go to Port-au-Prince.

Tim: But, so, who sells charcoal in Jeremie, and other places?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They get it from Grand Vincent.

Tim: Grand Vincent.

Public/Unidentified participant (Focus Group Renal): And, also closer to the city.

Tim: You never send off charcoal by boat?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Long ago, when there were boats. Now there aren't any boats that come.

Tim: Sailboats?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, sailboats.

Islande: And sailboats, in sailboats, you don't do that any more?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): That was a long time ago. A long time ago.

Islande: Now you have trucks that come get it right here, right at your door.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They come to get it here, load it up, and take it away.

Islande: How many trips does a truck make in a week? OK! How many trucks come pick up charcoal here?

Public/Unidentified participant (Focus Group Renal): Several trucks.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): In a week, when there are goods to transport, we can have five or six trucks come.

Tim: Do you let people buy on credit?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): The truck, yes.

Public/Unidentified female participant (Focus Group Renal): I can't support the children. And the credit, they carry it for us and when we unload it we pay them. When we arrive at the depot we unload the goods and we get paid by the owner of the depot, then we pay.

Tim: That's when you go?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, when I go.

Tim: And the people who stay here, you take it on credit, you transport it, and you bring the money when you return?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, I bring the money back with me.

Tim: Now, if number 15 has some charcoal, you have a sack and you give it to number 19 to carry and sell for you.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, I sell it...

Tim: With nothing, without making one *goud*, then you bring back the money?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Islande: Do you ever lose money on the charcoal?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Tim: How does that happen?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, a thief gets you.

Tim: Thief? People steal from you?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): You sometimes sell the charcoal, and you get robbed. You come home without one *goud*.

Marco: They take your money, not the charcoal.

Tim: They take it?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, if they don't kill you..

Tim: Has that ever happened to you?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): No, that hasn't happened to me, yet.

Tim: Has that happened to you?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No.

Tim: Has that happened to you?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): No.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): If I sell that guy charcoal, he pays me, and he goes to sell it in Port-au-Prince. My money is safer than his. He's risking his money, taking on risk.

Marco: Do big resellers ever come from Port-au-Prince to buy charcoal here?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: What did you say just now?

Islande: He doesn't risk his money, he sells here for 60 *dola*, they pay him. The person who goes to sell in Port-au-Prince is the one who takes on risk. He's at risk of having an accident, or getting robbed.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): That's what I mean exactly.

Tim: OK. But now, #18, if he goes with other people's charcoal, and he gets robbed, he doesn't have to pay the other people.

Public/Unidentified participant (Focus Group Renal): (Laughter) He's in hot water!

Tim: You're on the hook, you have to pay.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): If I'm the one who sold to him, I could say he wasn't really robbed, even if he might have been, and I could insist he pay me.

Tim: Yes, I see.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): You get it?

Tim: OK. How much money will you make if you transport it for #15, how much money will you take from the sale of his charcoal? How much profit will you make on it?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): If I carry it for him I won't take money for it.

Tim: He's family?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes.

Tim: And if you carry it for someone who's not a relative?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): No matter who it is, if I carry his charcoal I won't take money for it.

Islande: You carry it for each other?

#8: Yes, one person carries for another, no need for money.

Islande: Ah, OK.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): What's even clearer, if I have 20 bags of charcoal I might sell him 10, and then have him sell my 10 for me.

Islande: Ah, OK!

Marco: Hmm. There he gets his profit.

Islande: No, he gets something else out of it. He sells him 10 bags, and then says, « Please, sell the other 10 for me »

Marco: He gets profit from the 10 he sells him.

Islande: Hmmm.

Marco: Yes.

Islande: Yes, have to know the place to go there.

##Wood Fuel

Islande: And, I have one last question. What kind of wood do you use to cook. Do you use charcoal or wood to cook?

Public/Unidentified participant (Focus Group Renal): We use both. We burn wood, we burn charcoal.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): We use dry wood more because, you know, we live in the countryside.

Islande: What kind of wood do use to cook at home?

Public/Unidentified participant (Focus Group Renal): To cook... all kinds of wood. Any dry wood.

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Log Wood, hardwood (dinn), Spanish wood. We use all of those.

##Stealing Wood to Make Charcoal

Islande: There is a saying, I'm not sure if people say it here?: "*chabon zepòl*"

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): "*Chabon zepòl.*" Yes, we've heard it before. (Translates literally to charcoal shoulder, likely the practice of gathering wood from wherever you can find it).

Islande: How do they do it here?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): People transport it on their backs. They collect wood piece by piece as they go along.

Audience: You gather enough wood until you have a pile.

Marco: Is there any state-owned land here?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): No

Tim: Is this practice accepted? What do you think of people who gather wood like that?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): "*Chabon zepòl*"?

Tim: Yes

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): I don't see it very often...

Marco: Do you agree with it?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): I'm not crazy about it.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, it's makes for trouble.

Islande: Number 3?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Sure, it's a problem. I want to save the trees on my land for my children. If someone came across my land and cut them, I would take issue with it.

Marco: What would it mean to you?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): It would be a problem if someone cut my trees down. I plan to pay for my children's education with those trees. I'll cut them down to make my own charcoal.

Islande: Ok, so what would you do if you caught someone cutting your trees down?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): I would tell them to never return!

Islande: Does that ever happen? That you catch people cutting wood that isn't theirs?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, people still do it.

Islande: Number 16, what do you do in that case?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Well, I have some land that is far away and difficult to keep an eye on. When I visit it, sometimes I find people cutting the trees and making charcoal.

Marco: Do you ever catch them in the act?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Sure

Tim: What did you do to them?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): I [pretended] to try to buy the charcoal.

Tim: How did they respond?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They said the charcoal cost 300 HTG (60 *dola*) per sack. He still didn't know that it was made from my trees.

Audience: (*Laughter*)

Marco: So what did you to the guy?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): I didn't do anything.

Tim: What did you do to make him pay for the charcoal?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Oh, I gave up.

Tim: You didn't call the police?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): There are some people who will cut a little of the wood on your land and pay you back another day.

Marco: Explain

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): You let them get away with it, because they don't have a *goud* to their name.

Islande: So it is necessity that drives them to cut wood on your land?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, yes

Islande: Yes, Number 20, you were saying that you have had the same problem?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Yes

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): People passing through your garden plot will take whatever they need.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): It's a result of poverty.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): They'll even take Plantains. A friend took them from my garden.

Islande: A friend took your Plantains?

Audience: (*Laughter*)

12. Caring for Trees

##Planting

Tim: Let me ask you a question, do you plant your own trees?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Yes

Tim: When was the last time you planted a tree?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): The last time I planted a tree was in November, I planted two Coconut Palms.

Tim: What about you, number 10? When did you last plant a tree?

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): After the hurricane passed, I planted Coconut(s).

Tim: Let me ask you another question...

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): After that I planted crops in my garden.

Tim: Who is responsible for planting? Is it men or women?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): Men

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Men

#10 (Guiotte Focus Group, Civil Jonas, Male, 28 years-old, 3 Children, Trader, Primary School Diploma): Women farm as well, but it's mostly men.

Tim: And what about you, Number 26? When was the last time you planted a tree? Or have you ever planted a tree?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): I have planted trees. I can't remember when the last time was.

Tim: Ok, who else?

Marco: Number 1?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): On Tuesday I planted to 2 Coconut Palms.

Tim: That's good. What about you, Number 8? Did you plant a tree or not?

#8: No, I didn't.

Tim: You didn't plant a tree?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): I planted other plants in my garden, but no trees.

Islande: What type of crops did you plant?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I planted beans.

Tim: Did you only plant a garden?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I also planted a Mango tree.

Tim: And you?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Personally, I planted Coconut Palms since many were lost in the hurricane. I also planted Avocado trees. Then in November, I planted Bread Fruit trees. A type of Breadfruit called “Kayin.”

Tim: Is that a special type of Breadfruit?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes

Tim: Where did you find the planting material?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I dug it up.

Tim: Where?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I dug it up and planted it during the rainy season. I planted several. Three of them took. Along with the Avocado and Coconuts I planted. There were some other trees we planted, such as that tree over there.

Islande: What type of tree is that?

1: We call it *sanwont*. I don't know the other name for it.

Participants: That's what we call it as well, *sanwont* (Leucena).

Tim: *Sanwont*?

Participants: Yes

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We plant it because it provides shade. When you plant one in front of your house, it casts a wide shade.

31: Almond trees do the same.

Tim: Does it produce anything else?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): No it doesn't yield any fruit.

#16/#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): It's just for shade.

Participants: Animals eat it. It provides forage.

Tim: Only animals eat it?

Participants: Yes.

Tim: And you? Did you plant any trees?

#19 (Guiotte Focus Group, Leon Jasmine, Female, 22 years-old, 0 Children, Farmer, High School Diploma): No

Tim: And what about you, 17?

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): No, I didn't plant any trees.

Tim: 18, did you plant any trees?

#18 (Guiotte Focus Group, Leon Ademise, Female, 78 years-old, 2 Children, Trader, No Education): I planted some Lime saplings.

Tim: When?

#18 (Guiotte Focus Group, Leon Ademise, Female, 78 years-old, 2 Children, Trader, No Education): I planted them after the hurricane.

Tim: Number 15?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): I make charcoal from trees.

Tim: You make charcoal?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): Yes

Tim: But you don't plant trees?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): No

Tim: Number 2?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): I plant trees, because I live by myself. I don't have a husband, so I plant any tree that I come across. I plant Coconuts, Custard Apple, Lime. The Limes that I planted have already started to yield fruit.

Marco: When did you plant them?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): After the hurricane.

Tim: And you?

Public/Unidentified Participant: I generally plant Coconuts and Plantains. I planted more after the hurricane.

Tim: What about you, Number 31? Do you plant trees?

Public/Unidentified Participant: I planted just one Apricot (*Mammea americana*) tree.

Tim: When?

Public/Unidentified Participant: After the hurricane.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Yes, yes! I planted Plantains and Coconuts as well.

Tim: When did you plant them?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): After the hurricane, I planted 3 Coconuts. Insects ate 2 of them. There is an insect under the ground that destroys Coconut Palms.

Tim: What insect is it?

#3 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It's called *mawoka*.

Tim: Why don't you plant *fransik* and *madan blan* [Mangos] if they sell better?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): We can't get them...

Tim: You can't find them?

Audience: Sometimes we plant them, but they don't take.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): The soil is too dry.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We've tried planting them, but we didn't succeed.

Tim: Ok.

Tim: You plant Cedar, Mahogany...

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, we plant Cedar, Mahogany, *mawo*, Laurel (*Lauraceae* family).

Tim: And Eucalyptus?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): That too. We plant all of them. They're all useful.

Tim: Do you ever plant trees to make charcoal?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, there's no need. Trees that make charcoal reproduce/regenerate on their own.

Tim: Is there anything that you would like to add? We will be sure to pass on the information if they decide to provide assistance around trees.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): That's what we need. We lost the majority of our trees. Now that we have participated in this interview, could you ask on our behalf for an intervention for trees?

Tim: Yes, that's what we plan to do. We will submit a recommendation. But we don't know if they will be able to respond to it.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): As you can see, there is a lack of trees. We would ask for your help in reforesting the area again. We lost so many citrus trees, Avocado trees, Mango trees...

Tim: Let me ask you a question, couldn't you start your own tree nursery?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Sure, we're used to running nurseries...

Tim: Then why do you need us?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): We don't have all the expertise.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): There are some people who have more experience than us. People who studied forestry. We are more experienced in planting gardens [than trees]. We could learn from people with experience with trees.

Tim: Ok, so would you benefit from training in tree nurseries? Yes, please go ahead and speak...

#17 (Guiotte Focus Group, Innocent Marie Edeline, Female, 43 years-old, 2 Children, Trader, Primary School Diploma): We also have trouble when we transplant [the trees]. Sometimes they fall sick and we don't know how to treat them. We don't know what causes the sickness: if it is a parasite or something else. But someone with expertise could prevent or treat the issue.

Tim: Ok, I agree.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Another challenge we face in starting our own nursery is that we don't have the right planting material.

Tim: You don't have seeds?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Right, because there are no more trees here. The hurricane destroyed the trees.

Tim: Ok, but you could always purchase fruit at the market and save the seeds.

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): We do. When we purchase Papaya, we save the seeds.

Marco: But do you have a nursery here?

Audience: No

Tim: Was there ever a nursery?

Audience: No

Tim: Never? Not ever in your lives was there a nursery?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Never

Tim: No? Not even EKS/EPER? Who here worked with them?

Audience: No, we had a nursery, but it wasn't right here. It was further down the hill. Sometimes they would bring us seedlings.

Tim: Did you buy them?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): The nursery was by the river. There wasn't a nursery up the hill.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): If you look closely, those trees are from Valery.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Those trees?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, Valery brought them.

Tim: Valery ?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It was Valery that collaborated with EPER

Tim: Was Valery a foreigner?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, he brought Cedar trees, Avocado trees...he brought them to plant here. But there was a heat wave and many of them died. There was a few that survived. We are eager to plant more. We would welcome more trees if an organization provided them.

Tim: Does anyone here plant trees?

Islande: Name them.

Tim: Are you actually planting them? For example Number 18, when was the last time you planted a tree?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): Ah! I'm still, I'm still planting trees all the time.

Tim: So, did you plant one yesterday, last week, last year?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): Yes, I'm always planting trees.

Tim: When was the last time you planted one?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): Well, I planted a tree in December, just two months ago.

Tim: What kind was it?

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): A... a Breadfruit.

Tim: And you, what's your number, 17?

Tim: When was the last time you planted a tree?

#17 (Focus Group Renal, Male, 37 years, 3 children, Mason/carpenter, 4th yr. high school): On January 1, I planted a Breadfruit.

Tim: And you ma'am? No. 2? When was the last time you planted a tree. If you haven't planted one just say you haven't.

#2 (Focus Group Renal, Female, 68 years, 4 children, farmer, no education): I haven't planted any.

Tim And what about you, 20. No. 41?

#41 (Focus Group Renal, Female, 4 Children, Trader, no education): I did not plant any.

Tim: Thank you... 15?

#15 (Focus Group Renal, Female, 2 Children, Trader, 6th Grade): I do not plant any.

Tim: 5

#5 (Focus Group Renal, Male, 63 years of age, 7 children, Farmer, no education): January 1st, I planted two coconut trees.

Tim: And you... 20, the last time you planted a tree?

Island: The last time you planted a coconut tree? The last time you plant a tree?

Marco: It can be any time, it could be last year.

#20 (Focus Group Renal, Male, 90 Years, 4 Children, Farmer, no education): I planted.

Tim: This year, last year? You do not need to know exactly.

Marco: Last year, or some other time?

#20 (Focus Group Renal, Male, 90 Years, 4 Children, Farmer, no education): Last year I planted, I planted a Mango tree.

Tim: A Mango tree. And 16?

Marco: 16, number 16

#16 (Focus Group Renal, Male, 51 year, 8 children, farmer): The day before yesterday I planted three Breadfruit trees.

Marco: This year?

Tim: OK! Thank you 19, you are 19?

#19 (Focus Group Renal, Male, 71 years, 9 children, farmer, no education): Yes, I planted Breadfruit.

Marco In what year?

Tim: This year?

#19 (Focus Group Renal, Male, 71 years, 9 children, farmer, no education): This year.

Tim: Well, so you like planting trees? Do you just leave them to grow on their own?

#19 (Focus Group Renal, Male, 71 years, 9 children, farmer, no education): There are some that just grow on their own.

Public/Unidentified participant (Focus Group Renal): Yes, some grow by themselves.

#18 (Focus Group Renal, Male, 37 years, 2 children, teacher, high school): We planted trees.

Islande: They have been planting Bread Fruit trees?

Public/Unidentified participant (Focus Group Renal): Yes

Tim: How do you get the seeds? Or...?

Public/Unidentified participant (Focus Group Renal): Breadfruit seeds, they grow and we plant them.

##Tree Nursery

Tim: You do not have a nursery, you do it yourselves?

Public/Unidentified participant (Focus Group Renal): You do it on your own.

Tim: You plant them near the house, in a small bag or...?

Public/Unidentified participant Voice: We don't put them in bags. We just put plant them in the ground.

#: It may start growing there in the ground, then you transplant it.

Tim: So you might just find one growing.

Islande: Like a Breadfruit, it makes its own seedlings. You dig them up and replant them.

#: Yes, they reproduce.

Tim: Well, but you don't have any nurseries in the area?

Public/Unidentified participant (Focus Group Renal): No..

Tim: Have you never had a nursery in the area?

Public/Unidentified participant (Focus Group Renal): Yes we have had them in the past.

Tim: When?

Public/Unidentified participant (Focus Group Renal): All through last December.

Tim: Who ran it?

Public/Unidentified participant (Focus Group Renal): EPER

Tim: EPER, OK.

Islande: What did they ask if you had?

Public/Unidentified participant (Focus Group Renal): A nursery.

Islande: What is in the nursery?

Public/Unidentified participant (Focus Group Renal): Cabbage, Carrot, Eggplant, Tomato.

Tim: Oh! For your fields?

Public/Unidentified participant (Focus Group Renal): For the fields.

##Grafting

Islande: Are there people around here who specialize in grafting trees?

Public/Unidentified participant (Focus Group Renal): No, we don't have anybody like that. Who does the grafting?

Islande: You don't graft trees around here?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes, people graft trees, you can make an Orange into a Grapefruit.

Islande: Who knows how to do the grafting?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): People from other places.

Tim: They send specialists? Public/Unidentified participant (Focus Group Renal): Speaking together, unintelligible.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Send information so they can show us how to graft.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They don't do it for us around here, but there are places where they do it. I've seen there are Orange trees that that have really Sweet Oranges..

Islande: But do you ever graft Almond trees?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): ... we don't have a grafting agent, somebody who could do it for us.

Islande: Ah! Nothing... but there are people who know how to do it, you just don't know them?

Public/Unidentified participant (Focus Group Renal): Yes.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Other places?

Islande: No, I mean around here.

Public/Unidentified participant (Focus Group Renal): No, there aren't any.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Well, there are people who do it.

Islande: There are people who do it, #19?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Natacha: Who, who knows how to do it around here?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): And other people know how to do it.

Public/Unidentified participant (Focus Group Renal): Vigo.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Daniel, and Vigo.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, that's in other areas, and Phanor.

Islande: So, it's not actually in Renal.

19: Yes.

Public/Unidentified participant (Focus Group Renal): No, it's not in Renal.

Islande: Where's Phanor?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): At Charles Crossroads, meaning we ask them to come do it for us, for money.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Sometimes they won't even come.

Islande: How much do you pay someone to graft a tree for you?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Say, 250 *goud*, 200 *goud*.

Tim: You do... you pay for that?

Islande: What kind of tree do you use.

Tim: Did you pay people to do that for you?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): No, I had somebody at one time who needed that done. I sent for someone to come do it for him.

Tim: Has anybody here paid somebody to graft trees on their land?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes.

Tim: Who does it?

Marco: OK, among you all, who are here. Among you...

Tim: Nobody here?

Public/Unidentified participant (Focus Group Renal): No.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I have a neighbor who did it.

Tim: OK. A neighbor. OK.

Islande: What did he graft?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Orange. A Sour Orange.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): The neighbor.

Islande: Hmmm!

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): He turned it into a Sweet Orange.

Islande: All of the trees, or in one spot?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Every one of them. He had them cut around the trunk and did it.

##Diseases

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): Number 3. Well, the trees that are most important for us are Mango trees. After that, Breadfruit, Coconut and Soursop – but recently Soursop fruit are spoiled by “*limon*” (type of fungus).

Tim: Did insects eat them?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): No, it was “*limon*.” As soon as they produce fruit, something black covers them and rots the heart of the Soursop, so that they are no longer good.

Tim: They just spoil the heart of the Soursop?

#3 (Guiotte Focus Group, Etienne Jean Mari, Male, 40 years-old, 0 Children, Mason/Farmer, 3rd Grade): After the hurricane, I planted 3 Coconuts. Insects ate 2 of them. There is an insect under the ground that destroys Coconut Palms.

Tim: What insect is it?

#3 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It’s called *mawoka*.

Marco: What is a *mawoka*?

#2 (Guiotte Focus Group, François Telcina, Female, 68 years-old, 4 children, farmer, No Education): *Mawoka* is an insect that tunnels underground and eats the tree’s roots.

Islande: Does the tree die?

Tim: Does it look like a caterpillar?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes, like a caterpillar. Like a maggot.

Marco: It's eats more than trees. It also eats sweet potatoes. It eats everything it can find.

Audience: Yes!

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): It also burrows into yams.

Tim: Is there no way to kill it?

Audience: Maybe. But we don't know how to...

Marco: Because it's under the ground?

Public/Unidentified Participant: There is another insect. A little white bug that makes a nest in the tree. Once it enters the tree, everything rots.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): It's called "*ti mouton*" (little sheep).

Tim: Have many trees been lost this way?

Public/Unidentified Participant: Yes, we've suffered a lot of damage from it.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): More than anything, it eats manioc. And pigeon peas.

Tim: A little white insect?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): A little white insect that is called "*ti mouton*." It also eats peanuts. It sucks the sap from the leaves of the plant, so that it doesn't produce any peanuts.

Tim: What pests affect sorghum?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Birds eat sorghum

Tim: Do birds pose a big problem to growing sorghum?

Audience: We don't really cultivate sorghum here.

Tim: Ok, let's return to wood. You said that you use some trees to make planks?

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): Yes

Islande: How about Grapefruit?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): The hurricane destroyed them all.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No it was the Natcom antennae.

Islande: The antennae? What makes you say that?

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): Since Natcom installed the antennae, the Grapefruit trees...

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, as soon as the antennae arrived all of the Grapefruit fell and rotted.

Audience: And our Oranges. Even the Coffee was lost.

Tim: Coffee as well?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, we lost it all.

Tim: There's no more Coffee?

Audience: No!

Tim: When was the antennae installed?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Oh, a long time ago...

Tim: 2 years? 3 years?

Audience: Longer that!

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Since that time we lost all of our gardens.

Tim: Natcom has only been in the country for 7-8 years.

Marco: But, are you sure the antennae was responsible...?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): That's what people say, but we can't be sure.

Tim: It was around then that harvests started to decline?

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): Yes, it was all ruined. All the Coffee.

Tim: There's no Coffee at all now?

Audience: No, there's no Coffee.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): You'll find some.

Islande: Was the Coffee under the “*skolit*” affected?⁷

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): The “*Skolit*” drained the spring that fed the Coffee.

Audience: Something black spread on the Coffee trees, the same thing that covers the Soursop fruit...

Tim: And you don’t have Cacao either now?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): A few trees remain.

#20 (Guiotte Focus Group, Joseph Marie, Female, 45 years-old, 10 Children, Trader, Primary School Diploma): The hurricane uprooted most of them.

Tim: This [black fungus], it doesn’t bother Cacao or sorghum?

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): No, they are not affected.

Islande: Wait, I would like to understand this issue brought by the antennae. What about sweet Oranges. Do you not have any sweet Oranges in this area?

Audience: No, they were all lost.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Other communities with antennae have reported the same trouble. Even in Santo Domingo they have the same problem.

Tim/Marco/Islande: Discussion of what cell service providers are in the DR: Natcom, Comcast, Orange or Viva.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): It’s Natcom, I’m sure of it. Natcom brought this trouble.

#26 (Guiotte Focus Group, Etienne Marie Carole, Female, 42 years-old, 7 Children, Trader, 9th Grade): That’s what we hear. We don’t know what to believe, just that there used to be more Grapefruit.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): Yes, we had a lot of Grapefruit growing up.

#16 (Guiotte Focus Group, Civil Jean Claude, Male, 48 years-old, 3 Children, Farmer, Primary School Diploma): They used to yield fruit in the month of March. But it was always difficult to find customers to buy them all.

#1 (Guiotte Focus Group, Jean Pierre Renel, Male, 38 years-old, 7 Children, Farmer, Primary School Diploma): I remember harvesting them in December and January.

⁷ Full Kreyol sentence: Islande: Èske anba skolit ki detwi kafe ?

Tim: Ok. Is there anything else to add?

#15 (Guiotte Focus Group, Charles Djedson, Male, 24 years-old, 0 Children, Farmer, Primary School Diploma): One thing that I would like to request is something to combat insects. That would be very useful for us.

Tim: Indeed.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): That's what I'm saying. We have a bug that gets onto our trees, and every seed that sprouts, it makes it so it can't grow.

Tim: They get on what?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Our trees.

Tim: All your trees?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, they're black. Black bugs.

Tim: They get on all of your trees?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): On every one of them.

Marco: But what do you want them to do?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): We'd like to find something...

Public/Unidentified participant (Focus Group Renal): Some product...

Islande: They get on the Neems, too?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Everything, as long as it's a big tree.

Islande: Neems?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Here's how they are. See those black leaves, when that happens on a single fruit, it won't grow, the tree won't grow any more. It's like a poison.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Even if you put a little... it's inside the mother, it won't grow any more.

Tim: When did that start?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): How many years ago did that start?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Several years ago.

Tim: Two years ago? Three?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Yes, two years. Two years.

Tim: Before Hurricane Mathew?

Public/Unidentified participant (Focus Group Renal): Yes, before.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): One important thing is that when the fruit are ready, worms get into the Mangoes. We need something to prevent that. You should give us something to fix the Mangoes. It's something that hit the trees. You might have beautiful Mangoes, but you can't find one to eat because they've all got worms. They're no good.

Marco: OK! #16, do you have one last thing to say?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Me?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): I don't really have anything else to say. I think we've reached a good stopping point.

Marco: OK.

Islande: OK. Let me say something about those trees when you see them like that. If you have a lot of fruit you don't want to lose, what do you do?

Public/Unidentified participant (Focus Group Renal): We don't do anything.

Male non participant: Because we don't know anything we can do.

Tim: Yes, you don't have that...

Public/Unidentified participant (Focus Group Renal): We don't know what to do for them.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): We don't know what to do for them.

##Preferring Assistance

Tim: Is there anything important we're missing about trees, anything you think we should know? Something you know, but we don't. Imagine. You're here, you're working, but now you're looking for an intervention, a project that can help you with your trees, what would you ask for, number 19? What assistance would you ask for if there was someone looking to give you a hand?

Islande: What would you ask for, if someone came and offered to lend a hand?

Tim: With your trees.

Islande: Hmmm.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): With trees?

Islande: Hmmm.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): I'd ask them to give me Grigri trees (Bullet trees).

Tim: To give you Grigri trees.

Islande: #19, why do you need them to give you Grigri trees?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): They're good for making houses. They make good posts. That's something valuable.

Islande: Are there any of those trees in the area already?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Yes.

Tim: Grigri, you have them?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): There are some here, yes.

Islande: But, I didn't hear anybody mention these trees earlier.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Bwa woz trees.

Islande: Ah! Woz, Grigri, it has several names. Ah, OK.

Tim: And you, number 5, if someone came to do an intervention with trees, a big enterprise like HEKS EPER, what advice would you give them on how to help you all with trees?

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): What advice would I give them?

Tim: Yes, would you ask for help with fruits, for help with charcoal?

Marco: But only with trees.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): For trees only. Mangoes. We could use that, too, because we've lost a lot of Mango trees. We used to have lots of Mangoes, but not so much any more. We need more Mangoes.

Tim: You mean you would like a nursery with Mango trees?

#Man: Yes, for us to plant.

Tim: Horn Mangoes?

#Man: Blan, francique, for us to plant.

Tim: Franciques, are there people who come here to buy those to export?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): No, there aren't.

Tim: People sell them in the streets. And you, 16, what kind of project would you like to see?

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Well, I'd go into Mangoes more, too. Because, if I could find Francique Mangoes I'd plant them. Madanm Blan, I'd plant them. I have Labich and Kanel Mangoes, but I don't have the other kinds.

Tim: OK, and 15, what kind of project would you want, to help with trees?

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I'd ask for Coconut trees, because in the past we grew lots of Coconuts, but now we hardly have any. I'd do an intervention with them. If they were looking for a project, I'd ask them to do that for us, to give us Coconuts, and Mangoes, too. They're very important.

Tim: OK, 41?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): We need a lot of Avocados, because storms have killed our Avocado trees.

Tim: OK, and now you want a nursery?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Yes, because we hardly have any now.

Tim: 2?

#2 (Focus Group Renal, Female, 68 years-old, 4 children, farmer, no education): Me, I think we need Limes, and Oranges.

Tim: Ah! You said that. 18.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Well, what I think we need is for someone to come graft the few Mango trees we have left, so they can reproduce. Understand? So they could produce nice Mangoes, and people would be able to have them.

Tim: Graft the ones already here?

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, for people to sell, and eat, too.

Tim: Good comments. 17?

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): Me, what I'd ask for is fruit trees, like Soursop trees.

Tim: No, I'm not asking what everybody said about fruit trees. I'm asking what trees interest you the most.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): That's what I'm saying. We have a bug that gets onto our trees, and every seed that sprouts, it makes it so it can't grow.

...

Tim: But, maybe it wasn't clear. Let's put the question another way. What help do you need with fruit trees, and with trees for making boards, and with charcoal. I don't know what kind of aid. You'd prefer fruits?

Piblik: Yes. Rather than boards?

Islande: Rather than charcoal?

Tim: Over charcoal?

Marco: #19, choose one out of those three.

Tim: Imagine I've come here to help you.

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): So, what would I choose among those two things?

Tim: Out of those three things, I come here as the head of some enterprise, some organization, I'm an outsider and I tell you I'm here to help you. I give you three choices: I'll help you with fruit trees, I'll help you with charcoal, or I'll help you with making boards. What would you choose?

#19 (Focus Group Renal, Male, 71 years-old, 9 children, farmer, no education): Well, I'd prefer boards.

Marcos: With trees for making boards.

Tim: Boards, OK. And you, 16, fruit, charcoal, or boards?

Marco: #16.

Tim: 16, boards, fruit, charcoal.

Islande: 16, charcoal.

#16 (Focus Group Renal, Male, 51 years-old, 8 children, farmer): Well, me, as I said, I think Limes, I think support for Limes.

Tim: OK, fruit.

Islande: OK, fruit.

Tim: OK, #20.

Islande: #20

Tim: Boards, charcoal, fruit.

#20 (Focus Group Renal, Male, 90 years-old, 4 Children, Farmer, no education): I need Breadfruit.

Tim: OK.

#5 (Focus Group Renal, Male, 63 years-old, 7 children, Farmer, no education): So, I already talked about Mangoes. I said Mangoes are something we used to have around here in great quantities, but they've been destroyed in storms. So we need to do something to bring them back.

Tim: OK. 15.

#15 (Focus Group Renal, Female, 32 years-old, 2 Children, Trader, 6th Grade): I prefer fruit.

Tim: You're sticking with fruit.

Tim: Ok, #41, you're sticking with fruit.

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Yes.

Islande: And how are you going to make charcoal?

Public/Unidentified participant (Focus Group Renal): We make it with what we have, with whatever bits of wood we have.

Tim: It takes care of itself?

Public/Unidentified participant (Focus Group Renal): Yes.

Tim: OK, 18.

#18 (Focus Group Renal, Male, 37 years-old, 2 children, teacher, high school): Yes, fruit. Fruit are most important for me.

Islande: 41, you said something?

#41 (Focus Group Renal, Female, 42 years-old, 4 Children, Trader, no education): Yes, I did.

#17 (Focus Group Renal, Male, 37 years-old, 3 children, Mason/carpenter, 4th yr. high school): I would like trees for making boards.

Tim: #41 said fruit.

Tim: #17 says boards.

Islande: You both spoke.

Tim: Yes, both did.

Islande: OK!

Male non participant: Excuse me, may I ask a question?

Tim: Yes, ask away.

Male non participant: Because I feel a little uneasy. I'm here, but you're asking everyone.

Tim: I didn't ask you because you weren't here in the beginning. If you have something to say you can say it.

Male non participant: I see everyone has a little thing in their hands. I should have one too, so I can ask questions, too.

Tim: You can ask a question.

Male non participant: I can ask a question? What did you ask them?

Tim: What kind of intervention would you prefer, one with charcoal, with fruit, or with trees to cut into boards?

Male non participant: Trees to make boards?

Marco: Is that what you would choose?

Tim: All... you would choose lumber?

Male non participant: Part boards, part food.

Marcos: Out of those three, which would you choose? You have to choose just one. Which one?

Male non participant: Choose one!

Marco: Chose one.

Male non participant: Fruit. Mango.

Tim: Mango. Which Mango?

Male non participant: Big Mango.

Tim: What kind of Mango?

Male non participant: Mango Madan Blan.

Tim: Madan blan. OK. You think we're good? OK, does anyone have anything they'd like to add? Is there anything important we should know? I'm going to take what we've discussed to the bosses.

Marco: Anything you think is important for us to know.

Male non participant: We have Madan fransique.

Tim: Fransique.

NOTES

ⁱ Un **ménage** se définit comme un **groupe de personnes**, avec ou non un lien de sang, qui vivent ensemble dans le **même logement** (parois et toit) depuis **au moins six (6) mois** et qui **partagent la nourriture** et reconnaissent l'autorité du **même chef de ménage** (homme ou femme). On considère que les personnes qui résident dans le logement depuis moins de 6 mois mais comptent y rester sont aussi des membres du ménage. ECVH – 2001.

ⁱⁱ IFAD. 2014 Rural Poverty Portal. <http://www.ruralpovertyportal.org/web/rural-poverty-portal/country/home/tags/haiti>

ⁱⁱⁱ A more specific summary of education is provided in Tables ## and ##, below

Class	Female	Male	TOTAL
1st Grade	2%	2%	2%
2nd Grade	5%	5%	5%
3rd Grade	6%	8%	7%
4th Grade	7%	6%	7%
5th Grade	3%	6%	4%
6th Grade	8%	12%	10%
7th Grade	5%	3%	4%
8th Grade	3%	3%	3%
9th Grade	2%	7%	4%
10th Grade	0%	1%	1%
11th Grade	0%	3%	1%
12th Grade	0%	2%	1%
High school diploma	0%	1%	1%
At least some University	0%	1%	0%
None	58%	43%	51%
TOTAL	100%	100%	100%

Table EN2: Educational Level of Respondent's Spouse			
Class	Educational level of husband (n=189)	Educational level of wife (n=159)	TOTAL (N=348)
1st Grade	2%	3%	2%
2nd Grade	4%	8%	5%
3rd Grade	7%	8%	7%
4th Grade	6%	10%	8%
5th Grade	7%	4%	5%
6th Grade	11%	8%	10%
7th Grade	5%	3%	4%
8th Grade	1%	2%	1%
9th Grade	6%	3%	5%
10th Grade	1%	1%	1%
11th Grade	3%	3%	3%
12th Grade	2%	2%	2%
High school diploma	2%	1%	1%
At least some University	0%	0%	0%
None	43%	45%	44%
TOTAL	100%	100%	100%

iv

Table EN3: For those legally married, spouse present is legal wife/husband		
Response	Is legal husband	Is legal wife
No	1	2
Yes	95	76
TOTAL	96	78

v

Table EN4: Animals feed intended for					
Animals	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Chickens	5			1	6
Cows			1		1
Horses			1		1
Goat	1				1
Pig	5		1	1	7

Animals	Abriko (n = 109)	Fon Kochon (n = 109)	Voldrog (n = 105)	Wo Ginode (n = 128)	Total (n = 451)
Chickens	1				1
Pig	2		2	1	5
Total	3	0	2	1	6

^{vi} Aid organizations are fond of giving credit and beneficiaries often site credit as something they desire. However, there are also widespread complaints about interest rates. Most financial institutions, such as FONKOZE, find they cannot feasibly give micro-loans for less than 3 percent per month. This amounts to 35 percent per year.

^{vii} There are laws in Haiti that govern and restrict the indiscriminate cutting of trees, but they are not enforced today nor would they be enforceable without inflicting economic hardship on the people living in the region. All over Haiti cutting trees to saw boards and make charcoal is a final recourse in the face of hard times, drought and starvation. This is particularly true in the Grand Anse where virtually everyone depends on wood for cooking fuel and virtually everyone depends on domestic production for lumber supplies.

^{viii} Although petty in terms of international standards, fishing represents a significant part of the household livelihood strategy for some 250,000 men, women and children in Haiti, approximately 25,000 of whom are located in the Grand Anse (MARNDR 2009). The people who live in the fishing communities tend to be among the least educated people in the region and live in marginalized and remote communities. An estimated 92% have not finished high school – compared to 75% nationally (CRFM 2010; EMMUS 2012).

^{ix}

	Per trip	Trips per year	Total per year
Full-time	95.50	311	\$29,700
Half-time	52.41	182	\$9,538
Part-time	127.52	26	\$3,315

^x Also useful resources might be CODEP (Comprehensive Development Project) between Leogane and Jacmel. Farmer to Farmer volunteers provide on-site information and training in small-scale sustainable aquaculture techniques in developing countries.

^{xi} Steps in cheese manufacturing include: 1) standardizing the milk, 2) setting the temperature, 3) adding starter cultures, 4) adding rennet, 5) cutting curds, 6) cooking, 7) draining whey, 8) salting, 9) hooping, 10) pressing, 11) packaging, and 12) aging.