HAITI PRODUCTIVE LAND USE SYSTEMS PROJECT

SOUTH-EAST CONSORTIUM FOR INTERNATIONAL DEVELOPMENT

AND

AUBURN UNIVERSITY

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FARMER NEEDS ASSESSMENT EXPLORATORY SURVEYS

FIELD INFORMATION ACQUISITION GUIDE AND METHODOLOGY

by

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SECID/Auburn PLUS Report No. 8

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FORWARD

This report is one of seven reports representing the work of a multi-disciplinary team led by Anthropologist, Dr. Richard A. Swanson of the University of Arkansas. Additional members of the team included Agronomist Yves Jean, Agricultural Economists, George Condé and Roosevelt Saint-Dic and Animal Production Specialist, William Gustave, assisted by Agronomist and SECID Team Leader, Dr. Frank E. Brockman and SECID Agricultural Economist, Dr. J.D. (Zach) Lea. The team was assisted and supplemented at the individual sites by PADF and CARE staff members.

These surveys were part of the on-going effort by SECID/Auburn University and its partners in PLUS, PADF and CARE, to implement a Monitoring and Evaluation System which orients the project towards activities which will bring about sustainable increases in farmer income and crop production, while conserving natural resources. The surveys also provided information on technologies promoted by PLUS, as they are presently implemented in the survey areas. This document contains the survey instruments used to guide data collection. Their publication fulfills a request to define a methodology for obtaining farmer assessment of project technologies.

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INFORMATION CHECK LIST

This document provides the methodology and question guides used by the SECID Haiti PLUS project Farmer Needs Assessment Exploratory Survey team. The reconnaissance surveys were conducted between May 26 through August 28, 1993 in five regions of Haiti (Cap Haitien, Jacmel, Mirebalais, Northwest, and Les Cayes), within three micro-watersheds selected by the PADF and CARE programs for specific program monitoring and evaluation purposes. Five separate reports were produced from these surveys.

0.0 Methodology

Much of the information being sought through the exploratory surveys is qualitative in nature. This is clear by the objectives which speak of "better understanding farmer attitudes and beliefs", which will require an understanding of the principal production and marketing constraints of the areas identified. The PLUS project wishes to determine "what farmers want" from the project, and how some of these stated "needs" or "demands" can be met through project interventions. Attention will be focused on "focusing on a variety of land use interventions" which could potentially stimulate crop production in a sustainable, ecologically safe manner, while providing increased income potential for the concerned farmers.

0.1 PLUS Project Potential Interventions List

The initial list of PLUS interventions include:

(1) Hedgerows (vegetative barriers on contours). This includes leucaena, sugar cane, pineapple)
(2) Dead (plant material) barriers ("rempe paille")
(3) Rock Walls/Terraces
(4) Gully plugs (Rock and/or Vegetative)
(5) Bio-intensive Vegetable Gardens
(6) Improved Seed (Tamazulapa, sugar cane, corn)
(7) Seed Banks
(8) Individual Trees (Species:
(9) Local tree nurseries
(10) Deep Tillage
(11) Cover Crops (engrain vert)

Needs Assessment Team Additions:

(12) Gully Ditches (Deep) for Water Harvesting
(13) Contour Ditches
(14) Plantain in contour ditches or canals, or gully plugs (also bamboo, rice)

At each field site, both individual and groups of farmers were contacted by members of the team. Because of the large number of individuals (5-8) involved in this effort, it was necessary to split the survey team into three, and sometimes four groups, to

permit better contact with farmers and wider contact within each site. We tried to avoid more than 4 people meeting with the farmer (one of whom would be PADF/CARE "extensionist/guide". The PADF/CARE M/E person for the area would also join one of these groups. Farmer contact with the team was voluntary and an effort was made not to significantly disrupt on-going farmer activities. All questions were asked in a free-style conversational manner with farmers regarding the major information needs outlined below. It was important that answers be followed up (Why? When? Specifics?). Field observations were particularly important and considerable time was spent with farmers on their land, looking at crops, animals, etc. The list of topics and questions provided below was used to guide the survey team in the interviews, with notes usually taken in a personal notebook for later write-up in journal style on laptop PCs. Consideration of these notes formed the substance of the resulting reports.

0.2 Questionnaire Formats

Question forms of two kinds were prepared and a special document prepared with the types of questions asked and the tables used in the field for report preparation.

(1) General guideline questions, with leading questions expected to direct conversations in the directions needed. Team members kept their own notes on the responses to the information obtained. Leading questions led to further questions, as greater detail was sought on specific issues. Here, the inter-disciplinary nature of the team was important to provide a more complete technical understanding of the information obtained.

(2) Prepared Questionnaire/Table Formats. Here, specific information on specific cropping patterns, prices/yields, land & livestock management were prepared and were filled out for several farmers and fields in each area. Purpose: to provide more specific objective data to complement the more qualitative information obtained in the other question formats.

0.3 Persons/Groups Interviewed

Within each of the three sub-watersheds of each PLUS project region, the team met with at least:

(1) 10-15 individual farmers for discussions and viewing household fields with farmer (husband - and wife, where appropriate). About half will be progressive farmers/innovators, half representing "typical" farmer (chosen by PADF/CARE). Main

requirement is their willingness to speak to us, and their ability to express themselves, and having fields on the hillsides of the M/E evaluation sub-watershed.

(2) 2 group meetings (should represent a good cross-section of the farmers in the area) in each micro-watershed should be interviewed. In most cases, a "group meeting" would evolve during one or other of the individual farmer interviews, as passing farmers would join us under a tree or observing some field.

(3) Meet with as many other individual farmers, on their fields, as possible, who have had past experience with soil conservation interventions. Go and visit these sites (even if not within the specific site of the monitoring/evaluation efforts). In some cases, we met such farmers on the way to or from fields of other farmers.

PADF and CARE had both selected 3 micro-watersheds, with area of about 2 km^2, within a total of 5 zones of Haiti (4 for PADF, 1 for CARE) for M/E purposes. The Farmer Needs Assessment team was given 3 days for each micro-watershed. When possible, the first two days were spent on the watershed with farmers, and the third day used for team/project discussion and initial write-up of field notes into a more legible form.

At each field site, the team initially met with pre-selected (by PADF/CARE) individual farmers. These farmers were selected, as much as possible, on the basis of their being considered to be progressive farmers in the site area, farmers who are innovators, farmers who are considered good role models, and project cooperating farmers. When meeting with these farmers, other farmers were sometimes present. This did not pose a problem, but the focus of these early interviews was to obtain insight into a specific farmer household's farming system. If this could be initially held at the farmer's residence, this was considered preferable - to permit the team to observe the "material" well-being of the farmer, in relationship to others in the area, and to also permit some discussion with female members of the household as well. We then would ask this farmer to take us to one or more of his/her fields in the site area for direct observation and further questioning (and filling out information sheets). In some cases, it proved more convenient to conduct individual farmer interviews at the field locations, asking questions and taking measurements there. On the way to such fields, we would often stop and discuss other fields/plots, even calling over the farmer of the field if available. The on-field observations and questioning often took more than 2 hours.

During the first day or two, while working with the first individual farmers, arrangements were made to meet with at least two small groups of farmers in the area during the coming days. Rather than the entire team organizing a meeting with one large

group for a "meeting", it is important that it be understood that the meetings would be informal and small (4-5 farmers). One such group meeting would be held by each of the two field teams at each site. These meetings would not last longer than 1 hour, and usually led to contacts for further individual, more intensive interviews on field locations.

If farmers in the area of the field site were found to have had experience with past program interventions (similar to those listed above), or if farmers, on their own have practiced any interventions of this nature, these individuals were particularly identified early on in the site visit, with plans made to visit with them at the fields concerned during the survey visit to develop information about past experiences, what has worked and why, what has not worked and why, with an attempt to quantify positive gains to production and income as a result of these interventions.

0.4 Survey Team Information Sharing

Team information sharing took place in several ways. The drive to and from the sites were always well used in sometimes lively discussion. At the end of each day, a short session (up to an hour) was held back at the location where the survey team would be spending the night, during which time we would discuss the days activities, significant issues about which we had learned, modifications which might be needed in the program or question formats for subsequent visits. This could also take place around the dinner table. Each team member was expected to try to keep a daily journal on significant things learned, written every evening on a laptop provided for this purpose, and organizing information obtained in that day's field notes. To the extent possible, each team members also began writing sections for the draft report in an on-going fashion, so that when the ten days reserved for each survey region were over, portions of the report would already be in preparation for the initial draft. Because of the long and hot days spent in the field however (10-12 hours), team members were too exhausted to do much in the late evening. It is for this reason that we early on attempted to reserve the third day (of each watershed) for better write-up of field notes on our laptops These could then be printed out and passed around for comments. This material was then more useful during the final week in preparing the initial draft of the final report. Team members were expected to review each other's draft reports during this time to provide additional insights and comments. By the end of the week following the survey in each field site a rough draft of the report for each zone was completed.

1.0 General Description of Micro-Watersheds

Different team members will be asked to obtain these data from secondary sources, or through their own efforts (speaking to project field personnel and others) during the course of the field work. This information will be provided at the beginning of each report as a general introduction to each area.

1.1 Location

Cite location with reference to a map, noting location of communities or households, and number of households and population concerned. How does one reach this area and what are distances involved from major centers? What is the extent of in or out migration, from where or to where are people moving? Approximate size of households in area.

1.2 Physical Features

Describe physical features of the watershed, topography (slope), vegetation, topography, size of watershed, vegetative cover, orientation of watershed (north/south facing slopes) and observe/question if cropping patterns are different in different parts of the watershed area.

1.3 Climate

Describe climate, onset and termination of rainy season, long term rainfall averages, if available, rainfall characteristics of past few years.

1.4 Soil Types

Describe major soil types and agricultural production zones common to the watershed area.

1.5 Land Values and Tenure

Brief description of land tenure in area. Are the majority of fields owned by those using them (propriete, indivise)? Are the number of people sharecropping increasing or decreasing? Are the number of people renting fields increasing? During which seasons and for which crops? What factors determine the value of land? Give examples of land sales, where possible.

1.6 Infrastructure

Briefly describe roads, schools, health facilities, markets, transport options, major surpluses and deficits of the area, access to agricultural inputs, in any (from where do these come)?

1.7 Extension

Describe the nature of past program intervention efforts in this area. Which organizations? What have they done? What worked and didn't work? Any current evidence of this during our field visits? If so, obtain detailed information about such interventions.

TABLE 1: COMPARATIVE INDICATORS BY WATERSHED

ITEM \ AREA	BEDORET	CASTAGNE	LEBLANC
Département Arrondissement Commune Section Communale			
Resident Households			
Persons/Household			
Elevation (meters)			
Rainfall (X) (mm)			
Temperature (X)			
Soil Characteristics Erosion Depth			
Cultivated Slopes			
Land tenure			
Land value (.32ha,1/4cx)			
Land rent (.32ha,1/4 cx)			
Pressure on Hillside Land			
Daily Labor Rate			
Important Infrastructure in Area			
Key Sources of Income			
Key Consumption			
Key Livestock			
Handy craft			

2.0 Opportunities

List Opportunities which farmers have to improve their well-being (whatever the domain-crops, livestock, outside work, special skills, etc.)?

What do they consider their best options today for "making money", improving their lives, etc. These should be ranked (within the group meetings, after discussion)?

Are there any agricultural products which are transformed in some way within the area, before taking to the market, to increase value at time of sale?

You know that the (PADF, CARE) project is here to help your community. What kind of assistance do you think would be the most important for you, and why. Any others?

What kind of assistance do you not wish, and why?

3.0 Unrealized Possibilities

List Endeavors which the Farmers would wish to exploit, but can't, because of some constraints or other? Be sure to ask women this question as well.

What time of year is cash most scarce? Why?

What time of year is cash most available? From what sources?

What time of year is labor most scarce and why?

5.0 Program Interventions

Ask the farmer about various program interventions to learn, first of all, if he (they) are familiar with them, whether or not they are using any of them. Ask about results? Why there are not more of them? From extensionists or program technicians or other farmers, take names of people who will show the team their fields (with these components), or make arrangements to meet people responsible.

Familiar?	Present?	Results?	Negative?
(1)	Hedgerows (vegetative barrier on contours)		
(2)	Dead (plant material) barriers		
(3)	Rock Walls		
(4)	Gully plugs		
(5)	Bio-intensive Gardens		
(6)	Improved Seed (Tamazulapa, Garden crops)		
(7)	Seed Banks		
(8)	Individual Trees (Species:		
(9)	Local tree nurseries		
(10)	Deep Tillage		
(11)	Cover Crops		

TABLE 5: HILLSIDE CONSERVATION MEASURES, CROP PLACEMENT

Watershed:			
Dead Vegetative Barriers (Traditional)			
Dead Vegetative Barriers (Modified - PADF)			
Contour Ridging			
Hills (for planting)			
Contour canals			
Mulching			
Gully Plugs: Rock Vegetative:			
Rock Terraces			
Vegetative Barriers			
Fruit Tree crops, Plantain, Banana, etc.			
Rice behind established terraces in Gullies			
Livestock and Conservation Link?			

Special Questions for Plots having Soil Conservation Interventions

Name of farmer_____

Nature of soil conservation structure?_____

How long has this been here?_____

Who did this work?(combite, rampaneau, squad, associée, individual, etc)_____and why was it done?
_____

Did establishing these structures cost anything (beside labor) to the farmer(eg. for food and drink)?_____Estimate how much._____

How many cx of land are covered with this?_____

After establishment of the structure, did farmer experience any increase in crop yields? _____ If yes,
for which crops?_____
nature of yield increase (50%, 100% more?)
_____

Has farmer cultivated any crops here now that he could not cultivate before this work was done?

Has this land increased in value as a result of these structures? Explain. Try to quantify.

Estimate probable increase in value of production on this unit of land for farmer (if any)_____

Depth of soil behind terraces (use metal rod or bore).

Breadth of flat band behind the terrace?_____

Has there been any change in cropping system since this work was done?_____

Land Tenure Category of this land_____
Would the farmer have done this on other categories of land (eg. météyage, location, etc.)

Look at plots around this area to observe what other farmers are

doing. Are they doing same thing?_____
Major crops in this field_____and how placed?_____
_____ _____
_____ _____
_____ _____

6.0 The Farming System

6.1 General

What have been the greatest changes in the farming systems in this area, over time?

Are more crops grown now for the purpose of sale than in the past?_____ If yes, which crops?_____

If yes, does this mean that these farmers must also purchase more food crops than in the past? Explain._____

Crops: TABLE 2: CROPPING ASSOCIATIONS & TIME LAND IS UNDER CROP COVER, WHERE FREQUENTLY FOUND

AREA	ASSOCIATIONS	GROWING CYCLE Months	SLOPE[1]
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			
#9			
#10			
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			
#9			
#10			
#1			
#2			
#3			
#4			
#5			
#6			
#7			
#8			

[1] We defined slope into four classes: (1) Level: 0-5%;(2) Gradual: 5-20%; (3) Medium 20%-40%; and (4) Steep: 40% - 75%+.

How do yields of present crops compare to year past?

How is farming different today than in past years (new crop varieties, new animals, etc.)?

How is farming different now from years past? Explain advantages or disadvantages and reasons.

Have there been any important new farming practices introduced into this area in recent years?

Are there any crops or specific varieties which used to be wide spread among farmers in this area, but are now disappearing or much less important?(Y/N)_____ If so,, which ones, and why?

_____

Have certain crops become more important in recent years?

Do farmers, each year, specifically look for new varieties?
If so, where do they look?_____ What are they looking for?

_____

TABLE 3: CROP VARIETIES AND PREFERENCES

AREA	CROPS	VARIETIES	ORIGIN	INTEREST

TABLE 4A: CROPPING CALENDAR _____

YEARS	1992	1993	1994
cult\month	M A M J J A S O N D J F	M A M J J A S O N D J F	M A M J J A S O N D J F
corn			
sorghum			
bean			
congo bean			
rice			
sweet potato			
taro			
cassava			
yam			
sugar cane			

Household Fields

How many "jardins" does the farmer have?_____. Starting with the largest plot, please describe these using the following table, before visits with the farmer to these plots.

(1) Located on : Te mon, te plen, planton (give elevation)
(2) Topo: flat, gently sloping, very sloping (give slope)
(3) Carreaux
(4) Crops first season
(5) Crops second season
(6) Système foncier (acha, eritye, indiviz, femaj/potek, meteyaj)
(7) Est. Value of Land

Nimewo Pasel	Situe	Topo	CX	1st Saison	2eme Saison	System Foncier	Pri Val
1							
2							
3							
4							
5							
6							
7							
8							
9							

What percent of total farm area above does the household control on a long term basis?_____Describe those plots where the most change takes place._____

Total area of Household Farm:_____cx.

DECIDE WHICH PLOTS ABOVE SHOULD BE VISITED AND FOR WHICH FULL DATA SHEETS WILL BE FILLED OUT

What are the most important crops cultivated? And what are most important diseases/pests associated with each? % Damage last year?

		Diseases/Pests	% Damage
#1	_____	_____	___
#2	_____	_____	___
#3	_____	_____	___
#4	_____	_____	___
#5	_____	_____	___
#6	_____	_____	___
#7	_____	_____	___
#8	_____	_____	___
#9	_____	_____	___
#10	_____	_____	___

Which crops usually provide the most household income? _____

What are the major problems hindering increased crop production in this area (O.P)?

_____
_____
_____
_____

How are farmers dealing with these problems? How can each of these be addressed?

What makes it difficult for the farmers to deal with these constraints?

6.2.1 Crop Management

Are there any activities performed by men on fields which are not usually performed by women? Yes/No____
If yes, which activities_____,_____,_____
for which crop _____,_____,_____

Do woman manage the production and sale of any crops? _____
Which crops? (if the same as men, say so)_____
Are there any crops women grow that men do not grow?_____
Are there any crops men grow that women never grow?_____

Which food crops are purchased by most households during the year? Why is this? What time of year.

For each of the major crops cultivated, where do farmers usually obtain seed for planting (saved from own fields, purchased in market, other)?

_____
_____
_____
_____
_____
_____

Are farmers ever short of seed at planting time?_____Why?
For which crops?_____

Does early or late starting of rains effect in any way what a farmer will plant? Explain.

For which crops do farmers have the greatest problem in storing harvest?_____

How are these crops stored? (in what form)_____
_____

Inputs: What kind of fertilizers do farmers in this area use, if any?_____
From where do they come?_____
For which crops are these intended?_____

Have you ever adopted a new farming practice/crop variety, etc. from something you observed elsewhere? Explain.

Do you now do anything new or different on your fields, or with your animals, from other people in this area?

SPECIFIC FIELD INFORMATION

_____ Area

Crop arrangement and spacing:
- maize planted at _____ cm. with ____ plants per hill (up to ___ seeds planted)
- bean density: ___ plants/m2
- pigeon pea: ___plant every _____

Yields Ratio:
- maize: 1:_____ marmites
- beans: 1:_____ marmites
- pigeon pea: 1:____ godet (small metal cup)

Planting Rates for 1/4 cx. field (.32 ha.)
- maize: ___ marmite

- red beans: _____marmites
- black beans: _____ marmites
- taro: _____crowns

6.2.2 Crop Marketing

Do Women sell their own crops at the same time that their husbands do? Any variation by crop?

Does the household sell its produce sometimes in large quantities, or usually in small quantities? Define large and small.

For which produce do farmers think the marketing outlet is good? Why is this?

For which crops do farmers think the marketing outlet is very poor? Why is this?

What do they think could be done to improve this?

PRIX DE FERME

prod. \ bassin						
	low	high	low	high	low	high
Corn marmite						
beans marmite						
yam sac						
cassava sac						
pigeon pea panier/marm.						
plantain regime						
taro panier						
patate sac						
peanut marmite						
breadfruit marmite						
cowpea marmite						
cashew marmite						
coffee bidon/lb						
cocoa lb						
mangoes panier						
citrus sac						
sweet cassava panier						

LEVEL OF CONSUMPTION AND SALE BY WATERSHED

Crop/Watershed						
	cons.	sale	cons.	sale	cons.	sale
corn						
beans						
cassava						
pigeon pea						
yams						
plantain						
citrus						
breadfruit						
mangoes						
peanut						
Sweet cassava						

Note: Do not forget to ask what proportion of last seasons yields were used for the next season's planting needs, if any.

6.3 Livestock

LIVESTOCK PRODUCTION IN THE _____OF HAITI

Watershed:			
animals			
feed cattle goat pig			
season of low availability cattle goat pig			
health & care pig			
period between farrowing cattle goat pig			
separation age cattle goat pig			
starting to milk a cow			
milk production			
size of litter goat pig			
marketing cattle goat pig piglet milk breeding pig			

Table __: Feed and seasonal availability for pigs

	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
avocado												
bread fruit												
corn												
bran												
mango												
palm												
fallow												

Is there any veterinary care available for animals? _____ If so, for which animals, and what kind?

Who normally cares for animals during the day?_____
Which ones?_____

Are there particular periods of the year when you might be more likely to sell one or more of your animals? _____ Which ones and why?

When you purchase an animal, where do you usually get it? Give specific examples of those currently owned?

In a time of crisis, when food or cash is needed, which kind of animal is sold first_____second?_____

Which ones are more often eaten within the household?
_____

Are some kinds of animals/fowl difficult to sell? Explain.

Where do most animals get their water in dry season_____ or rest of the year?_____

Do you feed your animals any of your household crop production?____
If so, to which animals_____
and when_____?

Was there a time when you possessed more animals than you presently do? Explain.

Why don't you have more animals than you presently do?

Is there a time of the year when animals are more expensive than at other times? When and for which animals?

A.- TYPES D'ANIMAUX / FORME DE POSSESSION / OBJECTIF DE L'ELEVAGE

1.- Est-que le paysan a ses propres animaux?
2.- Est-qu'il fait le gardiennage?
3.- Est-qu'il donne ses animaux en gardiennage?
4.- Dans quel but il fait l'élevage?

B.- ALIMENTATION DES ANIMAUX / LE CALENDRIER FOURRAGER

1.- Pâturages et cultures des fourrages

1.1.- Quels types d'animaux qu'il amene sur les Pâturages?
1.2.- Quels sont les herbes qu'il trouve plus fréquemment?
1.3.- A quel époque il trouve plus facilement l'herbe?
1.4.- Quel est la période de sécheresse?
1.5.- Est-qu'il fait la culture des fourrages et quels types d'herbes?
1.6.- Comment il fait pour donner à manger à ses animaux en période de sécheresse.

2.- Stabulation

2.1.- Quels types d'animaux qu'il maintient au "jouk"?
2.2.- Est-qu'il achète des aliments ?
2.3.- A quelle époque il maintient ses animaux en stabulation?

3.- Résidus de culture

3.1.- Quels sont les Résidus de culture qu'il donne a ses animaux?
3.2.- A quelle époque de l'année il distribue les Résidus de culture?

4.- Les arbres et arbustes fourragers

4.1.- Est-qu'il distribue des feuilles d'arbres aux animaux
4.2.- Quels sont les types d'animaux qui reçoivent les feuilles d'arbres?

C.- SANTE ET SOIN DES ANIMAUX.

1.- Les maladies

1.1.- Est-ce qu'il y a des maladies qui frappent souvent les animaux?
1.2.- A quelle époque ces maladies arrivent?
1.3.- Est-ce qu'il y a des problèmes avec les tiques?

2.- Les soins
2.1.- Est-qu'il donne des vaccins, des vermifuges, des antibiotiques?
2.2.- Est-qu'il y a un vétérinaire dans la région?
2.3.- Est-qu'il y a des difficultés pour donner l'eau aux animaux?
2.4.- Combien de fois par semaine il donne l'eau a ses animaux?

D.- REPRODUCTION

1.1.- A quel age la femelle a eu sa première portée?
1.2.- Combien de temps après elle a eu sa deuxième portée?

C.- PRODUCTION

1.- Production de lait
1.1.- Combien de temps après la mise-bas il a traie la vache?
1.2.- Pendant combien de mois il a traie la vache?
1.3.- Combien de fois par semaine il traie la vache?
1.4.- Quelle quantité de lait il recueille à chaque traite?

2.- Production de viande et d'oeufs

D.- COMMERCIALISATION ET AUTOCONSOMMATION

1.- Le lait est-il vendu?
2.- Quel est le prix?
2.- Quelle proportion est consommée par la famille?
3.- Est-qu'il des animaux qui sont consommés par la famille?
4.- Est-qu'il y a des problèmes pour la vente des produits des animaux?
5.- Quel est le prix actuellement des animaux et antérieurement?

E.- INTERACTIONS ENTRE ANIMAUX ET CONSERVATION DES SOLS

Quels sont les impacts des animaux sur la conservation des sols et le maintien de la fertilité des sols?

F.- CONTRAINTES ET PERSPECTIVES POUR L'ELEVAGE DANS LA REGION

1.- Quelles sont les principales contraintes pour le développement de l'élevage?
2.- Est-qu'il y a une diminution du cheptel dans la région?
3.- Qu'est-ce qu'il faudrait faire pour améliorer l'élevage dans la zone?

6.4 The Land

Is it possible to purchase land for farming purposes in this area?

How much do different kinds of land sell for (use 1/4 cx unit)?

(1) land on hillside fields_____
(2) valley flat land (good for rice, cane)_____
(3) other_____

How have prices been increasing? Can you give examples?

How much does it cost to rent 1/4 cx. land? _____Is this for only one season, one year, or how is arrangement usually made? Are there any conditions on the kind of crops which can be cultivated?_____

How much have prices for renting land increased? Can you give examples?

Are certain kinds of plots difficult to obtain for renting?

What are the sharecropping arrangements between landowner and sharecropper here?_____

Are there any conditions on the kind of crops which can be cultivated by sharecropper on this land?_____

How are terms for planting long cycle crops arranged (plantain, pigeon pea, manioc, etc.)_____

What about existing fruit trees and other trees on this land?

Are certain kinds of plots difficult to obtain for sharecropping?

Les paysans afferment-ils or prennent-ils en métayage plus de terres aujourd'hui qu'il y a dix ans?_____Explique.

La quantité de terre cultivée varie t'elle en fonction direct de la disponibilité en main-d'oeuvre, ou en disponibilité de terre?_____ Which is the greater constraint?

Combien d'hectares possèdent les plus grands propriétaires de la zone?_____

Est-ce que il y a des terres irriguées ici?
Source d'irrigation._____
Type d'irrigation_____

What proportion of the land that is cultivated each year by a household is actually:

acha/owned_____
érityé/inherited_____
indiviz_____
femaj/potek_____
météyaj/moitié_____

If someone wanted to purchase a 1/4 carreau of land for cultivation purposes, what steps would one take?

6.5 Labor

For which field activities is outside the family most often used in this area?_____

During what time of the year is this?_____

What kind of labor groups can one find in this area (combite, squad, corvée, associée, etc.). Describe each and how they are used, number of people usually participating, whether paid or not, whether food is given or not (and how often), etc.

_____
_____
_____

Who is able to afford hiring extra labor?

How much does it cost? Give specific examples for activities on 1/4 cx. plot.

What are the most important off-farm non-agricultural labor (paid) activities for men:_____,_____,_____
for women:_____,_____,_____

6.6 Fuel

What is the principal source of cooking fuel in this area?_____

From where does it come?_____

Cost per unit locally?_____

Who gets the household's supply of wood for fuel?_____

How far do people go to look for firewood?_____

What type of tree(s) provide the best wood for firewood?_____
What type of tree(s) provide most of firewood used?_____

6.7 Irrigation

Are there any crops which receive irrigation water in this area?
What are these crops?_____

What are the major problems associated with irrigated lands here?

How much does a 1/4 cx.of irrigable land cost to purchase:_____
to rent:_____

Is there a water users association to regulate the use of irrigation water?_____ If so, explain established rules.

Field Visits (for each "jardin" visited - see sheet filled out for purpose of listing these)

Field Site:_____

Field #_____ of _____

Size in Cx._____

# of years this plot has been continuously cultivated by this farmer?

Orientation of Field_____Season/Month_____

% Slope, position on slope, elevation, soil type, color, tilth, apparent parent material (limestone, basalt, drainage, evidence of erosion, symptoms of nutrient deficiencies/toxicities on plants.

Describe any soil conservation measures taken on this plot.

Are there any soil conservation measures taken anywhere near this plot. Ask farmer about them.

If farmer has soil conservation measures on his own plot, try to obtain an objective indication of any crop changes which have occurred a result of this action, any increases in yields and for which crops. (twice as much corn produced on this plot, cultivate sweet potatoes here now, when had stopped because of lack of moisture, etc.)

Observe present crops. Ask if other crops have already been harvested from this plot or will be planted this season.

Crops	Spacing	Distribution
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

What crops does the farmer expect to plant during the next season? And when does this begin?

What crops were planted during the previous season, and so on, back into time. Try to reach a fallow period. What does the farmer consider to be a fallow period?

Does he use the plot for other purposes during a fallow period (if any)? Otherwise, look around, and see if any plots appear in fallow, and ask about them and why farmer isn't doing this on this plot.

years/seasons fallowed before present crop rotation just described.

years/seasons farmer expects to fallow field at end of present rotation before cropping again.

Note for all crops on this field (ask about particular varieties)(obtain planting sequence, relay cropping, etc.):

Crop Week/Month Planted Date of Expected Harvest

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Would he prefer some other varieties of these same crops? With what characteristics?

When was the period this plot was cleared (if after a fallow), soil prepared for planting and types of operations (eg. deep hoeing followed by second light seedbed preparation or ridging, etc.)
When were weedings done? Was weeding combined with planting relay crops?
field preparation_____
planting_____
weeding_____
harvest_____

Who performed these activities (rampaneau, combite, job)?

Ask about any major plant disease or insect problems. Ask questions about frequency and importance of disease or insect problems.

Sketch spatial arrangements:

(1) Soil structure (ridges, beds, mounds). Note size (length, width, height) and distance between.

(2) Distance and spatial arrangements of hills (poquets) for each species. Note plants/hill.

(3) Farmer's assessment of present season; previous seasons.

(4) Were the same crops grown here last year at this time? If so, what yields did he obtain for each? (marmites harvested for marmites or 'godets' planted)

Has he changed the cropping system at all during the past years?

Production problems encountered by farmers on this field. What does farmer do about these (if anything).

What soil conservation structures exist? (Rock walls, hedgerows, gully plugs, other (specify)

Species used for hedgerows?

Management of hedgerow:
1= clipped and fed
2= clipped and incorporated
3= grazed
4= other (specify)

What kind of trees are found within this parcel:
1. Fruit trees:_____
2. Non-Fruit trees_____