THE FUNDACEN EXPERIENCE:
FACTORS FOR SUCCESS AND FAILURE
IN A GUATEMALAN LAND PURCHASE-SALE PROGRAM

by

ELIZABETH G. DUNN

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An Institute for Research and Education on Social Structure, Rural Institutions, Resource Use and Development

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All views, interpretations, recommendations, and conclusions expressed in this publication are those of the author and not necessarily those of the supporting or cooperating organizations.
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FORWARD

Land tenure and the distribution of landownership have had enormous importance in Guatemala for centuries. An internally generated land reform, one that grew out of a revolutionary change in political regime, ranks the country with Mexico and Bolivia in the significance of that experience. Since the reform was reversed in 1954, the gravity of social and economic problems traceable to the land issue has increased while the domestic discussion of that problem and its potential solutions has often been stifled.

An exception to this suppression of concern is the effort of the Fundación del Centavo (FUNDACEN, sometimes referred to in English as the Penny Foundation) to promote a market-directed alternative to land reform. FUNDACEN purchases and subdivides large properties and offers them for sale to landless and land-poor campesinos, who promise to repay principal plus interest over a period of years. FUNDACEN also provides the technical assistance and production credit that will allow program beneficiaries to achieve the success that allows repayment.

Elizabeth Dunn organized her research program in the Land Tenure Center’s tradition. To assess the situation as accurately as possible, she went into the field not only to see firsthand what was happening, but also to gather original sample survey data directly from the people involved. Dunn’s research results, conclusions, and recommendations are reported in this paper. The importance of the program analyzed—with the research that identifies both its strengths and its weaknesses—will become increasingly apparent as Guatemala continues to struggle with its land problems.

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The FUNDACEN land purchase-sale program attempts to address the problem of access to agricultural land faced by the rural poor in Guatemala. The program has made land available to over 1,300 families and provides a model for the design of similar public and private reform measures. The ultimate objective is to create independent owner-operators based on cash crop systems. As the beneficiaries pay for their parcels, funds are released to assist other families. The immediate objective is to reach full production rapidly on the parcels. This can conflict with the initial welfare of the beneficiaries and establish institutional patterns that work against the eventual independence of the farms.

The current report is based on 10 months of fieldwork in 1988 and 1989/90 and visits to 25 farms in the FUNDACEN program and in a similar program run by INTA, a Guatemalan government agency. A formal survey was conducted on 10 farms and involved interviews with 144 randomly selected beneficiary households. Beneficiaries were asked about demographic characteristics, cultivation of corn or coffee in the 1989 growing season, fertilizer purchases, output sales, and opinions about life on the farm. Survey interviews were also conducted at the farm level for information about the group.

The initial stage of the program involves the selection of farms and beneficiaries. Although FUNDACEN has generally selected properties well, isolated farms are sometimes chosen, leading to higher commercial and social costs. A serious mistake of the FUNDACEN program has been the failure to provide for the nutritional needs of the beneficiaries in the early years on the farm. The quality of housing is uneven across farms due to a changing housing credit policy. A school and teacher(s) are provided on the farm for those who can afford the school supplies. Attention to health and sanitation is less than satisfactory, and access to medical care may not be possible if transportation is unavailable.

Rapid progress toward full agricultural production has been achieved, but at the cost of beneficiary training and participation in decision-making. Beneficiaries generally do not participate in input selection. Output is often reduced needlessly by the late arrival from the FUNDACEN central office of production credits and inputs. Corn production is discouraged on the farms even though it may form an essential component of the family's nutrition strategy and represent a complementary use of productive resources. Corn provides insurance against price fluctuations and production risks in the cash crop and a hedge against inflation in food prices.

As the farms come into full production, there are second-generation marketing and processing problems to be addressed. The distribution of cash proceeds from the 1989/90 coffee harvest was overly delayed by the FUNDACEN central office, creating conflict and
interfering with the goals of the program. Similarly, a shortage of beneficio capacity led to serious problems on one of the farms in the survey. In order to develop knowledge about marketing, the beneficiaries need to begin to participate in the purchase of inputs and sale of outputs.

FUNDACEN employs an outstanding group of field personnel. The technicians are responsible for all of the activities on the farm, but are under pressure to concentrate on the size of the harvest. In a few cases, there are technicians who fail to comprehend the nature of the program. The regional supervisors occupy a unique position in that they understand both the daily problems on the farms and the constraints faced by the central office. They have been instrumental to the success of the program.

An effective system for providing the beneficiaries with complete information about their credit accounts has not yet been designed. Information and decision-making power is generally retained at the top of a hierarchical system. The formation of permanent subgroups among the beneficiaries on each farm may provide an appropriate institution for beginning the necessary process of decentralization and beneficiary training. Establishing a legal identity for each farm community will also promote a successful transition to the day when the farms operate independently of FUNDACEN. Specific recommendations for improvement of the FUNDACEN program are provided at the close of the report.
INTRODUCTION

The program run by the Fundación del Centavo (FUNDACEN) to purchase farms and resell them to landless campesinos has had a profound impact on the lives of over 1,300 families in Guatemala. Often for the first time ever, these families are experiencing genuine hope for a better life in the future. This hope is maintained in spite of a sometimes intense struggle to satisfy daily subsistence needs. The FUNDACEN program represents a quiet, small-scale land reform that is taking place seemingly without opposition in a country where land reform is politically unacceptable.

As a market-based land reform program, the FUNDACEN undertaking does not rely on government coercion. It operates within existing land markets but opens those markets to low-income farmers. A goal of the program is eventually to become self-financing. The FUNDACEN land purchase-sale program is an example of successful land reform in Guatemala and represents a promising model for other Latin American countries that have significant landless and underemployed rural populations.

The farms in the FUNDACEN program have experienced impressive productivity results in a fairly short period of time. Careful selection of farms and beneficiaries combined with outstanding field personnel and extensive production credit have resulted in the realization and future promise of excellent harvests on most of the farms. The program has succeeded in inculcating a future orientation among the beneficiaries, who are willing to accept sacrifices and invest their labor now in return for the expectation of later benefits.

The beneficiary families experience tremendous changes as they enter the program and progress through the early years. Although they come from a variety of circumstances, they are generally very poor, rural families with no real place to call home and an uneven employment history that frequently involves temporary migration in order to find work. Those who have had a more regular employment history have worked for extremely low wages, often under degrading conditions.

In some ways, the lives of the beneficiaries begin to improve immediately. The family may have a permanent home, however humble, for the first time. There is no longer the need for the family to separate in order for its workers to find employment. The children have a place to go to school. The family has a parcel that can fully absorb its labor, and they are encouraged to believe that they will one day become the owners of the parcel. The hope for a better future begins to take shape in their minds.

Unfortunately, these first years can also involve serious hardship as the new community struggles to secure basic social services. The farm may lack adequate housing, water supplies, sanitation facilities, health care, and transportation services. The social deprivation
in the community is exacerbated when the farm is physically isolated from other population centers.

The income of the family usually improves little during the first years on the farm, and in many cases it may actually deteriorate to dangerous levels. Beneficiary couples may lack sufficient income to provide for the minimal nutritional needs of their children. One of the most serious oversights of the FUNDACEN program has been to ignore the basic subsistence needs of the beneficiaries in those first hard years.

As the farms move into their third and fourth years and the harvests and resulting incomes become more reliable, a major oversight in the implementation of the program becomes apparent. The beneficiaries have begun to pay their debts and the day when they will be expected to operate independently of FUNDACEN inches closer. Yet the beneficiaries know little or nothing about the technical, financial, or commercial aspects of their activities.

Thus, the FUNDACEN program needs to be adjusted so that beneficiaries are provided with the training and experience to make their own decisions. Because of the overriding emphasis that has been placed on the important goal of full agricultural production, no time has been spent on beneficiary training or participatory management. Too little effort has been expended to build the institutions and experience that will be needed in the future. This is where many of the farms are today. The continued success of the program depends on beginning now to prepare for a smooth transition to independence in the future.

**LAND PROGRAMS IN GUATEMALA**

**NEED FOR LAND PROGRAMS**

It has long been recognized that Latin American agriculture is characterized in many countries by an exaggerated inequality in landownership. Guatemala represents a prime example of this inequality; the 1974 agricultural census provides evidence that Guatemala has a Gini coefficient$^1$ of .85, one of the highest in Latin America (Hough et al. 1983, p. 2). While the mere fact that agricultural land is unequally distributed does not necessarily warrant action, there are at least three unfavorable conditions linked to this inequality.

**RESOURCE PRODUCTIVITY IN THE AGRICULTURAL SECTOR.** First, there is reason to believe that the agricultural sector could contribute much more to the Guatemalan economy if land were distributed more evenly. Over the past thirty years, many studies of agriculture in developing countries have shown an inverse relationship between the size of a landholding and its productivity per unit of land (Dorner and Kanel 1971; Berry and Cline 1979; Cornia 1985). Agriculture remains an important sector in the Guatemalan economy, employing 57 percent of the labor force in 1980 (World Bank 1988, p. 282). A more equitable agrarian
structure could provide a vital impetus to the country’s economic development by increasing productivity, employment, and incomes, retaining population in the rural areas, and creating and conserving foreign exchange earnings.

POVERTY AND ACCESS TO LAND. The widespread level of poverty, particularly in the rural areas, provides a second reason to question the current distribution of agricultural land. Poverty affects the majority of the population in the rural areas, where an estimated 83 percent of the people lack sufficient income to provide for their basic needs (Hintermeister 1984, p. 4). Access to land is seen as a critical resource for rural families, allowing them to provide food and income for themselves and their children.

SOCIAL UNREST AND THE GUERRILLA MOVEMENT. A third problem facing the nation is the persistence over years of a revolutionary guerrilla movement. Damage from this movement is not confined to the direct attacks of the guerrillas; the excesses of the military in handling the conflict have drawn heated criticism (Amnesty International 1987). Poverty and inequality in the countryside appear to provide an important impetus to the guerrilla movement. To the extent that a redistribution of land can ease poverty and inequality, it may also help alleviate the pressures behind insurgency and counterinsurgency violence.

FUNDACEN LAND PURCHASE-SALE PROGRAM

DESCRIPTION OF THE PROGRAM. The FUNDACEN program, funded by USAID/Guatemala, represents a politically feasible option for land redistribution in Guatemala and, potentially, a model for other programs both in Guatemala and throughout Latin America. Under this model, land is purchased from willing sellers and subsequently resold to landless or land-poor campesinos, who receive a mortgage financed by FUNDACEN. Begun in 1985, the program currently involves slightly fewer than 30 farms on approximately 6,200 hectares and directly benefits more than 1,300 beneficiary families.

The number of families on each farm ranges from as few as 4 to as many as 250, depending on the size of the farm, with a typical farm benefiting 50 to 80 families on 170 to 270 hectares of land. Each family assumes mortgage and production responsibilities for a specified land area, normally 4 manzanas (2.8 hectares). This designated area of land cultivated by a single beneficiary family is known as a parcel. Farm refers to the large, usually contiguous piece of land purchased in one transaction by the agency and subsequently resold to multiple families. Each farm consists of numerous parcels as well as additional land held for such common uses as roads, housing, and civic functions.

Cash crops are emphasized on the farms, both so that the family will have sufficient income to pay the mortgage and so that it will be possible for them to have a comfortable standard of living once they own the land and it is in full production. The most important crops in the program are coffee, export vegetables, and tropical fruits.
OBJECTIVES OF THE PROGRAM. The program provides for more than just the land and mortgage: beneficiaries receive production credit, the advice of a full-time technician, marketing services, and, depending on the farm, some social services. Often starting with a farm that has been out of cultivation for some time and accepting beneficiaries with no resources and little cash-cropping experience, the program attempts to accomplish an ambitious combination of goals in the short and long term. These goals, at the family, farm, and program levels, often result in conflicts that must be resolved.

SHORT-TERM OBJECTIVES. In the short term, the operative goal is to bring the land into full production as quickly as possible. This is done by planting as much of the land area as feasible in each year, given the constraint of labor or production credit. It normally takes three to four years for a family's entire parcel to be fully utilized. Full production helps to generate the revenues that the beneficiary families need to make improvements in their material well-being as well as to retire the mortgage on the farm and become the owners of the property. Repayment of the mortgage returns funds to the program which can be used to purchase additional farms and benefit new families. An attempt is made to remain cost-effective so that the amount of beneficiary debt and the commitment of program funds can be kept to a reasonable level.

LONG-TERM OBJECTIVES FOR FAMILIES. The long-term objective of the program with respect to the beneficiary families is eventually to "graduate" them as skilled agricultural producers and entrepreneurs. By successfully competing in the agricultural product markets, each family will be able to purchase the parcel and be self-supporting with an income well above the poverty level. The children of the initial beneficiaries will have the option, through better educational opportunities, of seeking off-farm employment so that the parcels do not become subdivided to a subsistence level or smaller.

LONG-TERM OBJECTIVES FOR FARMS AND PROGRAM. At the farm and program levels, the long-term objective is for each farm to evolve so that FUNDACEN will no longer need to have funds invested in mortgage and long-term production credits, in the provision of technical assistance, and in other routine outlays. The mortgage on the land is normally for a twelve-year period. As each farm repays its debts, program funds are released to purchase new farms and benefit additional families. Thus, the farms are to become independent of FUNDACEN, and the land purchase-sale process is to be replicable and self-financing over time.

GOAL CONFLICTS. The combination of trying to achieve rapid production while limiting program costs can create serious problems in terms of the short-term welfare of the beneficiaries. It can also establish institutional patterns that conflict with the intent to encourage the beneficiaries to evolve into self-sufficient producers with strong entrepreneurial skills. These conflicts will be discussed in more detail below in the section on factors for success and failure in land purchase-sale programs.
INTA LAND PURCHASE-SALE PROGRAM

The Government of Guatemala, through its Instituto Nacional de Transformación Agraria (INTA), has a land program that is similar in nature to the FUNDACEN program. Land is purchased by the government and resold to a group of beneficiary families, who have 20 years to pay the mortgage. The program began at the end of 1986, and currently involves about 11 agricultural properties on 5,000 hectares, with 1,800 beneficiary families.

While the INTA program shares some of the goals of the FUNDACEN program, the INTA farms begin with a higher degree of independence and a lower degree of financial support than the farms in the FUNDACEN program. Production credit, normally secured through the Guatemalan national development bank (BANDESA), is less assured. Formal land tenure differs, since provisional land title is issued to the group as a whole, after a down payment of 10 percent has been made. Informally, however, all farms are subdivided into family production units. The INTA program provides some informative contrasts to the FUNDACEN program, as will be seen in the sections which follow.

RESEARCH PROBLEM AND METHODOLOGY

For the INTA and FUNDACEN land programs to deal conclusively with the problem of landlessness in Guatemala, they will need to be expanded a great deal. Those who favor expansion of the programs disagree about the optimal way to organize the new farms in order to best accomplish program objectives. Some favor a more individual model, while others favor a model that involves a higher degree of cooperation or association between beneficiary families. There is also disagreement about whether the farms should be more autonomous or more subject to the authority of the sponsoring agency.

In spite of these disagreements, there is a widely held belief that agricultural productivity is essential for the success of the programs. There is a pragmatic willingness among program sponsors to embrace institutions that promote productivity and efficiency. The purpose of this research is to provide useful economic information on this question of institutional design in agriculture.

On each farm, the beneficiary group relies on institutions to regularize interactions among themselves and with the representatives of the sponsoring agency. Institutions may be either formal or informal; they are the rules and conventions that define acceptable behavior and the penalties for deviating from that behavior. These farm-level institutions, which include the roles played by the farm technician, arrangements for land tenure, and standards for family production activities, modify the set of choices that beneficiaries face when making their production decisions.
The central hypothesis of the research is that farm-level institutions and characteristics of the beneficiary group affect the technical efficiency of production achieved by beneficiary families. More specific hypotheses relate technical efficiency to the following categories of variables: (1) factors that affect the quality of the technical advice given to beneficiaries; (2) formal institutions that influence group interaction and relate beneficiaries to the outside world; and (3) family and group characteristics that permit the families to benefit fully from the opportunity presented to them.

FIELDWORK

The fieldwork was completed in two parts: an initial visit to selected farms in 1988, followed by a concentrated period of survey work in 1989/90. The initial visit was sponsored by the Land Tenure Center, University of Wisconsin-Madison. The second trip was sponsored by a Fulbright Grant for Graduate Study Abroad, with the Land Tenure Center paying those expenses directly associated with the survey. Complete cooperation was given by FUNDACEN, INTA, the Latin American Faculty of Social Scientists (FLACSO-Guatemala), and USAID/Guatemala.

INITIAL CONTACT. Initial observations on the farms in the FUNDACEN and INTA programs were made over a four-week period in May and June of 1988. I visited fourteen farms and conducted informal interviews with beneficiaries and technicians on the farms. The ten FUNDACEN farms that I visited were the following: San Juan Monte Real, El Pino, Venecia, San Antonio Buena Vista, San Nicolás, Patzunuy, Popabaj, Panimaquin, Choaquec, and Sam Greene. The four INTA farms visited were Chuachilil, Monte Llano, Lucerna, and San Carlos Málaga.

The primary objectives of the 1988 fieldwork were (a) to become familiar with the land purchase-sale programs, (b) to visit farms in the programs and talk with beneficiaries, and (c) to determine a suitable research topic. Potential research topics were explored through conversations with the field directors of the two programs, FUNDACEN regional supervisors, technicians, beneficiaries, and AID personnel. There was a high level of interest and controversy surrounding the nature of the relationship between farm-level institutions and agricultural productivity, thus providing the motivation for the current research.

CONCENTRATED FIELDWORK. The remainder of the in-country work occurred between September 1989 and June 1990 and was dedicated to data collection. The concentrated fieldwork consisted of three parts: the design phase, the formal field tests of the questionnaires, and the actual survey. This paper is based on the information gathered through conversations, field observations, and formal interviews during this nine-month period.

DESIGN PHASE. The design phase lasted four months and involved development of the hypotheses and the questionnaires. Testable hypotheses were specified and the variables used in the hypotheses were defined. Information about the farms in the programs was gathered
to assist in sample design and sample selection. Finally, structured interviews were held on five farms to aid in the design of the questionnaires. These design-phase interviews were done on Las Victorias and El Sucum of the FUNDACEN program, and on Valle Lirio, Chuachilil, and San Carlos Málaga of the INTA program.  

Three distinct questionnaires were used. One questionnaire was designed to gather information at the farm level and two questionnaires were used to gather information at the household level. The farm-level questionnaire concentrates on the beneficiary families as a group: their backgrounds, characteristics of their farm, and their current institutions. The two household-level questionnaires provide details about individual beneficiary families. The household questionnaires contain identical demographic and opinion sections but differ in that one questionnaire focuses on the production and marketing of corn while the other focuses on coffee.  

FIELD TEST. Formal field testing and revision of the questionnaires took approximately one month, in January and February of 1990. By this time, the farms to be used in the survey had been chosen so that field testing could be limited to farms not included in the survey. Complete drafts of the farm-level and household-level (corn) questionnaires were administered at the FUNDACEN farm El Retiro and subsequently revised. The revised versions of the questionnaires (this time the coffee version at the household level) were then administered at the INTA farm San Rafael Sumatan. Based on these interviews, the drafts were revised once more and placed in final form.

The table below summarizes the farms that played a role in the early stages of the study--the initial contact in 1988, the design phase, and the field testing of the questionnaire.

<table>
<thead>
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<th>Initial Contact (1988)</th>
<th>Design Phase</th>
<th>Field Test</th>
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<tr>
<td>San Juan</td>
<td>Patzunuy</td>
<td>Las Victorias</td>
<td>El Retiro</td>
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<tr>
<td>El Pino</td>
<td>Popabaj</td>
<td>El Sucum</td>
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</tr>
<tr>
<td>Venecia</td>
<td>Panimaquin</td>
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<td>San Antonio</td>
<td>Choaquec</td>
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<td></td>
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<tr>
<td>San Nicolás</td>
<td>Sam Greene</td>
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<table>
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<th>Lucerna</th>
<th>Valle Lirio</th>
<th>Sumatan</th>
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<tr>
<td>Chuachilil</td>
<td>Málaga</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monte Llano</td>
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**TABLE 1:** Farms visited prior to survey phase.
SURVEY. The survey was completed over four months from February to June 1990 and consisted of 144 interviews at the household level and 10 interviews at the farm level. The 10 farms were selected based on their physical, productive, and institutional characteristics. Households were then selected randomly from within each farm.

The farms chosen for inclusion were intended to provide a statistically adequate number of households producing either corn or coffee under a variety of institutions in both the FUNDACEN and INTA programs. Farms still in their first year were not included in the study. Only those coffee farms that had harvested coffee during the 1989/90 harvest season were included since size of harvest was a key variable. The corn and coffee farms included in the study were located at both lower and higher altitudes.

Current lists of all beneficiaries were prepared for each of the ten farms. The farms provided ten strata, or groups of households operating under similar conditions. Using this stratification based on farm, households were then selected randomly within each farm. Random selection of households assures that the statistics generated for each farm are unbiased for that farm. However, overall statistics are not necessarily unbiased for all farms in the two programs since the ten farms surveyed comprise a purposive rather than a random sample.

Table 2 provides information about the farms in the survey. Six farms were in the FUNDACEN program: Las Victorias, Sam Greene, San Juan Monte Real, Patzunuy, San Antonio Buena Vista, and San Cayetano. Of the 619 households on these FUNDACEN farms, 77 households were selected into the sample. The 4 farms included from the INTA program were Chuachilil, Monseñor Romero, Monte Cristo, and Valle Lirio. A sample of 67 households was selected from the 370 possible households on the INTA farms. There were 4 farms on which 55 households were questioned about coffee and 6 farms on which 89 households were questioned about corn.

The survey on each farm was initiated by calling a public meeting with the farm technician, the junta directiva of the beneficiary group, and the male heads of households that had been randomly selected into the sample. At this meeting, the purpose of the survey and the nature of the questions were explained. The independence of the researcher from FUNDACEN, INTA, and USAID was emphasized. Household interviews were then held at the rate of two to four per day. These interviews took place in the family home with the male and female heads of household participating. After the household interviews were completed, the farm-level questionnaire was administered to a small group that included the junta directiva and the technician.
### Farms in FUNDACEN Program

<table>
<thead>
<tr>
<th>Farm Name</th>
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<th>Start Date</th>
<th>Size (has.)</th>
<th>Total</th>
<th>Sample</th>
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<td>3/86</td>
<td>168.7</td>
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<tr>
<td>Sam Greene</td>
<td>Coffee</td>
<td>4/85</td>
<td>402.7</td>
<td>128</td>
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<tr>
<td>San Juan Monte Real</td>
<td>Coffee</td>
<td>2/87</td>
<td>239.0</td>
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<td>Corn</td>
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### Farms in INTA Program

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<th>Start Date</th>
<th>Size (has.)</th>
<th>Total</th>
<th>Sample</th>
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**TABLE 2:** Characteristics of farms included in survey, sample size, and distribution.

**DATA ANALYSIS**

Data entry and cleaning were done upon return to the United States. The data set is complete, with no missing values and a nonresponse recorded for only one question on one household questionnaire. Some of the summary statistics, such as averages, extreme values, and frequency distributions, are provided in this report. For a more detailed analysis of the data, including an estimation of the production efficiency of beneficiary families and hypothesis tests relating efficiency to farm-level institutions, the reader is referred to Dunn (1991).
FACTORS FOR SUCCESS AND FAILURE IN THE LAND PURCHASE-SALE PROGRAMS

In this section, factors important to the success or failure of a land purchase-sale program are examined. These results are based on analysis of the data in conjunction with additional interviews and field observations. While the focus is on the FUNDACEN program, the experiences of farms in the INTA program are mentioned when they provide useful contrast or illustration. The factors are organized into seven categories: (1) initial or inaugural concerns, (2) social aspects, (3) production-related factors, (4) marketing and processing factors, (5) administration of the program, (6) farm organization, and (7) the transition to independence. Based on the research findings presented here, several modifications of the FUNDACEN program are recommended in the concluding section.

INITIAL CONCERNS

The initial or inaugural stages consist of the selection of a farm and the group of beneficiaries that will be associated with it. Decisions made in the initial stage are not considered to be easily reversible. That is, once a farm has been selected and the beneficiaries have begun to develop their parcels and pay their mortgages, it would be very difficult to drop the farm from the program or make major changes in the beneficiary group. For this reason, careful attention to the criteria for farm and beneficiary selection is warranted.

FARM SELECTION. FUNDACEN has generally been careful to seek a good value when purchasing farmland to be included in the program. Farm selection is based on two countervailing criteria that need to be balanced. First, the farm must promise a relatively high level of productivity in a relatively profitable crop or crops. This assures that the family will have the possibility for a strong source of income in the long run.

While productivity is an essential selection criterion, it is also critical that the farm be purchased at a reasonable price. The cost of the parcel to the beneficiary family must be low enough to allow the family to repay the mortgage without undue sacrifice. An excessively large mortgage payment may reduce family discretionary funds below the subsistence level throughout the normal repayment period of ten years. A lower purchase price also limits the amount of program funds that are committed on any one farm.

ENVIRONMENTAL CONCERNS. Despite FUNDACEN’s record of success in choosing farm properties, in a few cases they have overlooked the need to set aside significant portions of the farm for environmental reasons. The environmental concerns range from forests that are protected by law, to slopes that are prone to erosion, to watersheds that sustain the farm’s water supply. These concerns, whether of a technical or legal nature, are sometimes not identified until after the farm has been purchased. The result is that fewer parcels can be sold on the farm than anticipated, and the price of each parcel is thereby increased. When estimating a farm’s value to the program, any possible environmental restrictions need to be considered.
LOCATION AND ACCESS. A more common problem has been that several farms are located in areas where access is overly difficult. These farms may at first appear to be attractive purchases since the more distant a property is from the paved road or town, the lower its purchase price, all other things being equal. However, there are additional costs associated with an isolated farm that can outweigh these initial savings. The costs of isolation are both commercial and social.

Commercial costs include the higher administration, transportation, and service costs associated with an isolated farm. The FUNDACEN personnel, primarily technicians and regional supervisors, spend more of their time traveling to and from the farms and less time actually working on site. Per diem payments and the rate of vehicle depreciation are increased. Production profits are reduced by higher transportation costs that raise the net price of inputs and lower the net price received for the product. In some cases, higher prices are also being paid for services such as vehicle rental and product processing because there are fewer providers in the local area. If a farm becomes completely inaccessible to vehicles during parts of the rainy season, crucial inputs may be unavailable if they have not been delivered previously.

The farms El Retiro and San Juan Monte Real provide good examples of the problems that can arise from inaccessibility. El Retiro is completely isolated during the last three months of the rainy season due to the rise of three rivers that must be forded to reach the farm. This is a hardship that the beneficiaries feel strongly about. According to those who remain, a massive desertion of 48 out of 70 beneficiaries after the 1989 harvest can be attributed in part to this isolation. Desertions raise the cost of the program as unpaid debts must be absorbed and new beneficiaries brought onto the farm.

On San Juan Monte Real, the social costs of isolation also contribute to beneficiary dissatisfaction. The entrance road leading from the highway to the farm is in very poor condition and can become virtually impassable after heavy rains. No bus comes to the farm, so those who want to leave must walk about two-and-a-half hours to catch the bus at Naranjito. This affects the cost of consumer items since the stores on the farm and visiting vendors charge higher prices due to the difficult access. If a family leaves the farm to make purchases in Taxisco, Chiquimulilla, or Escuintla, upon return they must walk the final two-and-a-half hours, carrying whatever purchases they have made.

The problem of access becomes more critical in the case of a medical emergency. Sometimes the technician is able to transport a patient to the hospital using his motorcycle, but the motorcycle becomes unusable when the road is too muddy. In that case, the only way to reach the hospital is to travel on foot to Naranjito and catch the bus. Some patients, who were unable to walk due to a high fever or an injured foot or leg, had to be carried out on the backs of family members.

The more isolated the farm, the greater the need for the sponsoring agency to provide minimal social services to the beneficiaries. The farm San Cayetano, located directly adjacent
to the small town of Ayarza, provides a telling example of just how little a sponsoring agency needs to provide in the way of social services and infrastructure when a farm is well located. There is no urgency to provide houses on San Cayetano since most of the beneficiaries can continue to live in the town until they have enough time and money to construct decent housing on the farm. FUNDACEN does not need to provide a school and teacher since the town already provides opportunities for education through the ninth grade. There is also a health center staffed by a doctor and nurse, stores, pharmacies, electricity, potable water (a few hours each day), and daily bus service to the municipal capital and beyond.

**Beneficiary Selection.** Another area where FUNDACEN has generally operated well is in beneficiary selection. The selection process is formalized, with efforts made to give priority to families that have an agricultural background and are genuinely in need of land. While the policy is to select beneficiaries from the local area, in practice this is not always the case. Local origin, homogeneity of the beneficiary group, and certain demographic characteristics are all believed to be important factors for the success of a farm and its families.6

**Geographic Origin.** There are several reasons to believe that individuals who previously resided very near the farm will have greater success and contribute more to attainment of the program objectives than beneficiaries who come from more distant origins. The arguments in favor of local beneficiaries are both social and commercial. People from the vicinity are more likely to have social networks in the area that can help them through the early years of deprivation, and they are familiar with the social services that may be available. Local beneficiaries are also familiar with the crops, soils, and climate of the area; have greater understanding of local marketing channels; and are more knowledgeable about quality and availability constraints in local labor markets. Thus, they may be expected to become successful entrepreneurs more quickly.

Based on the survey results, FUNDACEN has been relatively successful in recruiting local beneficiaries. Of the 77 households in the sample, 54 percent lived in the municipio where the farm is located prior to becoming beneficiaries. Some 27 percent were actually prior residents on the farm or on property immediately adjacent. One-quarter of the households were from the same department in which the farm is located, though outside the municipio. Thus, 21 percent were from outside the department.

These numbers reflect the difficulty that FUNDACEN sometimes faces in finding beneficiaries from the local area. First, for a farm that is isolated and out of production, there may be very few potential beneficiaries in the local area. Even if there is a local population, there may not be sufficient local interest in the program. This points back to the importance of choosing farms carefully. An effort can be made to select only those farms that are likely to be able to draw beneficiaries from a local population.

**Group Homogeneity.** A group of beneficiaries is said to be more homogeneous if more of the individuals in the group share the same geographic origin, identify with the same
ethnic group, and speak the same language(s). While these characteristics tend to be related, it is possible to draw a group from the same location that speaks different languages. An example of this would be the farm Sam Greene, where all of the beneficiaries are from near the farm, but they belong to two distinct ethnic groups and speak two different languages (Kekchi and Pocomchi). Since less than 40 percent of the male heads of household speak Spanish, Kekchi serves as the *lengua franca* on the farm.

Patzunuy and San Cayetano are good examples of homogeneous groups. The 10 beneficiaries on Patzunuy were all drawn from the Acatenango area. All of them speak Spanish and all but one beneficiary speaks Cakchiquel. The 132 beneficiaries on San Cayetano are all from the local area and represent an entirely ladino population. Functional communication is obviously not a problem on these farms, and there is also some indication that the shared world views and value systems lead to less friction and distrust in the conduct of group endeavors.

**DEMOGRAPHIC CHARACTERISTICS.** The average age of a male head of household on the FUNDACEN farms surveyed is 36.6 years and the average education is 1.7 years. Of these men, 36 percent have never attended school and 59 percent have never completed more than the first grade. Only 15 percent have completed more than the third grade. The female head of household is even less likely to have attended school: 71 percent have no formal education and only 19 percent have gone beyond the first grade.

These statistics are not all that surprising since the program seeks to benefit the poorest of the rural population. Some concern has been raised as to whether such a high level of illiteracy is compatible with success in this type of program, which emphasizes commercial agriculture and relies on extensive credit. However, two conditions serve to mitigate the negative effects: first, many who lack formal education are quite adept at basic business mathematics; and second, the children of these beneficiaries are in many cases receiving an education. As one beneficiary on Sam Greene explained, "We have been asking lately for information on our debt. At the beginning I could not keep a record, but now I have two children who can read and do math."

**SOCIAL ASPECTS**

Although it is impossible to isolate completely the social factors affecting program success from other factors such as farm and beneficiary selection described above and production topics examined below, social needs on the farms are very real concerns. FUNDACEN has a very mixed record in meeting the immediate needs of the program beneficiaries, and there are households on these farms that are living in situations of desperate poverty.

In defense of the FUNDACEN position, the arguments can be made that (1) these families were very poor before they joined the program; (2) program funds are limited while rural development projects are expensive; and (3) if the families can only persevere through
the difficult early years, they will eventually be much better off. These arguments, while very true, are somehow unconvincing to the family that has just buried a child and cannot afford to properly feed, house, clothe, or educate those who survive.

Beyond compassion, there are other reasons to improve the social circumstances on the farms. A farm on which the individuals are relatively healthy and well-nourished will be worked by a more vigorous and effective labor force. The beneficiary couple that is preoccupied with pressing family needs may have little energy to expend on training and opportunities designed to achieve long-term goals. As has already been indicated, beneficiary turnover is costly to the program, and miserable social conditions on the farms are likely to contribute to this attrition. On San Antonio Buena Vista, a farm with very poor living conditions, 37 percent of the beneficiaries deserted the program during the first year.

**Nutrition.** Failure to take into account the nutritional needs of the beneficiaries in the farm's first years represents one of the most serious oversights of the FUNDACEN program. The top material priority of the beneficiary couple is to meet the food energy needs of their family. If this private objective is subordinated to any of the short- or long-term program objectives, then the cost of participation in the program is more than the family can or should be asked to pay.

The staple food of the Guatemalan campesino is corn. A family on a FUNDACEN farm has several ways to acquire corn, normally relying on some combination of the following methods:

1) purchase the corn using cash reserves from profits or savings;
2) purchase the corn using on-farm labor credit payments, known as jornales;
3) purchase the corn using cash from off-farm wage labor;
4) produce their own corn through cultivation of a milpa, either on or off the farm;
5) seek nutritional assistance in the form of a grant or credit from FUNDACEN or some other organization; or
6) seek nutritional assistance through their social network.

However, the fact that there are a variety of avenues for acquiring corn does not ensure that the beneficiaries' nutritional needs have been easily or automatically satisfied. The stage in the life cycle of the family—whether the ratio of productive to nonproductive members is low or high—has a very significant impact on the strategies that are feasible. A young family, with only very small children, is under the most serious risk of food insecurity. The female head of household is fully occupied with childbearing, child care, and household
maintenance, leaving the labor of only one worker to be allocated between maintaining the cash crop, cultivating the *milpa*, and seeking outside wage employment.

Under the FUNDACEN program currently, some of the above methods are not available or are available only on certain farms. For example, very few families come into the program with cash savings. Also, to the extent that the family is not from the local area, they will be unable to rely on a social network. Nutritional assistance has not been offered by FUNDACEN in the past, and interaction between the beneficiary groups and outside organizations has generally been discouraged.

The more common ways to secure food—through cultivation of a *milpa* or using cash from profits, *jornales*, or off-farm work—are almost always in conflict on FUNDACEN farms. An analysis of this conflict is offered in the discussion of production factors below. For now, the main points can be summarized by stating that a family has several methods for acquiring food, but some combination of these methods must be successful enough or the family will face the devastating possibility of malnutrition.

**HOUSING.** The quality of housing on FUNDACEN farms varies dramatically. An example of the best situation is represented by Patzunuy, where every family has a solid cinder-block house with a certain amount of privacy at their house plot, or *huerta*. The housing situation on San Juan Monte Real is similarly good, with 45 families in cinder-block housing, one family in a cane *rancho*, and three families living off the farm. Sam Greene also has over 100 cinder-block houses, but it and San Cayetano represent special cases and are discussed below.

The worst housing among the farms in the study was found on El Retiro, San Antonio Buena Vista, and Las Victorias. On San Antonio, 200 of the 228 beneficiaries live in *ranchos* with walls constructed from some combination of palm leaves, cane, and plastic sheets. Twenty have managed to construct houses with walls of unjointed wooden boards and twelve were fortunate enough to receive wooden houses that were already on the farm. The families on El Retiro live under grass roofs, while 39 of the 46 houses on Las Victorias have bamboo or cane walls.

The marked differences in housing quality can be attributed to a housing credit policy that has changed over time. On the earlier farms, families received cinder-block housing along with a housing debt to cover materials and construction. Later, as program funds became tight, beneficiaries on newer farms were left on their own to construct housing in accordance with family resources. An intermediate policy is illustrated on San Cayetano, where families have been given credit to purchase corrugated metal, or *lámina*, roofing material. As time and money become available, the family can construct its adobe house and move from the *aldea* to the housing area on the farm. At the time of the survey, 25 of the 132 beneficiaries were living on the farm.
High-quality housing is expensive; it contributes significantly to a beneficiary family’s debt and demands a large investment of program funds. A partial credit that is available on a voluntary basis may be the most effective. In the first years on the farm, funds may be more effectively applied to increasing agricultural production and improving the quality of health and sanitation conditions on the farm. The housing policy may need to be reviewed with the criteria being whether or not the program objectives for the family and farm are being furthered.

Not all beneficiaries want a cinder-block house and the accompanying debt. On Sam Greene, approximately one-third of the 103 cinder-block houses are either empty or used casually as toolsheds. The "owners" have chosen to remain in their houses in the local communities or on isolated hilltops, preferring their privacy and relative spaciousness to the 10-by-20-meter house plots in the farm’s two rather dreary housing areas. They were not given a choice about accepting a house in the housing area, since this was made a prerequisite for participation in the program.

There are three issues, then, that need to be considered relative to housing. First, the optimal housing credit policy—whether full credit, no credit, or something in-between—may differ from farm to farm. Second, a 10-by-20-meter house plot and cinder-block construction may not be appropriate to local custom and practice. Finally, it should be explicitly recognized that, contrary to official policy, not all program participants reside on the farm, and it may be desirable to consider the acceptability of off-farm residence on a case-by-case basis.

**EDUCATION.** The education of children in beneficiary families will be a crucial factor in determining whether or not parcels become excessively subdivided in the future. The current parcel size has been chosen so that, once paid for and under full production to a commercial crop, it will provide a typical rural family with a comfortable income well above the subsistence level. If the original beneficiary couple subdivides the parcel to leave a portion of it to each of their four children, then the subparcels will no longer provide an adequate family income.

FUNDACEN has recognized the importance of education from the beginning, and it has an excellent record of providing teachers for the farms. Four of the six farms in the survey had a school and one or two teachers. Those lacking schools, San Cayetano and Patzunuy, had public schools nearby. There is even a FUNDACEN policy that requires all parents to send their school-age children to the farm’s school or face possible expulsion from the program. Unfortunately, the attendance rates demonstrate that this policy is not overly effective.

Table 3 provides information about school enrollment for children ages 7 to 14 on the farms in the survey. Of the 101 children in the sample, 63 children, or 62 percent, were enrolled in school at the time. There are two important reasons that the enrollment rate is not higher. As will be discussed later, some of these families face labor shortages at critical
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<th>Total Number</th>
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<tr>
<td>San Juan Monte Real</td>
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<tr>
<td>Total</td>
<td>101</td>
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**TABLE 3.** Enrollment of school-age children on FUNDACEN farms.

periods, and a child of 13 or 14 can make a valuable contribution to family activities. Even more importantly, many of the families lack the cash resources to buy the required school supplies, or *utiles*. These families devise strategies for rationing the available money, such as sending all children through the second grade only, or sending only the brightest of their offspring. These parents are willing to forgo the labor potential of the child, and a school is available, but they simply cannot afford it.

There has been some effort to offer evening literacy courses for the adult beneficiaries. These will probably be able to attract enrollment only if conducted during the off-peak labor periods. Otherwise, there is not enough time in the day to attend. Perhaps more effective than a general literacy course would be practical training in recordkeeping for credit or labor accounts.

**HEALTH.** In general, attention to health and sanitation on the farms has been less than satisfactory. Table 4 provides some idea of the conditions on the farms. The water supply is normally "sheltered" rather than "potable." In many cases, the materials for latrines have been given to each family, but the family has not installed the latrine. This points to a lack of sufficient education regarding the health benefits of proper sewage disposal. There is no provision for health posts or medical care on the farms. This being the case, having access to medical care in a nearby town is the only recourse.
The unsafe handling and storage of agricultural chemicals represents a major health risk on the farms. Basic protective equipment, such as masks and gloves, is virtually unknown. On Sam Greene, beneficiaries requested protective equipment but did not receive it because it was handled as a request for credit that failed to win unanimous support from the group. Beneficiaries who want protective gear are advised to purchase it from DIGESA, the national agricultural extension service. Some families in the sample have had to send members to the hospital because of pesticide poisoning. Female heads of household participate in fumigation while pregnant. Opened containers of poisonous chemicals are stored in the home within reach of toddlers. Although certain hazardous chemicals are prohibited from use on USAID-funded projects, there is insufficient monitoring to assure that the chemicals used on FUNDACEN farms are not on the restricted list.\(^\text{10}\)

**TRANSPORTATION.** No provision is made for beneficiaries’ transportation, either routine or emergency. If a farm is in an inaccessible location not serviced by buses, then the isolation of families living on it is compounded. As discussed earlier, they lack access to medical care and marketing channels. It also affects their ability to send their children to school beyond the sixth grade or to work for wages off the farm. As the beneficiaries become more independent of FUNDACEN, lack of transportation may retard the entrepreneurial success on some farms.
PRODUCTION-RELATED FACTORS

Agricultural production is the fuel that keeps a land purchase-sale program moving toward success. Profits from production pay the land and other debts, achieving the long-term goals of independence for the family and farm and the release of program funds for reinvestment in new farms. Continued profits from production permit achievement of the long-term goal of providing a decent and secure future for the family. For these reasons, full employment of a farm's land and labor resources in agricultural production has been the key instrumental goal of the FUNDACEN program.

The emphasis that FUNDACEN has placed on production has met with much success. The technical direction of the FUNDACEN staff and the sweat and perseverance of the beneficiary families have combined to develop farms with the promise of productivity. Technical mistakes have been made along the way, but the overall results are positive. It is important to note, however, that it is precisely this preoccupation with the technical aspects of production that has caused FUNDACEN to make some decisions that are detrimental to the welfare of the beneficiaries and counterproductive to the long-term goal of independence for the families and farms.

TECHNICAL TRAINING OF BENEFICIARIES. The training of the beneficiaries in production technology is not proceeding as rapidly in some ways as in others. While they are learning physical methods for planting and cultivation through their actual experience on the parcel, they are not learning enough about the selection of inputs and the rationale behind the timing of production practices. The types, combinations, and amounts of inputs are chosen by FUNDACEN personnel and not by the beneficiaries themselves. Many beneficiaries found it difficult or impossible to actually name the inputs they had used in the recent growing season. The beneficiaries are not currently receiving the training that they need to become independent producers.

The temptation to postpone technical training of the beneficiaries is strong since there is an urgency to attend to the immediate tasks at hand. The technicians and beneficiaries face serious time constraints during the growing season, so the idea of taking time out for training is not attractive. It seems expedient to have the decisions made by a few trained individuals, especially when technologies are changing rapidly and the beneficiaries themselves may have little prior experience and less education.

LATE ARRIVAL OF PRODUCTION CREDITS AND INPUTS. Unfortunately, production on many of the farms has been unnecessarily reduced by the failure to receive needed inputs in a timely way. Timing is crucial in agriculture: if the seed is not available when the rains come, if there is no herbicide when the weeds appear, if the fertilizer cannot be applied when the plant can make the best use of it, then the returns to those inputs (when they eventually arrive) can be reduced dramatically.
There are many examples of late credits and inputs. The first year's production on El Retiro was greatly reduced because the production credit requested in the beginning of April and needed in May did not arrive until late June. The production-depressing effects of late planting and late fertilization probably contributed to the poor overall outcome on this farm. There is a recurring problem on Sam Greene with late inputs, specifically with fertilizers, and San Juan Monte Real has had a chronic problem with late inputs, especially herbicides. This scenario is repeated annually on farms throughout the program.

Neither the beneficiaries nor the technicians are at fault in the majority of cases, though the beneficiaries tend to place the blame on the technician or the regional supervisor. The responsibility for late inputs lies with the FUNDACEN central office and with USAID/Guatemala. It is the responsibility of these two administrative groups to have the capital available for timely input purchase and delivery in accordance with the dates specified in the credit solicitation. Untimely credit delivery is wasteful precisely because it is detrimental to all of the objectives of the program rather than representing a compromise in the face of goal conflicts.

CORN PRODUCTION. The cultivation of corn by beneficiaries has proved to be a controversial topic on many of the farms. There are productive, financial, and humanitarian aspects to be considered in resolving this controversy. The humanitarian aspect has to do with whether the families will have adequate nutrition and whether their right to independence is being denied. As stated earlier, FUNDACEN emphasizes the cultivation of cash crops based on the idea that these crops are more profitable. In order to cultivate corn, a beneficiary must either secure "permission" to plant corn in the parcel or locate rental land off of the farm.

The discouragement of corn production stems from the belief that the more profitable cash crops should have first claim to the limited land, labor, and capital resources. Corn and the cash crop are seen as always in direct competition for resources. However, there may be complementarity in resource use between the two crops, particularly when it comes to available family labor. Strategic planning can result in a comprehensive labor plan for the two crops that allows the family to exploit more fully the most valuable resource it brings into the program, its labor capacity. By cultivating a cash crop that does not conflict with corn in peak labor-demand periods, both corn and the cash crop can be produced.

There are several important financial considerations that indicate the desirability of corn production. First, where capital for purchased inputs is limited, corn provides a relatively high return to a low initial investment of capital. Second, corn provides the family with protection against inflationary food prices. With corn in the field or in the silo, a family has much more assurance that their nutritional needs will be met regardless of rising food prices. Many FUNDACEN beneficiaries who were relying on a corn purchase strategy in early 1990 watched in dismay as the price of corn doubled between the beginning of the coffee harvest and the day that cash proceeds from the harvest actually became available.
Corn also provides insurance against the price and production risks associated with cash crops. The prices of coffee and export vegetables are volatile, and the cash proceeds from these crops after debt payments may be inadequate to support a food strategy based entirely on purchase. Moreover, production risks with corn are lower than with the cash crops, and the family is likely to enter the program having more experience with corn cultivation than with any other crop.

Corn production can help to achieve program objectives more quickly by reducing the cash needs of beneficiaries. Three important sources of cash have been identified: (1) jornales, or labor credits; (2) distribution of production profits; and (3) off-farm wage labor. Jornales are kept to a minimum by FUNDACEN in order to keep the overall debt of the family as low as possible. Their primary purpose is to enable the family to meet its subsistence needs. When families cultivate their own corn, their need for jornales is lowered and the amount of debt can be reduced, leading to more rapid liquidation.

A portion of the profits from the cash crops is normally applied to the beneficiary debt while the remainder is distributed in the form of cash. This cash is used to meet the expenses of the family throughout the year until the next harvest. By reducing the annual food expenditures of the family, corn production may permit more of the profits from the cash crop to be applied to the debt. This will also help to achieve program objectives by eliminating the debt more quickly.

Finally, off-farm wage labor or land rental is discouraged by FUNDACEN because it reduces the amount of time and attention that is spent on the parcel and may also be detrimental to the cohesiveness of the farm community. However, it should be clear by now that the family has a compelling need to secure its food supply. If there are no cash savings or social networks to draw upon, no nutritional assistance grants, no milpas allowed on the farm, jornales below the subsistence level, and cash distributions from profits which are inadequate or too infrequent, then the family will have no other choice than to send a member off the farm to seek work for wages or land to rent.

**MARKETING AND PROCESSING**

The success of the farms in initiating production means that they are now moving into a different stage. That is, the first concerns were to select the farms, locate beneficiaries, and cultivate the land. Now that harvests have begun on many of the farms, attention must be paid to the second-generation problems, those associated with the marketing and processing of the product.

**Beneficiary Participation in Marketing.** So far, the FUNDACEN program has not addressed the need to provide training and develop institutions that allow the beneficiaries to participate in the marketing component of the enterprise. On the coffee farms, the contracts for processing and sales of the harvest are all made by FUNDACEN personnel.
The vegetable farms are somewhat different, since each farmer must make a separate contract with the exporting company.

On none of the farms did the beneficiaries arrange their own input purchases. These purchases were all made by FUNDACEN personnel. When asked how many times they had purchased inputs during the 1989 agricultural year, beneficiaries commonly responded that they had never purchased inputs, and that they only used what FUNDACEN "gave" them. Almost no family could accurately state the price paid for any input.

The reasons behind this deficiency in the program are similar to those which block the provision of training in input selection. There seems to be too much time pressure on both the technician and the beneficiaries to undertake any activity that is not absolutely essential to short-term profit generation. There is also the possibility that beneficiary-controlled input purchases and output sales would result in less favorable prices due to lack of experience and information. A third concern relates only to output sales: FUNDACEN is motivated to control the harvest fully as a way of knowing the precise repayment capacity of each beneficiary.

It is likely that the input and product prices obtained when market transactions are made by the group as a whole will be more favorable than when each individual makes purchases and sales independently. However, this does not imply that the transactions must be managed by FUNDACEN. Institutions can be developed that enable the beneficiaries to join together and receive a net benefit from group market transactions.

On the INTA farms, many of the input purchases are being successfully managed by committees that represent the entire group of beneficiaries. As the individuals in groups become more prosperous, with fewer needs for emergency sales, they are experimenting with group sales of the harvest. In order to overcome the problems of price fluctuations, a few farms are considering the possibility of self-capitalization of the marketing activity. Under this plan, the group will have the funds to buy and hold individual harvests until a more favorable market price is available. The INTA experience has demonstrated that a certain level of confidence in the group and its representatives is needed before an individual will be willing to participate in a group marketing endeavor.

When the farms and families reach the long-term goal of operating independently of FUNDACEN, they will have no choice but to perform their own marketing for inputs and products. As entrepreneurs, their success will depend on their performance in both the production and marketing spheres. To a large part it will be prior experience and training that determines whether or not their market operations will be profitable. Their willingness to rely on group marketing techniques will be influenced by the past history of self-managed group undertakings and the level of confidence that has already been developed in group institutions.
**Distribution of Harvest Proceeds.** There was a serious problem following the 1989/90 harvest on several of the coffee farms in the survey. This problem was unfortunately caused by an avoidable sequence of events. Prior to the harvest of the coffee, there was no explicit or binding agreement as to the percentage of the harvest proceeds that would be distributed to the beneficiary families in the form of cash and the percentage that would be applied to amortize each family's debt. The harvest was sold by FUNDACEN personnel, without beneficiary participation, and the receipts were held in the central office of FUNDACEN. Time passed as personnel in the central office attempted to evaluate each family's unconsolidated credit accounts and determine how much of the harvest proceeds to apply to the mortgage on the parcel, how much to apply to production credit, how much to apply to the housing debt, and so forth. An effort was also made to ascertain the range of output that could be expected from the harvest of a given stand of trees in order to detect who among the beneficiaries had withheld a portion of their harvests to sell on the side. Cash distributions were postponed until these calculations could be completed.

Meanwhile, the beneficiaries waited up to two months without receiving the cash rewards of their harvests and without knowing the actual amount that they could expect to receive. During this period (January-March), their need for cash did not diminish. On the contrary, it was augmented by several circumstances. With the start of the new school year, those parents who could not purchase school supplies had to hold their children out of school for the entire year. Since this was a low labor-use period in the agricultural cycle, the *jornales* paid by FUNDACEN to help with subsistence were either very low or unavailable.

The prices of corn and beans increased rapidly in the intervening period: cash received in March purchased less than half the amount of corn it would have purchased in January. Many beneficiaries were aware of the declining value of the cash they would eventually receive. They reasoned that if they were not to receive the money until March anyway, it would have been better to hold on to the coffee harvest and sell it later at a more favorable price. In effect, the beneficiaries provided an interest-free loan to FUNDACEN.

In addition to being detrimental to the welfare of the beneficiaries, this situation also has psychological and motivational impacts that interfere with the long-term goals of fostering an independent, entrepreneurial spirit in the beneficiaries. It is obvious to the beneficiaries that they are not *dueños* when they see that they have no control over the money that results from their harvests. Instead, there is an increased likelihood that FUNDACEN will be viewed as the *patrón*. The credibility of FUNDACEN is diminished to the extent that any prior implicit agreement about the size of the cash distribution is later broken when the amount of cash is reduced in what appears to the beneficiaries to be an arbitrary manner.

In summary, there are many negative effects to delaying the distribution of the harvest proceeds. Immediate- and long-run incentives are reduced due to a reduction in participation, credibility, and the size and purchasing power of the cash margin. These repercussions can be avoided through agreement prior to the harvest as to the percentage that will be distributed in cash and commitment after the harvest to honor that agreement immediately.
**Beneficio Capacity.** As harvests on the coffee farms increase each year, the need for reliable access to wet processing facilities, or beneficios, will also increase. Raw coffee must be processed within approximately 24 hours or the quality is reduced and eventually destroyed through fermentation. This reduction in quality lowers profits by lowering the selling price of the coffee. A beneficio located on or near the farm that has adequate capacity for prompt processing of the raw bean can eliminate profit losses due to fermentation.

Profits may also be lowered by contracting with an independent beneficio rather than processing the coffee at an in-house facility. This would hold if the unit cost for processing at the outside facility exceeds the total unit cost of operating a farm-owned beneficio. Transportation costs, per diem payments, and other handling costs should be included in the calculation of unit costs.

Another important advantage of an in-house facility, from the perspective of FUNDACEN, is that it promotes an easier accounting of the amount of coffee harvested by each beneficiary family. Because the beneficiaries are obligated to use a percentage of their harvest proceeds for debt retirement, FUNDACEN has an interest in knowing the full amount of each beneficiary’s revenue.

The importance of beneficio capacity is illustrated by the situation on Sam Greene during the 1989 harvest. There were 113 manzanas of coffee in primer ensayo, with a better-than-expected yield. At the same time, capacity at the farm’s beneficio (Panimá) was lower than expected. Last minute contracts had to be made with nearby beneficios; some of the harvested bean was lost to fermentation; and a full accounting of the harvest became impossible as the coffee left the farm for different destinations. The problem generated loss of profits, loss of confidence, and a lingering atmosphere of conflict, suspicion, and recrimination. ¹³

**Administration**

**Field Personnel.** A notable strength of the FUNDACEN program is the quality of its field personnel. These Guatemalans are knowledgeable and versatile, and many of them have a clear concept of the philosophy and policies of the program. The field personnel consist of technicians, regional supervisors, and specialized field workers. The regional supervisors represent a conspicuous asset of the program.

**Technicians.** Each farm will normally have a resident technician who has a specialized high-school diploma in agronomy. Some of the larger farms may have two or three technicians, while the tiny vegetable farms often rely on one technician per three or four farms. Much more than simply a consultant in agricultural technology, the farm’s technician is responsible for the administration at the farm level of all production and community development activities.
The technician is under considerable pressure to finish the agricultural year with a large harvest. Because the farms are relatively new and many were previously uncultivated for years before, there are many activities to be accomplished in the first years, such as clearing the land, developing access routes to the parcels, maintaining nurseries for the young perennials, and so on. The amount of time that the technician devotes to production activities leaves little to spare for community and institutional development or training activities. However, many of the technicians recognize that they play a pivotal role in helping to create a community out of a group of displaced strangers.

While most of the technicians are outstanding, there are a few who fail to understand the goals of the FUNDACEN program. In a society where campesinos are frequently seen as agricultural workers to be ordered about and fired for small or imagined infractions, some technicians fail to understand that they are participating in a new and different system. Instead of recognizing that the beneficiaries are to be encouraged in their new role as owners, the technician behaves as if he were the foreman or overseer for FUNDACEN. Unfortunately, these attitudes are sometimes inadvertently encouraged by the central office, which can be slow to discharge the technician who holds them.

REGIONAL SUPERVISORS. There are five regional supervisors who are each responsible for supervising the activities on all farms in a broad geographical region. They usually spend one day a week at the central office, working with the field director of the program and other administrative personnel. During the remainder of the week, they work in their regions, regularly visiting the farms and also serving as the supervisors of the smaller, regional offices. They hold five-year university degrees in agronomy.

The current staff of regional supervisors are highly dedicated individuals and fully cognizant of what the program is trying to accomplish. They occupy a unique position in the organization because they represent the contact point between the realities of day-to-day life on the farms and the administrative concerns of the central office. This pivotal position provides them with a clear grasp of the origins behind the inherent conflicts and contradictions in the program as it currently functions.

The regional supervisors combine a detailed knowledge of individual farms with a comparative knowledge across farms and a historical perspective on the progress that has been made. They also understand the administrative problems of the program and its overall policy concerns. Their work has been instrumental to the success of the FUNDACEN program thus far, although their knowledge could be more fully utilized through greater involvement at the policy level.

OTHER FIELD PERSONNEL. The specialized field workers include schoolteachers, social workers, health promoters, and credit facilitators. The schoolteachers often play an important role in the community. The other workers rotate from farm to farm and their activities are sometimes subordinated to the production concerns of the technician. The credit workers so far have not provided as much of an educational service as possible.
CREDIT MANAGEMENT. A beneficiary family will typically receive several types of credit from FUNDACEN. At a minimum, FUNDACEN holds a mortgage for the value of the parcel. In most cases, the family will also receive production credit. Production credits are short-term for the annual crops, but have a longer repayment period for the perennial tree crops (for example, coffee, cacao, citrus, mango). On some farms, FUNDACEN has also loaned families money for the purchase of building materials for houses.

There is a balance that must be struck between providing credits to the beneficiaries and keeping their debts low enough so that they have the capacity to repay. For this reason, full housing credits may be excessive. In order to help the families with subsistence needs, the production credit often includes money for family labor credits, or jornales. For FUNDACEN to select the optimal amount of labor credits to include, both the current subsistence strategy of the family and its long-run debt need to be balanced.

Because it is difficult to separate completely the discussion of credit from discussions of social, production, and marketing concerns, several references have already been made to the role of credit and to the various problems associated with it. For example, the importance of timely delivery of production credit was discussed under production-related factors. It was also implied in the marketing section that a lack of consolidation of each family’s credit accounts leads to a delay in the distribution of harvest proceeds. An additional serious problem is the almost complete lack of information that beneficiaries have concerning their credit accounts.

BENEFICIARY KNOWLEDGE OF CREDIT. In the first six years of the program, FUNDACEN has been ineffective in implementing a system for beneficiary participation in credit accounting. Technically, each beneficiary signs receipts that acknowledge the amounts of money received over time. In practice, however, there is almost universal ignorance about the total amount of credit received, the amount of credit owed on each account, the rates of interest being charged, the size of payments being made, and the anticipated date(s) of debt retirement.

This lack of beneficiary knowledge about credit creates a climate of misunderstanding and distrust while working against the objectives of the program. Some beneficiaries do not understand that all cash and inputs received add to the size of their debts. A certain mystery surrounds the growth of their debt, and this mystery leads to the suspicion that FUNDACEN is arbitrarily increasing the debt accounts.

It remains to be seen how this distrust will affect repayment performance. During the survey interviews, many beneficiaries spontaneously raised the issue of their lack of knowledge about their debts. They expressed the desire for a system to keep track of their accounts. They linked their ignorance about the credit accounts to a reluctance to fully reveal repayment capacity by marketing all of their harvest through FUNDACEN.
Obviously, it will be difficult to design a system for the beneficiaries to use that is both comprehensive and straightforward. At least half of the male heads of household, and more of the female heads, are illiterate. The debts are large and complex; there are usually at least three separate accounts for each household. For most of the campesinos selected into the program, this is their first experience with such extensive credit. Even a well-designed system will need to be accompanied by training in order for the beneficiaries to be able to use it.

**Hierarchical Decision-Making.** As has already been indicated, many of the important technical and business decisions are not being made by the beneficiaries. They do not choose their inputs, the input seller, the timing of the sale of the harvest, the buyer, or the allocation of revenues between cash income and debt retirement. These decisions are being made by FUNDACEN personnel, almost always under direct control of the central office. Although the decentralization of these decisions may appear risky, it is a necessary step for encouraging the beneficiaries to develop both confidence in the program and entrepreneurial expertise.

**Farm Organization**

Up until now, organization at the farm level has been minimized. Each farm has a general assembly, composed of the male heads of household, and an executive council, or junta directiva. The functions and effectiveness of the junta directiva vary among farms, but their scope is always limited by the centralized control that FUNDACEN exerts over decisions at the farm level. There may also be various other committees, such as community development committees, organizations of parents of schoolchildren, groups to maintain the corn mill, and the like.

An emphasis on development of farm-level organization is needed to assist the transition to independence. The permanent subgroups that currently exist on some farms provide a model that can be amplified and applied to all farms. Establishing a legal identity for the community would facilitate several of the needed adjustments to the program, since this would enable the group to approach public and private agencies for assistance with social services, infrastructure, and credit not provided by FUNDACEN.

**Permanent Subgroups.** One form of organization, permanent subgroups, has been initiated by the technicians on several farms and has important potential for improving several aspects of the program. These permanent subgroups have different names on each farm: on San Antonio Buena Vista, they are "groups of 22"; on Las Victorias and San Juan Monte Real, they are "groups of 10." On San Cayetano, there are two overlapping sets of permanent subgroups; each beneficiary is a member of one of the five "groups" and one of the seven "sectors."

While the functions of the permanent subgroups vary across farms, they do have some things in common. Each subgroup has a leader, or jefe, who is usually chosen by the
members of the subgroup. The members of the subgroup are male heads of beneficiary households. The most common technique for forming the subgroup is to group together those beneficiaries with contiguous parcels.

On San Cayetano, the "groups" are mainly for work details in the tree nursery, seedbed, or other agricultural projects of mutual benefit, while the "sectors" are for technical advising and road maintenance. Members of a single sector share a common access road. The groups on San Juan are primarily for organizing work details on farm-level projects.

On Las Victorias and San Antonio, the subgroup leader is responsible for monitoring the progress made on parcels of beneficiaries in his subgroup. When a work activity in the parcel involves labor credit payments, the leader has the authority to withhold payment until he judges that the activity has been performed satisfactorily. In some cases, the group leader is also responsible for disbursing payments.

On San Antonio, the subgroup system also plays an important role in technical training. Rather than working with all of the beneficiaries at one time, the technician may find it more effective to present information and answer questions in the smaller subgroups of 22 beneficiaries. Alternatively, the technician may assemble the group leaders, present the technical information to the leaders, and charge them with transmitting the information to the members of their subgroups.

Thus, permanent subgroups are already being used for farm-level projects, the construction and maintenance of social and productive infrastructure, supervision of parcels and work activities, cash disbursements, and technical training. However, the functions and even the existence of subgroups is not universal across farms. If established on all of the farms, these subgroups could provide the structure for increased training and the participation of beneficiaries in decision-making. They could also be used to build the institutions and leadership experience that will be needed when FUNDACEN is no longer actively associated with the farm.

LEGAL IDENTITY. The establishment of a legal identity, or personerla jurídica, for each of the farm communities has so far not been encouraged by FUNDACEN. This legal identity is needed for several reasons. It would immediately facilitate the improvement of social conditions on the farms as well as provide the means for the farms to make the increasingly important transition toward independence.

Without legal identity, it is difficult, and in many cases impossible, for the beneficiary group to solicit outside assistance for improvement of the community. As FUNDACEN discovers how expensive it is to provide all of the funds for community development, the beneficiary group must look elsewhere for assistance with nutrition, housing, health care, education, and sanitation. There are government organizations and NGOs that can be approached for help, but first the beneficiary group must have an official identity. Given that
FUNDACEN does not have the funds to provide for every community development need on the farms, the ability of the group to solicit outside assistance is critical.

Legal identity is also required for the beneficiary groups to begin to conduct business transactions independently of FUNDACEN. It is needed to enter into service contracts for machinery, transportation, and product processing. Legal identity is also needed to enter into marketing contracts for the purchase of inputs and for output sales. While it has already been pointed out that FUNDACEN has been slow to permit the beneficiaries to participate in these transactions, some immediate phasing-in is advisable if an abrupt change at independence is to be avoided.

TRANSITION TO INDEPENDENCE

The transition of the beneficiary group—from a mixture of displaced strangers, suspicious of each other, inexperienced with the crop and region, and completely dependent on FUNDACEN to a collection of experienced and successful entrepreneurs, working together for the maintenance of the community, and operating independently of FUNDACEN—is obviously not an event that will occur overnight. Rather, the transition occurs in increments and begins immediately, with the first growing season and the first interaction between neighbors in the colonia.

Every event on the farm is an opportunity to prepare for a successful transition by providing the individual beneficiaries with training and experience and by encouraging the formation of effective group institutions. Unfortunately, these opportunities are often overlooked or deliberately subordinated to the production and profit goals. Failure to prepare for the day that FUNDACEN leaves the farm could jeopardize the success of the program after a great deal of time and money has already been invested.

CONCLUSION

The following recommendations close this report by indicating the most significant improvements that can currently be made to the FUNDACEN land purchase-sale program. The reader will notice that not all of the possible changes suggested in this report are listed here. While any improvement to the program represents a change for the better, the specific items proposed below are considered by the author to be the most urgent.

NUTRITION

Adequate nutrition for all families in all time periods should be made an explicit goal of the FUNDACEN program. As discussed earlier, families utilize different strategies for
acquiring corn, depending on their individual circumstances and the situation on the farm. An analysis needs to be made on each farm of beneficiaries’ opportunities to secure minimal access to corn through production, grant, or purchase (from jornales, profits, savings, or off-farm work). The results of the analysis could be used to design a specific, feasible strategy for food security on each farm. This design should allow for the differences that exist in family life cycles.

LEGAL IDENTITY

FUNDACEN should assist the beneficiary group in obtaining legal identity (persona jurídica) by the time group membership has stabilized (usually toward the end of the second year). Once the group has legal identity, they should be encouraged to seek outside assistance for pressing social needs not provided by FUNDACEN. The group may need guidance in their initial efforts at securing grants and loans.

EDUCATION

Education is an important means for ensuring that many of the beneficiary children will be able to secure off-farm employment in the future. This will help to prevent the parcels from becoming subdivided to a subsistence level or smaller. Since many children are currently held out of school due to lack of funds for supplies, FUNDACEN should arrange a subsidy, either through program funds or from outside sources, to help parents purchase the school supplies that would allow their children to attend school.

FARM SELECTION

A higher priority should be placed on purchasing farms that are well located relative to towns and municipal centers. These farms will offer their beneficiaries access to important services such as transportation, health care, education, and commercial opportunities. Any savings in the purchase price from buying an isolated farm must be weighed against the increased costs associated with providing minimal social services, transporting materials and field personnel, and increased levels of desertion and beneficiary hardship.

SAFETY IN CHEMICAL USAGE

Policies regarding safety in the selection, handling, and storage of agricultural chemicals need to be reevaluated. Chemicals that have been found to be excessively harmful to humans and the environment (for example, those not approved for use in the United States and on AID projects) should be phased out. Protective gloves and masks, along with training in their proper use, should be provided to beneficiaries. In general, there is a need for education and training about the proper use of chemicals and the potential health risks they pose to the entire family, especially pregnant females. Safe storage practices for partially used containers of chemicals should be encouraged.
TECHNICAL TRAINING

FUNDACEN needs to implement a gradual but firm schedule, beginning in the second crop year, for involving beneficiaries in the decision-making process that leads to the selection of production outputs and inputs. In order for this transition to be successful, formal training should be provided to beneficiaries that will facilitate their effective involvement in technical decision-making.

COMMERCIAL TRAINING

Similarly, FUNDACEN needs to devise a plan for having the beneficiaries begin to participate in the marketing of inputs and products by the third year. This plan should gradually phase out the involvement of FUNDACEN in the marketing process so that FUNDACEN field personnel serve in only an advisory capacity during the last two or three years of their presence on the farm. In order to retain the advantages of economies of scale in marketing, the development of institutions for self-managed group marketing should be encouraged.

CREDIT ACCOUNT MANAGEMENT

There is a growing need for a system for credit accounts that will allow each beneficiary family to know the total amount of credit received, the amount of credit received in the previous period, the amount of money owed on each account, the rate and amount of interest being charged, the size and date of all payments already made, and the anticipated date(s) of debt retirement. If this account is not to be physically kept in the beneficiary home, then beneficiaries should be provided with scheduled access to the account no less than once a month and nonscheduled access on demand. Training will need to be provided so that at least one member of each beneficiary household is able to read and interpret the account.

PERMANENT SUBGROUPS

Permanent subgroups consisting of 8 to 20 members should be established on all farms that have more than 15 beneficiaries. These subgroups can be utilized for training purposes and for phased-in beneficiary participation in decision-making about technology, input selection, marketing strategies, credit accounting, and so forth. Administrative responsibilities now held by technicians can be gradually delegated to group leaders. Basic leadership training should be provided and rotation of group leaders encouraged. Enough flexibility should exist for the subgroups on each farm to develop what they consider to be appropriate institutions for providing organization and leadership at the later stages of the transition to independence.
TRANSITION TO INDEPENDENCE

A realistic timetable should be established for all of the social, technical, commercial, and organizational developments that must occur before the farm becomes independent of FUNDACEN. A periodic evaluation can be made to determine the progress of the farm relative to the timetable.

TIMELY CREDIT DELIVERY

The chronic problem of late delivery of production credits and inputs is largely due to administrative and budgetary obstacles at USAID/Guatemala and the FUNDACEN central office. An attempt should be made to locate and remove these obstacles so that agricultural production is not unnecessarily impeded.

DISTRIBUTION OF HARVEST PROCEEDS

An explicit agreement between FUNDACEN and the beneficiary group must be made prior to the harvest season regarding the percentage of the receipts from the harvest that will be made available in cash. After the harvest, cash proceeds should be distributed promptly, normally within a week to ten days of the final sale. As beneficiaries begin to participate more in marketing the harvest, cash proceeds can be deposited in the farm’s bank account, with a portion sent to FUNDACEN for debt retirement and the remainder distributed in cash.

FIELD TECHNICIANS

Field technicians must be aware that they are participating in a new arrangement, that FUNDACEN is not a patrón, and that the beneficiaries are to be treated with dignity and respect. If any technician is the object of regular complaints on the part of beneficiaries or impartial observers, his attitude and performance should be carefully reviewed.

REGIONAL SUPERVISORS

FUNDACEN should make every attempt to continue to attract highly qualified personnel for regional supervisors. The compensation paid to supervisors should be kept high enough to retain them and keep them motivated. Since regional supervisors have an in-depth knowledge of the farms, they should be given more control over policy formation and implementation of the program. Their unique expertise will provide a key resource in the process of decentralizing farm-level decisions. Any new land purchase-sale programs to be established in the future should carefully consider the integrating role played by the regional supervisors.
APPENDICES

Appendix A: Design Phase Survey

Appendix B: Questionnaires

1. Farm Level Questionnaire
   Page 65

2. Household Level Questionnaire, Coffee
   Page 87

3. Household Level Questionnaire, Corn
   Page 109
PREGUNTAS SOBRE CULTIVOS

D1.0.1 What are the most important crops on this finca? (Focus the remaining questions on the one—or possibly two—crops to be analyzed in this zone.) CIRCLE THE RELEVANT CROP.

¿Qué son los cultivos más importantes en esta finca?

D1.0.2 When are these crops grown? (i.e. approximate planting and harvesting dates)

¿Cuando es la época de la siembra? ¿Cuando es la época de la cosecha? (Fechas inclusivas)
D1.0.6.a (for annuals) Is there more than one planting of this crop during a season? What are the different plantings called? What are the important differences between the plantings? (yield changes?)

For annual crop: 

¿Hay más que una siembra un el año? (o, ¿cuántos siembras hay en un año?) número:

¿Cuándo son las siembras diferentes y cómo se llama? (primero, segundo, otro)

¿Qué son las diferencias más importantes entre las siembras? Por ejemplo, el rendimiento, mano de obra, uso de insumos...
D1.0.6.b (for perennials) What is the life cycle of this crop? How do the yields change as the plant gets older?

For perennial crop: ___________________

¿Qué es el ciclo de vida de esta planta?
¿Cómo cambia el rendimiento o producción cuando el árbol está creciendo?
¿Cómo cambia la manera de cultivación, el uso de mano de obra y los insumos?
D1.0.3 What are the different steps involved in growing this crop? (Elicit a description of steps in soil preparation, planting, transplanting, weeding, application of chemicals, irrigation, harvest, and ask if there are any other tasks. Pay special attention to the following: 1) vocabulary used, and 2) categories of machinery and biochemical inputs.)

Yo quisiera conocer mejor el proceso de cultivar _________. Entonces, me gustaría oír una descripción de las tareas en su cultivación. También, es importante que yo aprenda las palabras que Uds. usan para describir las tareas. Empezando con la preparación para la siembra, ¿Qué es la primera cosa hacer?

(preparación de campo/suelo)

(siembra)

(transplante en campo definitivo)

(deshierba/limpiar)

(aplicación de productos químicos)

(riego)

(cosecha)

(otras cosas)
D1.0.4 Do you use some kind of machinery in the cultivation of this crop?

¿Usan Uds. algún tipo de maquinaria en el cultivo?
Sí sí, ¿qué tipo? ¿A quién pertenece la maquinaria?
¿Usan un tractor? ¿Para qué?

D1.0.5 What kinds of chemicals are used on this crop?

¿Qué son los tipos de productos químicos que usan Uds. en este cultivo?

fertilizantes/abonos:

herbicidas:

pesticidas:

hongocidas:

otros tipos de productos químicos:

¿Usan Uds. semillas mejoradas?
D3.1 For the crop(s) discussed under D1, who makes the decisions (or how are decisions made) about the following: types of seeds, methods of soil preparation, planting dates, types of fertilizer, fertilization dates, weeding dates, types of herbicides, types of pesticides, types of fungicides, dates for applying chemicals, methods for applying chemicals, and harvest dates.

Ahora, tengo interés en saber quién toma las distintas decisiones sobre los métodos de cultiación. Yo tengo aquí una lista de decisiones. Por ejemplo... La cosa más interesante para mí es saber si el beneficiario toma la decisión solamente para su propia parcela/trabajador o si es una de las decisiones que toma algún persona o grupo para todos. Cuando digo un grupo o una persona, esto puede ser miembros de la junta directiva, la junta de producción, el técnico, la asamblea general o cualquiera.

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<tr>
<th>Decisión</th>
<th>Beneficiario</th>
<th>Grupo (cuál)</th>
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<tr>
<td>Tipos de semillas</td>
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<td>Métodos de preparar para sembrar</td>
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<td>Fechas de sembrar</td>
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<td>Fechas de aplicar los químicos</td>
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<td>Métodos para aplicar los químicos</td>
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D1.0.7 What kinds of experience have the beneficiaries on this finca had with this crop? (e.g. grown on this finca in previous years; grew it on owned, rented or sharecropped land prior to coming on this finca; worked as day laborer on this crop; never worked with it before; be alert for other types of responses.)

Tengo interés en la experiencia que los beneficiarios tienen con

... pflanzen. ¿Antes de este año, cuántos años hace que Uds. cultivan ... en la finca aquí?

Antes de venir a la finca, qué eran las experiencias distintas de Uds. y los otros beneficiarios? (Ejemplos: lo cultivaron en tierra propia, alquilado, en medias, cómo jornales, nunca lo cultivaron....)

PREGUNTAS GENERALES

D1.4.2 Are some beneficiaries on this finca related to each other? In general, is it better for a finca to have many relatives on it? Why or why not?

¿Son algunos de los beneficiarios en la finca padres, hermanos, cuñados, primos, compadres, o otro tipo de pariente con otros beneficiarios en la finca? ¿Aproximadamente cuántos de Uds.?

En general, ¿es buen idea o mal idea tener mucho parentezco en una finca? ¿por qué?
D1.4.1 Are there different ethnic groups on this finca? If so, what are they?

¿Cuáles son los grupos étnicos en esta finca?

D1.4.3 Did the beneficiaries on this finca know each other, work together, or have some organization before they became beneficiaries on this finca? Were they neighbors? If so, about how many of the current beneficiaries were in that early group? What was the nature of the group? How long did it exist?

Antes de ser beneficiarios en esta finca, ¿les conocían Uds. uno a otro? Por ejemplo, ¿tenían Uds. un grupo o organización? ¿Eran vecinos?

Sí sí, ¿qué era la naturaleza del grupo?

¿Cuánto tiempo existía este grupo antes de entregar la finca?

¿Aproximadamente cuántos de Uds. estaban en este grupo?

D.1.0.8 Is there a school available for the children on this finca? If so, how old does a child need to be in order to start attending school?

¿Hay una escuela a la cual los niños de esta finca pueden asistir? ¿Dónde está?

Sí sí, ¿cuántos años necesita cumplir un niño para empezar en la escuela?
D1.1.2 Have any (provisional) titles to land been received by beneficiaries on this finca? Will those be individual or group titles?

¿Han recibido Uds. algún tipo de título para la tierra?

Sí sí, ¿cuál tipo de título es?

¿Son estos títulos individuales o pertenece al grupo?

D3.2 What are some of the more important ways that the parcels differ from each other? (Pay attention to mention of soil quality, humidity, elevation, incline, existing improvements, and any other difference deemed important by informants.) Did they have different plants or improvements/constructions (e.g. irrigation, clearings, terraces) on them when the beneficiaries first came on this finca?

Ahora, me gustaría entender las diferencias entre las parcelas/los trabajadores en la finca. ¿Qué son las diferencias más importantes entre las parcelas/los trabajadores? (Por ejemplo, tamaño, calidad de suelos, humedad, altura, pendiente...)

¿Tenían algunos mejoras diferentes cuando las/los recibieron? Por ejemplo, árboles de café, sistemas de riego, alguna construcción? ¿Y tienen todavía estas diferencias?
COSTUMBRES DE FORMA DE TRABAJAR EN LA FINCA

D1.2.1 Does a beneficiary receive an advance payment for subsistence? How is the payment for a day's work determined on this finca? Is it based on time worked, tasks completed, unrelated to either? What is the amount paid? Does that payment become a debit on the family's credit account? Is some payment given in the form of food or other goods?

¿Recibe el beneficiario algún pago para la subsistencia antes de la cosecha? ¿Cómo se llama ese?

¿Es dinero o comida o qué?

¿Cuánto recibe el beneficiario?

¿Siempre reciben todos los beneficiarios lo mismo?
Si no, ¿por qué hay diferencias?

¿Es este de acuerdo con los días trabajados, las tareas cumplidas, o qué?

¿Es este un crédito o una donación? Después de la cosecha, ¿tiene el beneficiario cancelar esa deuda?
D1.2.2 What happens if a beneficiary is sick and unable to work one day? Do they still receive a payment? How much? Are there any rules about how many sick-days a beneficiary can have?

¿Qué pasa si el beneficiario está enfermo y no puede trabajar un día?

¿Recibe todavía el/la ______________ ?

¿Recibe lo mismo como había trabajado?

¿Qué son los costumbres en esta finca con respecto a los números de días que un beneficiario puede estar enfermo?

D1.2.3 Have any beneficiaries ever been asked to leave this finca? If so, about how many in the last year?

Tengo interés en la historia de los beneficiarios en la finca. En el pasado, habían echado (o expulsado) uno o más de uno beneficiario por alguna razón? ¿En el año pasado (es decir en 1989), más o menos cuántos beneficiarios habían echado de la finca? Y, ¿cómo se llama esa?
D1.2.4 Describe a recent incident or two in which a beneficiary was asked to leave the finca.

Por favor, describan uno de los ejemplos más recientes cuando un beneficiario salió de la finca porque era expulsado: cuándo ocurrió, qué era las razones, qué pasó, etc.

D1.2.5 What kinds of things can lead to a beneficiary being kicked off the finca? Rephrase: What are some of the things that, if a beneficiary were to do them, could lead to being asked to leave the finca? Is this likely to happen? (Listen to how they express likelihood/probability.)

¿Qué son algunos de las causas para echar un beneficiario? O, ¿qué son algunas de las cosas que, si las haga el beneficiario, quizá estará echado? ¿Es muy probable que suceda?
D1.3.1 Is there some kind of paper or book on the finca that is used to record what days a beneficiary works? (If yes, ask to see it.) What is it called? When was the last time an entry was made? Who writes in the book? Who can see it?

¿Hay un papel o un libro o algo en la finca en que se escriben los días que trabaja cada beneficiario?

Si sí, ¿cómo se llama?
¿Es posible para mí ver ese ________________________ ?
¿Quién escribe en el/la ________________________ ?
¿Quién puede mirarlo?

¿Cuándo fue la última vez escribir algo en ello?

¿Qué información contiene?
D1.3.2 Does anyone supervise the work of the beneficiary on the parcel? If so, who is that person (technician, caporal, other)? If someone other than the technician, how is that person chosen? Does this supervision occur frequently? About how often (pay attention to words used)? Does the supervisor have the authority to impose sanctions? If so, what kinds of sanctions and for what reasons? Is this done often?

Algunas veces, ¿hay alguien para dirigir o vigilar el trabajo del beneficiario en su parcela/trabajadero?

¿Qué son las palabras para describir esa persona y la cosa que hace?

¿Quién hace eso? Si no es el técnico, ¿cómo están escogidos esas personas?

¿Qué es la frecuencia con que el _________ visita la parcela/el trabajadero?

¿Tiene el _________ la autoridad para sancionar al beneficiario?

Sí sí, ¿qué tipo de sanciones y por causa de qué?

¿Qué es la frecuencia con que el _________ sanciona los beneficiarios?
D1. Gen. What are the most important factors that cause a beneficiary on this finca to work hard and exert a lot of effort?

En las opiniones de Uds., ¿qué son las cosas o los factores más importantes para que el beneficiario en esta finca tenga mucho interés en trabajar muy fuertemente con mucho entusiasmo?

D1.1.1 How are the profits from this crop distributed? Rephrase: When the harvest is sold, how much money does the beneficiary family receive? How is the payment received by the household related to the amount of their harvest? (Pay attention to any reference to the payments proportional to contributions. Get specifics about bookkeeping, methods and timing of distribution, amounts withheld and purpose of withholding, etc.)

¿Cuando venden Uds. su cosecha, cuánto dinero recibe la familia beneficiaria? ¿Recibe precisamente el valor de su cosecha, o hay una rebaja en eso? ¿Qué es la relación entre el valor de la cosecha de la familia y el dinero que recibe?
GROUP MARKETING

D3.1.1 Are there any products from this finca that have been sold by a group of more than one beneficiary?

¿Hay algunos cultivos de esta finca que habían vendido por un grupo de más que uno beneficiario?

D3.1.2 What are those products?

¿Qué son esos cultivos?

D3.1.3 For each of the products named ask the following:

D3.1.3.a About when did the last group sale occur?

Más o menos, ¿cuándo ocurrió la última venta del grupo?

D3.1.3.b About how many beneficiaries on this finca participated in the group sale (all, half, 20, etc.)?

Más o menos, ¿cuántos beneficiarios participaron en la venta?

D3.1.3.c If everyone did not participate, why not?

Si todos no participaron, ¿por qué no?

D3.1.3.d About how many group sales have been made since the beginning of the previous harvest season?

Más o menos, ¿cuántas ventas en grupo habían hecho Uds. desde el principio de la cosecha?

D3.1.3.e In what units is this product sold?

¿Qué son las unidades en que se venden este cultivo?
D3.1.3.f What are the different kinds of buyers that this product can be sold to? (Describe including location, type of collection facility, type of sellers serviced/average volume per transaction, price ranges, reliability, approximate number of each type in area, advantages, disadvantages, etc.)

¿Qué son los tipos distintos de compradores a quienes Uds. pueden vender este cultivo? (Características: ubicación, precios, número, tipos de facilidades para coleccionar el producto, si compran solamente de pequeños o grandes vendedores, ventajas, desventajas...)

D3.1.3.g What are the different modes of payment? Do they differ by type of buyer?

¿Qué son las maneras distintas que los compradores les pagan a Uds.? ¿Depende esto en el tipo de comprador?
D3.1.3.h Are there differences in the quality of this product that affect the price and the type of buyer it can be sold to? What are the quality categories?

¿Hay algunas diferencias en la calidad de este producto que cambian el precio o el tipo de comprador a quien es posible venderlo?
¿Qué son las categorías de calidad?

D3.1.3.1 What are the different ways to transport the product to the buyer?

¿Qué son las maneras distintas para transportar el cultivo al comprador?
D3.1.3.j How many people are usually involved in carrying out the sale and how much time do they spend on it? What are the different ways that time is spent in marketing this product? (Inquire specifically about meetings, gathering information about sellers, grading and preparation of product, transport, time spent at buyer's facility, process of distributing revenues, bookkeeping, etc.)

¿Qué son las maneras distintas para gastar tiempo en la comercialización de este cultivo? Es decir, para hacer una venta el grupo, ¿cuánto tiempo gastan Uds. en cosas como reuniones, conocer información sobre los compradores distintos, preparar el cultivo para venderlo, transportar el cultivo, esperar en la facilidad del comprador, distribuir los ingresos a los participantes, contabilidad, etc.? ¿Cuántas personas hacen esas cosas?
D3.1.3.1 What are the different kinds of payments and fees that a beneficiary may be required to pay in order to participate in the group marketing activity?

¿Qué son los pagos o cuotas que un beneficiario tiene que pagar para participar en la venta con el grupo?
D3.3.1.b Are there any other costs that the beneficiary must pay (on their own) after the harvest to sell the product with the group?

¿Hay otros gastos después de la cosecha que tiene que pagar el beneficiario individualmente aunque va a vender con el grupo?

D3.1.3.m How is the revenue from the group sale distributed to the beneficiaries? (DETAILS!) (SEE D1.1.1 p.15)

Después de una venta por parte del grupo, ¿exactamente cómo los distribuyen Uds. los ingresos de la venta a cada persona? ¿Qué es la relación entre el valor de la cosecha de la familia y el dinero que recibe?
D3.1.3.n If a beneficiary sells the product individually, what are the different kinds of costs associated with marketing that have to be paid after the harvest? (Consider categories in D3.1.3.k above.)

Si un beneficiario vende su cultivo individualmente, ¿qué son los distintos tipos de costos que tiene que pagar después de la cosecha para comercializarlo?

D3.1.3.o When does the harvest begin for this product? When does it end? About how many times during the harvest season are sales made?

¿Cuándo empieza la cosecha de este cultivo? ¿Cuándo termina? Más o menos, ¿cuántas veces durante esta época se hacen venta?

D3.1.3.p Can the product be stored? How long?

¿Es posible almacenar o guardar este cultivo? ¿Cuánto tiempo?
D3.2.1 In the past year were there any agricultural inputs used on this finca that were purchased by a group of more than one beneficiary?

¿Hay algunos insumos usados en la finca en este año que eran comprados por un grupo de más que uno beneficiario?

D3.2.2 What are those inputs?

¿Qué son esos insumos?

D3.2.3 For each of the inputs named ask the following:

D3.2.3.a About when did the last group purchase occur?

Más o menos, ¿cuándo ocurrió la última compra por el grupo?

D3.2.3.b About how many beneficiaries on this finca participated in the group purchase (all, half, 20, etc.)?

Y, más o menos, ¿cuántos beneficiarios participaron en la compra?

D3.2.3.c If everyone did not participate, why not?

Si todos no participaron, ¿por qué no?

D3.2.3.d In what units is this input purchased?

¿Qué son las unidades en que se compran este insumo?
D3.2.3.e What are the different kinds of sellers that this input can be purchased from? (Describe including location, type of buyers serviced/average volume per transaction, approximate number of each type in area, price ranges, advantages, disadvantages, etc.)

¿Qué son los tipos distintos de vendedores de quienes Uds. pueden comprar este insumo? Características: ubicación, precios, números que están cerca, si venden solamente a pequeños o grandes compradores, ventajas, desventajas,...
D3.2.3.f Are there differences in the quality of this input that affect the price and the type of seller it can be bought from? What are the quality categories?

¿Hay algunas diferencias en la calidad de este insumo que cambian el precio o el tipo de vendedor de quien es posible comprarlo?
¿Qué son las categorías de calidad?

D3.2.3.g What are the different ways that payment can be made to the seller? (Some ways may apply only to certain types of sellers. Look for categories such as cash, in kind, labor, and different types of credit arrangements.)

¿Qué son las maneras distintas que Uds. pueden pagar un vendedor?
(Ejemplos: crédito, efectivo, mano de obra, un parte de la cosecha, productos, ...)
¿Depende eso en el tipo de vendedor?
D3.2.3.h When is this input used during the growing season? What crop(s) is it used on?
¿Para cuál cultivo se usan este insumo? ¿Cuándo se usan?

D3.2.3.1 About how many times during the season are purchases of this input made?
Más o menos, ¿cuántas veces durante un ciclo de cultivación del cultivo compran Uds. este insumo?

D3.2.3.j Can the input be stored? How long?
¿Es posible almacenar o guardar este insumo? ¿Cuánto tiempo?

D3.2.3.k About how many group purchases have been made for use in the current or most recent growing season?
Más o menos, ¿cuántas compras de este insumo han hecho el grupo para usar en este época de cultivación?
D3.2.3.1 What are the other kinds of expenses that the group has to pay (in addition to the price of the input) in order to make a purchase of this input? (Possible categories: transportation, capitalization, packaging, travel or salary to active participants)

Más el precio del insumo, ¿qué son los otros gastos que el grupo tiene que pagar para comprar este insumo? (Ejemplos: TRANSPORTACIÓN, capitalización, distribución, pago o salario a ellos quienes viajan afuera de la finca para hacer la compra,...)
D3.2.3.m What are the different kinds of payments and fees that a beneficiary may be required to pay in order to participate in the group marketing activity? (Possible categories: transportation, capitalization, packaging, travel or salary to active participants)

D3.3.2.a Are there any payments that the beneficiary must give to the group in order to participate in the group purchase?

¿Qué son los tipos distintos de pagos o cuotas que un beneficiario tiene que pagar al grupo para participar en la compra con el grupo? (transportación, capitalización, salarios,...)

D3.3.1.b Are there any other costs that the beneficiary must pay to make a purchase with the group?

¿Hay otros gastos que el beneficiario tiene que pagar individualmente aunque esta haciendo la compra con el grupo?
D3.2.3.n What are the different ways that the beneficiary can reimburse the group for their share of the expenses?

¿Qué son las maneras distintas que el beneficiario puede pagar el grupo por su porción de los gastos?

D3.2.3.p If a beneficiary purchases the input individually, what are the different kinds of costs associated with marketing?

Si un beneficiario compra este insumo individualmente, ¿qué son los tipos distintos de gastos que tiene que pagar para hacer la compra? (TRANSPORTACION)
D3.2.3.0 How many people are usually involved in carrying out the purchase and how much time do they spend on it? What are different ways that time is spent in the purchase of this input? (Inquire specifically about meetings, decisions about how much to purchase, information on sellers, packaging and distribution of input, transport, record keeping, time spent at seller's facility.)

¿Qué son las maneras distintas para gastar tiempo en la compra de este insumo? Para hacer una compra en grupo, ¿cuánto tiempo gastan Uds. en cosas como reuniones, conocer información sobre los vendedores, transportar el insumo, esperar donde está el vendedor, preparar y distribuir el insumo, contabilidad, etc.? ¿Cuántas personas hacen esas cosas?

D3.2.3.g What are the different ways to transport the input from the seller?

¿Qué son las maneras distintas para transportar el insumo del vendedor hasta la finca?
FARM LEVEL SURVEY
1. ¿Cuántos beneficiarios hay en la finca actualmente?

2. ¿Cuál es la extensión de la finca?
   1-caballería
   2-hectárea
   3-manzana
   4-otro

3. ¿Son todos de estas (ext.) (unid.) en [parcelas] [trabajaderos], o hay tierra en la finca que no está en [parcelas] [trabajaderos]? ¿Cuánta?
   5-otro

4. ¿Cuál es la extensión normal de [una parcela] [un trabajadero] aquí en la finca?
   1-manzana
   2-cuerda
   3-vara
   4-hectárea
   5-tarea
   6-otro

5. ¿Tiene cada beneficiario solo [una parcela] [un trabajadero] en la finca o tiene dos [parcelas] [trabajadores] o más? (pedazos)
6. ¿En qué mes y año empezaron los beneficiarios a trabajar en esta finca por primera vez?
   mes ___
   año ___

7. ¿En qué mes y año empezaron los beneficiarios a vivir aquí en la finca?
   mes ___
   año ___
   todavía no viven en la finca ___

8. Además que el español, ¿qué otras lenguas hablan los beneficiarios en esta finca?

   a. ¿Cuántos beneficiarios hablan _lengua_?

<table>
<thead>
<tr>
<th>Lengua</th>
<th>No. hablantes</th>
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<tr>
<td>Español/Castilla</td>
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9. Antes de venir a la finca, ¿estaban algunos de Uds. en un grupo junto con otros de los beneficiarios aquí? Es decir, ¿estaban algunos de Uds. juntos como miembros de una asociación para pedir tierra, una organización de campesinos, algún sociedad, o una cooperativa?

1-sí
2-no

IF YES:

a. ¿Cuál era el nombre del grupo o su propósito (objeto)?
b. ¿Cuántos de los beneficiarios actuales eran miembros del grupo antes de venir a la finca? (o cuando vinieron)
c. ¿Existe este grupo todavía?
   IF YES TO c.:
   d. ¿Cuántos beneficiarios son miembros del grupo todavía?

<table>
<thead>
<tr>
<th>a. grupo</th>
<th>b. eran</th>
<th>c. existe</th>
<th>d. son</th>
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10. ¿Hay una escuela en la finca?

1-sí
2-no

IF YES:

a. ¿Cuántas aulas tiene la escuela? aulas __

b. ¿Cuántos maestros o maestras están enseñando en la escuela ahorita? maestros __

c. ¿Cuántos niños están inscritos en la escuela ahorita? niños __

d. ¿Hasta cuál grado se enseña en la escuela? grado __

IF NO:

e. ¿A qué distancia está la escuela donde asisten los niños? kilómetros __

f. ¿Cuánto tiempo necesitan los niños para llegar a la escuela? horas __

g. ¿Hasta cuál grado se enseña en la escuela? grado __
11. ¿Tienen sus casas en la finca todos los beneficiarios, algunos de los beneficiarios, o nadie?

1-todos
2-algunos
3-nadie

IF "1-todos", GO TO QUESTION #12.

IF "2-algunos":
a. ¿Cuántos beneficiarios tienen casas en la finca?
NOW GO TO QUESTION #12.

IF "3-nadie", SKIP TO QUESTION #15.
12. Tengo aquí una lista de tipos de casas, y me gustaría saber más o menos cuántas casas de cada tipo existen en la finca.

a. ¿Hay casas en la finca de tipo *(type)*?
b. ¿Cuántos hay de ese tipo?

<table>
<thead>
<tr>
<th>Tipo</th>
<th>Número</th>
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<tbody>
<tr>
<td>Rancho (techo de palma o paja)</td>
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<tr>
<td>forrada de caña</td>
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<td>forrada de regla rústica</td>
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<td>forrada de tabla rústica</td>
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<tr>
<td>Bajareque</td>
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<tr>
<td>techo de manaco/barro con caña</td>
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<td>Adobe</td>
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<td>Madera</td>
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</table>
13. ¿Hay agua en la zona urbana?
   IF YES:
   a. ¿Tiene cada casa un pozo o llave?
   IF NO TO a.:
   b. ¿Cuántos pozos o llaves hay en la zona urbana?

14. ¿Tiene cada casa una letrina?
   1-todas
   2-ningunas
   3-algunas (¿cuántas? ___)
   IF YES OR SOME, MARK "1" IN QN #15 AND SKIP TO QN #16.

15. ¿Hay letrinas en la finca?
   IF NO, MARK "0" IN QN #16 AND SKIP TO QN #17.

16. ¿Cuántas letrinas hay en la finca?

17. ¿Hay un puesto de salud en la finca?

18. ¿Hay un promotor de salud o una enfermera en la finca?
   1-sí, siempre
   2-sí, algunas veces
   3-nunca

19. ¿Hay molino de nixtamal en la finca?

20. COFFEE FARMS ONLY: ¿Hay un beneficio de café en la finca?
   3-sí, pero no funciona
21. ¿Han recibido los beneficiarios [escrituras] [una escritura] de la tierra?

1-sí, escritura en grupo
2-sí, todos han recibido escrituras individuales
3-sí, algunos han recibido escrituras individuales
4-no hay escritura[s]

**IF RESPONSE IS #1 OR #2 (ALL HAVE TITLES):**

a. ¿En qué mes y año recibieron Uds. [las escrituras] [la escritura]?

(las primeras escrituras)

<table>
<thead>
<tr>
<th>mes</th>
<th>año</th>
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(las últimas escrituras)

<table>
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<th>mes</th>
<th>año</th>
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</table>

**IF RESPONSE IS #3 (SOME HAVE TITLES):**

b. ¿Cuántos beneficiarios tienen escrituras?

c. ¿En qué mes y año recibieron ellos las escrituras?

(las primeras escrituras)

<table>
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<tr>
<th>mes</th>
<th>año</th>
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(las últimas escrituras)

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<th>mes</th>
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QUESTION #22 FOR INTA FARMS ONLY
22. ¿Tienen Uds. una ECA? (Empresa Campesina Asociativa)
   1-sí
   2-no

IF YES:
   a. ¿Cuándo formaron Uds. la ECA? mes ___ año ___

IF NO:
   b. ¿Piensan Uds. en formar una ECA? ___

   3-tal vez

IF YES TO b.:
   c. ¿Cuándo piensan Uds. en formarlo? mes ___ año ___

ALL FARMS
23. ¿Cuándo empezó el [técnico] [asesor]
    actual a trabajar aquí en la finca?

   a. ¿Había otro [técnico] [asesor] antes? (MARK RESPONSE BELOW AFTER "otro?")

IF YES:
   b. ¿Cuándo empezó este otro [técnico]
      [asesor] a trabajar en la finca?

RETURN TO a.

técnico/asesor actual ___ ___
otro? ___ ___
otro? ___ ___
otro? ___ ___
otro? ___ ___
otro? ___ ___
otro? ___ ___
Quiero saber si [todas las parcelas] [todos los trabajadores] son bien parecidos o si hay diferencias entre ellas/os.
Por ejemplo...

24. ¿Tienen [todas las parcelas] [todos los trabajadores] la misma calidad de tierra o suelos?

25. ¿Tienen [todas las parcelas] [todos los trabajadores] la misma pendiente o inclinación?

26. ¿Tienen [todas las parcelas] [todos los trabajadores] el mismo acceso al agua para agricultura?

27. ¿Tienen [todas las parcelas] [todos los trabajadores] el mismo acceso a la carretera?

28. ¿Pega el aire lo mismo a [todas las parcelas] [todos los trabajadores]?

29. ¿Es la distancia entre [la parcela] [el trabajadero] y la casa lo mismo para todos los beneficiarios?

30. ¿Tenían [todas las parcelas] [todos los trabajadores] los mismos tipos y números de árboles cuando empezaron?

31. ¿Tenían [todas las parcelas] [todos los trabajadores] las mismas mejoras cuando empezaron?

1-sí, lo mismo o casi lo mismo
no, hay diferencias
2-pocas
3-muchas
Ahora tengo unas preguntas sobre sus cultivos aquí en la finca.

**QUESTION #32 FOR CORN FARMS ONLY:**
32. Para la última siembra de maíz aquí en la finca,
   a. ¿cuándo lo sembraron?  
   b. ¿cuándo empezó la cosecha?  
   c. ¿cuándo terminó la cosecha?

**QUESTIONS #33-#34 FOR COFFEE FARMS ONLY:**
33. Cuando los beneficiarios vinieron a la finca por primera vez, ¿cuál era la extensión del café que ya estaba sembrado?
   - 1-cabs.  
   - 2-has.  
   - 3-mzs.  
   - 4-otro

IF NO OLD COFFEE, SKIP TO QUESTION #34.
   a. ¿Cuántos años tiene este café viejo ahorita?
   b. ¿Tiene cada [parcela] [trabajadero] café viejo?
   c. ¿Tiene cada [parcela] [trabajadero] la misma extensión de café viejo?

34. ¿Cuándo empezó la última cosecha de café aquí en la finca?
   a. ¿cuándo terminó?
Tengo aquí una lista de cosas como, por ejemplo, los tipos de semillas y las fechas de sembrar. Todavía estamos hablando de su (última siembra de maíz/cultivo de café del año pasado).

La cosa que yo quisiera saber es si cada beneficiario podía hacer algo distinto en su [propia parcela] [propio trabajadero] o si todos de Uds. hicieron lo mismo porque así había decidido la asamblea general, la junta directiva, algún comité o el técnico.

Entonces, vamos a empezar con los tipos de semillas.

35. En su cultivo del (maíz/café) en el año pasado, ¿podía cada beneficiario usar cualquier tipo de _semilla_ que le gustó, o debían todos usar lo mismo tipo? ¿podía cada beneficiario _sembrar_ en cualquier fecha que le gustó o debían todos los beneficiarios _sembrar_ en la misma fecha?

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<th>Grupo</th>
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Ahora tengo unas preguntas sobre sus compras de abonos y fertilizantes en este año desde que empezó la lluvia. Me gustaría preguntarles de todas sus compras que Uds. hicieron en un grupo.

38. Entonces, pensando en todas las compras que Uds. han hecho junto en un grupo desde que empezó la lluvia en 1989, ¿Cuántas veces han comprado Uds. abonos y fertilizantes hasta ahora?

37. Empezamos con la última compra que hicieron Uds...

a. ¿Cuál tipo o marca compraron?
b. ¿En qué fecha lo compraron?
c. ¿Cuánto compraron? ¿Qué cantidad?
d. (la unidad de medida para la compra)
e. ¿A qué precio por (unidad) lo compraron?
f. ¿Cuánto pagaron por todo de la compra?
g. ¿En qué manera pagaron, en...? READ CHOICES
h. ¿A quién lo compraron, a...? READ CHOICES
i. ¿Qué es la distancia en kilómetros entre la finca y el vendedor?
j. ¿Cuántos beneficiarios participaron en la compra?
k. ¿Cuánto pagaron Uds. para transporte en todo?
l. ¿Cuánto pagaron Uds. para viáticos en todo?
m. ¿Cuánto pagaron Uds. para otro gastos de la compra?

Entonces, incluyendo lo que Uds. tuvieron que pagar en gastos y para el fertilizante, ¿cuánto pagaron Uds. por todo?

o. ¿Qué tuvo que pagar cada beneficiario por (unidad) ?
p. ¿Qué más tuvo que pagar cada beneficiario?
q. ¿Cuántas personas viajaron fuera de la finca para hacer la compra?
r. ¿Cuántas días viajaron ellos?
s. ¿Cuántas horas usó la junta directiva en reuniones para planificar la compra?
t. ¿Cuántas horas usaron Uds. en reuniones o asambleas generales para platicar sobre la compra y distribuirla?

CHECK IF SUPPLEMENT USED ___
| a. tipo/marca | 1 | 2 | 3 | 4 |
| b. fecha | | | | |
| quincena | | | | |
| mes | | | | |
| año | | | | |
| c. cantidad | | | | |
| d. unidad | | | | |
| e. precio | | | | |
| f. total | | | | |
| g. manera pagar | | | | |
| h. vendedor | | | | |
| i. distancia | | | | |
| j. núm. benef. | | | | |
| k. transporte | | | | |
| l. viáticos | | | | |
| m. otro gastos | | | | |
| n. net? | | | | |
| o. costo benef. | | | | |
| p. otro costo | | | | |
| q. personas | | | | |
| r. días | | | | |
| s. junta directiva | | | | |
| t. asamblea gen. | | | | |
| d. unidades | 1. quintales | 2. libras | 3. litros | 4. galones | 5. otro | 6. otro |
| 1-efectivo/pisto | 2-cheque | 3-crédito | 4-otro | 5-otro | 6-otro |
| 1-exportador/importador | 2-intermed. en la finca | 3-intermed. en el pueblo | 4-agropecuario | 5-otro | 6-otro |
| g. manera pagar | | | | |
| n. a quien lo compraron | | | | |
| 1-efectivo/pisto | 2-cheque | 3-crédito | 4-otro | 5-otro | 6-otro |
Ahora tengo unas preguntas parecidas pero estas son sobre sus ventas de (maíz/café) desde la última cosecha. Me gustaría preguntarles de todas las ventas que Uds. hicieron en un grupo.

38. Entonces, pensando en todas las ventas que Uds. han hecho en grupo desde la última cosecha en 1989, ¿Cuántas veces han vendido Uds. (maíz/café) hasta ahora?

39. Empezamos con la última venta que hicieron Uds...

   a. ¿En qué fecha lo vendieron?
   b. ¿Cuánto vendieron el grupo? ¿Qué cantidad?
   c. (la unidad de medida para la venta)
   d. ¿A qué precio por (unidad) lo vendieron?
   e. ¿Cuánto recibieron por todo de la venta?
   f. COFFEE FARMS ONLY: ¿Era el café de la primera o segunda calidad?
   g. ¿A quién lo vendieron, a...? READ CHOICES
   h. ¿Qué es la distancia en kilómetros entre la finca y el comprador?
   i. ¿Cuántos beneficiarios participaron en la venta?
   j. ¿Cuánto pagaron Uds. para transporte en todo?
   k. ¿Cuánto pagaron Uds. para viáticos en todo?
   l. ¿Cuánto pagaron Uds. para otro gastos de la venta?
   m. Después de haber pagado todos los gastos, ¿cuánto dinero les quedó para Uds.?
   n. ¿Cuánto recibió cada beneficiario por (unidad) ?
   o. ¿Cuánto tuvo que pagar cada beneficiario para participar en la venta?
   p. ¿Cuántas personas viajaron fuera de la finca para hacer la venta?
   q. ¿Cuántas días viajaron ellos?
   r. ¿Cuántas horas usó la junta directiva en reuniones para planificar la venta?
   s. ¿Cuántas horas usaron Uds. en reuniones o asambleas generales para platicar sobre la venta y prepararla?

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40. ¿Algunas veces reciben los beneficiarios en esta finca pagos o jornales por tareas? 

IF YES:  
a. Si un beneficiario está enfermo y no puede trabajar un día cuando hay pagos o jornales, ¿todavía lo recibe ese beneficiario el pago aunque no trabajó?  
   1-sí  
   2-no  
   3-depende en 

IF YES OR DEPENDE:  
b. ¿Recibe lo mismo como había trabajado?  
   1-mismo  
   2-parte 

41. Después de la última cosecha, ¿recibieron todos los beneficiarios algún písto o crédito?  

1-sí  
2-no  
3-depende en su cosecha  
4-otro 

IF YES OR DEPENDE:  
a. ¿Recibieron todas las familias beneficiarias un pago mínimo después de la cosecha?  

IF YES:  
b. ¿Cuánto recibieron? quetzales ___

EXPLAIN PAYMENT SYSTEM:
42. ¿Hay un libro o algunos papeles en que alguien escribe los días que trabaja cada beneficiario? Por ejemplo: un cuaderno, un libro de cuentas, o algunas hojas.

VERIFY: ¿Se escribe en eso los días que trabaja el beneficiario?

IF YES:

a. ¿Cada cuándo se escribe en eso?

1-diariamente
2-más que una vez por semana
3-una vez por semana
4-más que una vez por mes
5-una vez por mes
6-depender de si hay pagos
7-otro ________________

b. ¿Cuándo fue la última vez que alguien escribió en eso? ________________

43. ¿Cuántos beneficiarios se fueron de la finca desde que empezó la lluvia en 1989 hasta ahora?

a. De estos (núm.), ¿cuántos los sacaron o expulsaron por cualquier razón? ________________

44. ¿Cuántos beneficiarios se fueron de la finca en el año antes, desde que empezó la lluvia en 1988 hasta que la empezó en 1989?

a. De estos (núm.), ¿cuántos los sacaron o expulsaron por cualquier razón? ________________

45. ¿Cuántos beneficiarios se fueron de la finca en el año antes, desde que empezó la lluvia en 1987 hasta que la empezó en 1988?

a. De estos (núm.), ¿cuántos los sacaron o expulsaron por cualquier razón? ________________
46. Si un beneficiario no está trabajando bien o no está colaborando bien, ¿qué son las cosas que se hace en esta finca para mejorar la situación sin sacar o expulsar al beneficiario? Por ejemplo, en esta finca...

a. ¿Usan Uds. (multas de dinero)?

b. ¿Cuáles son (otras) cosas que Uds. usan en esta finca?

AFTER COMPLETING LIST, GO TO BEGINNING AND ASK:

c. ¿Cuántas veces desde que empezó la lluvia han usado (una multa de dinero) en esta finca?

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47. ¿Pidieron Uds. un crédito para su _última siembra de maíz/cultivo de café del año pasado)?

IF YES, PROCEED TO a.; IF NO, SKIP TO g.: 

a. ¿A quién lo pidieron? ¿Qué institución?
   1-Fundación del Centavo 
   2-BANDESA 
   3-Comunidad Económica Europea 
   4-otro ________

b. ¿Cuántos quetzales pidieron? 
   1-finca 
   2-beneficiario 
   nivel ______

c. ¿Cuándo lo pidieron? 
   quincena _____  
   mes _____  
   año _____

d. ¿Cuánto dinero recibieron? 
   Q ________

   IF RECEIVED ANY: 
   e. ¿Cuándo lo recibieron el dinero? 
   quincena ________  
   mes ________

   f. ¿Para cuándo lo necesitaban el dinero? 
   quincena ________  
   mes ________

   IF DID NOT ASK FOR CREDIT: 

g. ¿Por qué no pidieron Uds. un crédito?

OPEN ENDED:
1. ¿Cuándo empezó Ud. a trabajar en esta finca como beneficiario?  
   mes ____  
   año ____

2. ¿Dónde vivieron Uds. antes de ser beneficiarios en esta finca?  
   READ CHOICES:  
   1-aquí en la finca  
   2-aquí en el mismo municipio  
   3-mismo departamento  
   4-fuera del departamento  

   a. IF OUTSIDE DEPARTMENT:  
   ¿Estaba Ud. en ....?  
   READ CHOICES:  
   1-la costa  
   2-el altiplano  
   3-el oriente  
   4-el norte  
   5-la capital
3. ¿Cuántos años ha cultivado Ud. el café?
   1-este año (1989) fue la primera vez
   2-este año y el año pasado
   3-tres años, incluyendo este año
   4-cuatro años, incluyendo este año
   5-cinco años, incluyendo este año
   6-más de cinco años

4. ¿Han recibido Uds. la escritura de [su parcela] [la finca]?
   1-sí
   2-no
   a. IF YES: ¿Cuándo recibieron la escritura?
      mes ___
      año ___

5. ¿Cuál es la extensión de su [parcela] [trabajadero] aquí en la finca?
   extensión ___
   unidades ___
   1-manzanas  4- hectáreas
   2-cuerdas    5- tareas
   3-varas      6- otro _________
   7- otro _________
6. a. ¿Qué lenguas habla Ud., señor?
   b. Sólo el español (la castilla)?
   c. ¿Qué lenguas habla Ud., señora?
   d. Sólo el español (la castilla)?

   MARK ALL THAT APPLY (NON-FLUENCY IN PARENTHESES)

   1- español, castilla
   2-__________________________
   3-__________________________
   4-__________________________

7. Y ahora, tengo unas preguntas sobre Uds. y sus hijos. Empezamos con Uds. dos.

   a. ¿Cuántos años ha cumplido Ud.?
   b. ¿Qué grado de escuela ganó?

8. ¿Cuántos hijos tienen Uds. aquí en su casa?

   Empezamos con el mayor.
   a. OPTIONAL: ¿Cuál es su nombre?
   b. ¿Es varón o mujer?
   c. ¿Cuántos años ha cumplido (nombre)?
   d. ¿Está inscrito en la escuela?
   e. IF YES: ¿En qué grado está inscrito?
      IF NO: ¿Qué grado ganó?

   CAUTION: BE SURE TO STRESS CUMPLIDO FOR AGES!
<table>
<thead>
<tr>
<th>NOMBRE</th>
<th>SEXO</th>
<th>EDAD</th>
<th>INSCR</th>
<th>GRADO</th>
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<tbody>
<tr>
<td>Señor</td>
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<td>___</td>
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<td>Señora</td>
<td>2</td>
<td>___</td>
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</table>

**Sexo**
1-varón  
2-mujer

**Inscr**
1-sí  
2-no

**Grado**
1-5i  
2-no

9. ¿Tienen Uds. hijos que tienen [parcela] [trabajadero] propia/o en la finca?

   1-sí  
   2-no

   a. IF YES: ¿Cuántas/os [parcelas] [trabajadores] hay entre ellos?
10. Además de sus hijos, ¿tienen los dos de Uds. otros familiares que viven o trabajan aquí en la finca? 

Por ejemplo, ¿tienen Uds. (READ LIST) que viven o trabajan en la finca?

**PROBE!!!**

IF YES:

a. Señor, ¿cuántos (padres) tiene Ud. en la finca?
b. Señora, ¿cuántos (padres) tiene Ud. en la finca?
c. ¿Cuántos de esos viven en la misma casa con Uds.?
d. ¿Cuántos de ellos tienen [parcela] [trabajadero] propia/o?

<table>
<thead>
<tr>
<th>Pariente</th>
<th>número (a)</th>
<th>número (b)</th>
<th>casa (c)</th>
<th>par./trab. (d)</th>
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<td>Compadres/madres</td>
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**d-casa** 2-no  
1-sí 3-a veces

e. Entonces, entre Uds. y todos sus parientes en la finca, hay ____ [parcelas] [trabajadores]. ____
Ahora, estas son preguntas sobre el café que Ud. tiene en su [parcela] [trabajadero] aquí en la finca. Quiero aprender algo de la última cosecha que Ud. ha tenido en este verano.

11. ¿Cuándo empezó la cosecha de café en su [parcela] [trabajadero] este verano?
   quincena ___ mes ___ año ___

12. ¿Cuándo terminó la cosecha?
   quincena ___ mes ___

13. Incluyendo café viejo y café nuevo, ¿cuál es la extensión actual en que Ud. tiene café sembrado en su [parcela] [trabajadero]?
   extensión ___ unidades ___

14. De estas (ext.) (unid.) de café en su [parcela] [trabajadero], ¿qué extensión ha sembrado Ud. con café nuevo desde que vino a la finca como beneficiario?
   extensión ___ unidades ___

15. ¿Había café ya sembrado en su [parcela] [trabajadero] cuando Ud. vino a la finca?
   1-sí  
   2-no

   a. IF YES: ¿Cuál es la extensión actual de café viejo en su [parcela] [trabajadero] que Ud. no sembró?
   extensión ___ unidades ___

DATA CHECK: DOES #13 = #14 + #15? IF NOT, RESOLVE.

COPY TO TABLE ON NEXT PAGE: LAND AREAS FROM QNS #14 AND #15

COPY TO BOTTOM OF NEXT PAGE: ARRIVAL YEAR FROM PAGE #1, QN #1.

Unidades:
1-manzanas 4- hectáreas 7-otro ________
2-cuerdas 5-tareas 8-otro ________
3-varas 6-otro ________
Ahora, tengo unas preguntas sobre todas las veces que Ud. ha sembrado café aquí en su [parcela] [trabajadero].

16. Empezamos con el año pasado, es decir 1989...

a. ¿Transplantó Ud. café del almacen a su [parcela] [trabajadero] en (year)?

IF YES, CIRCLE YEAR ON CHART BELOW AND ASK:
b. ¿Qué extensión sembró?
c. ¿Ha empezado ese café a producir?

Y en el año antes de eso, el año (year)...
RETURN TO "a" UNTIL REACH ARRIVAL YEAR.

17. Entonces, ¿Ud. ha sembrado el café en su [parcela] [trabajadero] ______ veces distintas desde venir a la finca? ______ veces

18. IF PARCEL HAS OLD COFFEE:

a. Y el café que ya estaba sembrado cuando Ud. vino a la finca, ¿cuántos años tiene este café?
b. ¿Es todo este café viejo más o menos lo mismo o hay grupos más viejos?
c. ¿Produjo este café en la última cosecha?

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Unidades:
- 3-varas
- 1-manzanas
- 2-cuerdas
- 4-hecáreas
- 5-tareas

ARRIVAL YEAR: ______
19. Ahora, me gustaría preguntar de los insumos que Ud. usó en producir el café. Estamos hablando solamente de los insumos que usó Ud. mismo en su [parcela] [trabajadero] en el año 1989. Empezamos con fertilizantes y abonos...

<table>
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<th>Cant</th>
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unidades:
- 1-quintales
- 2-libras
- 3-litros
- 4-galones
- 5-otro
- 6-otro
- 7-otro
- 8-otro

20. Ahora me gustaría preguntarle del trabajo en su [parcela] [trabajadero] con las personas que viven en su casa. Les voy a leer el nombre de alguien de su familia y una lista de tareas o actividades para ver que es lo que hace cada persona y que tan seguido lo hace. Todavía estamos hablando del café en su [parcela] [trabajadero] aquí, en la finca. Empezamos con Ud., señor...
a. ¿Trabajó Ud. en (descombrar)?
b. IF YES: ¿Cuántos días trabajó/usó en eso?

REPEAT FOR EACH TASK THEN DO FAMILY (PAGES #4-#5).

c. ¿Ud. pagó jornales para (descombrar)?
   IF YES:
d. ¿Cuántos jornales pagó? ¿por cuántos días?

<table>
<thead>
<tr>
<th>Tarea</th>
<th>señor</th>
<th>señora</th>
<th>hombres</th>
<th>mujeres</th>
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DISCUSS CONFIDENTIALITY AND IMPORTANCE OF TRUE ANSWERS.

Pasando ahora a la última cosecha de café que Ud. tuvo en su [parcela] [trabajadero]...

21. ¿Cuántos quintales de café produjo su [parcela] [trabajadero] en la última cosecha? cereza/maduro ____
    pergamino ____

22. LOOK AT CHART ON PAGE #7 TO SEE WHICH OF THE COFFEE PRODUCED AND CIRCLE ON CHART BELOW:

   a. IF BOTH OLD AND NEW PRODUCED:
      ¿Es posible decir cuántos de estos quintales son de café nuevo y cuántos son de café viejo?

   b. IF EITHER OLD OR NEW PRODUCED BUT NOT BOTH:
      Entonces, todo lo de esta cosecha de _____ quintales es del café (nuevo/viejo). ¿verdad?

23. IF THERE IS A FURTHER BREAKDOWN FOR PRODUCING COFFEE:
    ¿Es posible decir cuántos de estos _____ quintales de café (nuevo/viejo) produjo la siembra de (year)?

<table>
<thead>
<tr>
<th>Siembra</th>
<th>Cereza</th>
<th>Perg.</th>
<th>Siembra</th>
<th>Cereza</th>
<th>Perg.</th>
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<td>_____</td>
<td>_____</td>
<td>Café Viejo</td>
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NOTE: ALL COFFEE PRODUCTION IN QUINTALES UNLESS OTHERWISE STATED
24. ¿Usó Ud. un tractor o algún tipo de maquinaria en este cultivo del café?  
   1-sí  
   2-no  

IF YES:  
   a. ¿Cuántas veces usó maquinaria?  

ASK FOR EACH TIME, BEGINNING WITH FIRST TIME:  
   b. ¿Qué tipo de maquinaria fue?  
   c. ¿Para qué tarea o actividad usó?  
      (¿Cuál era el propósito?)  
   d. ¿Para cuánto tiempo usó (en horas)?  

25. ¿Usó Ud. un vehículo o un caballo para acarrear adentro de la finca?  

REPEAT b.-d. ABOVE  

<table>
<thead>
<tr>
<th>Tipo de maquinaria</th>
<th>Tarea/Actividad</th>
<th>Horas</th>
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26. ¿Usó Ud. yunta de bueyes en este cultivo del café?  

IF YES:  
   a. ¿Cuántos días usó?
Estos son todas las preguntas que tengo sobre el cultivo de su [parcela] [trabajadero]. Ahora vamos a hablar de sus ventas de la cosecha. Pero, antes de empezar con esas preguntas, ¿quieren Uds. decirme algo sobre su cosecha... los insumos... el uso de mano de obra... u otra cosa de que hemos hablado?

COPY HARVEST BEGINNING DATES FROM PAGE #6, QUESTION #11.

Bueno. Entonces, vamos a hablar sobre la venta de su cosecha. Todavía estamos hablando de su cosecha de café que empezó

Me gustaría preguntarle de todas sus ventas desde el principio de la cosecha, incluyendo las ventas que hizo individualmente y las ventas que hizo en un grupo junto con otras personas.
27. Entonces, pensando en todas sus ventas desde el principio de la cosecha, ¿Cuántas veces ha vendido Ud. el café hasta ahora?

28. Empezamos con la última venta que tuvo Ud...
   
   a. ¿En qué fecha lo vendió?
   b. ¿Cuánto café vendió Ud.?
   c. (la unidad de medida para la venta)
   d. ¿A qué precio lo vendió?
   e. ¿Cuánto recibió por todo de la venta?
   f. ¿Era el café de la primera o segunda calidad?
   g. ¿A quién lo vendió el café, a un...?
   h. ¿Qué es la distancia en kilómetros entre la finca y el comprador?
   i. ¿Vendió en individual o junto con un grupo?

**IF IN GROUP:**
   
   j. ¿Cuánto pagó Ud. al grupo para transporte, viáticos u otro gastos de la venta?
   k. ¿Es esto por todo o por (unidad)?
   l. Después de haber pagado todos los gastos, ¿cuánto dinero le quedó para Ud.?
   m. ¿Cuántos días o horas usó Ud. en reuniones para platicar sobre la venta?
   n. ¿Cuántos beneficiarios participaron en la venta?
   o. ¿Cuánto café vendieron entre todos de Uds.?

**IF INDIVIDUALLY:**
   
   p. ¿Cuánto pagó Ud. para transporte en todo?
   q. ¿Cuánto pagó en viajes para Ud. o miembros de su familia para hacer la venta? Por ejemplo, en pasajes, comidas en comedores u otros gastos del viaje...
   r. Después de haber pagado todos los gastos, ¿cuánto dinero le quedó para Ud.?
   s. ¿Cuántos días o horas usó Ud. en viajar o negociar para hacer la venta?

CHECK IF SUPPLEMENT USED ___
<table>
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<th>a. fecha</th>
<th>b. cantidad</th>
<th>c. unidad</th>
<th>d. precio</th>
<th>e. total</th>
<th>f. calidad</th>
<th>g. comprador</th>
<th>h. distancia</th>
<th>i. indiv/gp</th>
<th>j/p. gastos</th>
<th>k/q. gastos</th>
<th>l/r. net?</th>
<th>m/s. horas</th>
<th>n. número</th>
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<td>2-en grupo</td>
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<td>g. a quién lo vendió</td>
<td>5-mercado local</td>
<td>6-mercado capital</td>
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<td>8-others</td>
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Ahora tengo unas preguntas sobre sus compras de abonos y fertilizantes en este año desde que empezó la lluvia. Me gustaría preguntarle de todas sus compras, incluyendo las compras que hizo individualmente y las compras que hizo en un grupo junto con otras personas.

29. Entonces, pensando en todas sus compras desde que empezó la lluvia en 1989, ¿Cuántas veces ha comprado Ud. abonos y fertilizantes hasta ahora?

30. Empezamos con la última compra que hizo Ud...
   a. ¿Cuál tipo o marca compró Ud.?
   b. ¿En qué fecha lo compró?
   c. ¿Cuánto compró? ¿Qué cantidad?
   d. (la unidad de medida para la compra)
   e. ¿A qué precio por (unidad) lo compró?
   f. ¿Cuánto pagó por todo de la compra?
   g. ¿En qué manera pagó, en...? READ CHOICES
   h. ¿A quién lo compró, a...? READ CHOICES
   i. ¿Qué es la distancia en kilómetros entre la finca y el vendedor?
   j. ¿Lo compró en individual o junto con un grupo?

IF IN GROUP:
   k. ¿Cuánto pagó Ud. al grupo para transporte, viáticos u otro gasto de la compra?
   l. ¿Es esto por todo o por (unidad)?
   m. Entonces, incluyendo lo que Ud. tuvo que pagar al grupo para los gastos y para el fertilizante, ¿cuánto pagó Ud. por todo?
   n. ¿Cuántos días o horas usó Ud. en reuniones para platicar sobre la compra y distribuirla?
   o. ¿Cuántos beneficiarios participaron en la compra?
   p. ¿Cuánto lo compraron entre todos de Uds.?

IF INDIVIDUALLY:
   q. ¿Cuánto pagó Ud. para transporte en todo?
   r. ¿Cuánto pagó en viajes para Ud. o miembros de su familia para hacer la compra? Por ejemplo, en pasajes, comidas en comedores u otros gastos del viaje...
   s. Entonces, incluyendo lo que Ud. tuvo que pagar para los gastos y para el fertilizante, ¿cuánto pagó Ud. por todo?
   t. ¿Cuántos días o horas usó Ud. en viajar o negociar para hacer la compra?

CHECK IF SUPPLEMENT USED ___
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<td>p. volumen</td>
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<tr>
<th>b. quincena</th>
<th>c. unidades</th>
<th>d. todo/unid.</th>
<th>g. manera pagar</th>
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<tr>
<td>1-weeks 1-2</td>
<td>1-quintales</td>
<td>1-todo/unid.</td>
<td>1-efectivo/pisto</td>
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<td>2-todo</td>
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<td>4-galones</td>
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<td>2-en grupo</td>
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<th>h. de quién lo compró</th>
<th>3-intermediario en el pueblo</th>
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<tbody>
<tr>
<td>1-importadores</td>
<td>4-agropecuario</td>
</tr>
<tr>
<td>2-intermediario en la finca</td>
<td>5-otro</td>
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Las pocas preguntas que ya tenemos son sobre algunas de las costumbres aquí en la finca.

31. Después de la cosecha de café, ¿recibieron todas las familias beneficiarias algún piso o crédito?
   1-sí
   2-no
   3-otro _____________________

a. IF YES: ¿Cuánto recibieron Uds.?  
   piso ________  crédito ________  
   otro _____________________

32. ¿Cada cuánto viene a su [parcela] [trabajadero] alguien para ver si los trabajos son hechos? (técnico, caporal, jefe, miembro de la directiva) ________

READ CHOICES: 1-nunca  
               2-una vez por mes  
               3-una vez por semana  
               4-diariamente

33. Si un beneficiario no tiene interés o se desanima; si hay mucho monte en su [parcela] [trabajadero]; si no colabora ni aporta bien, ¿creen Uds. que el [técnico] [asesor] o la junta directiva lo sacarían o expulsarían a ese beneficiario de la finca? ________

READ CHOICES: 1-sí  
               2-no  
               3-tal vez

IF "TAL VEZ":  
   a. ¿Creen Uds. que es más probable o menos probable que lo sacarían ese beneficiario? ________
      1-más  
      2-menos
34. ¿Piensan Uds. que estarán en esta finca por diez años más?
   1-sí
   2-no
   3-tal vez

IF "TAL VEZ":
   a. ¿Creen Uds. que es más probable o menos probable que estarán aquí en diez años?
      1-más
      2-menos

35. ¿Piensan Uds. que la directiva responde a los intereses de los beneficiarios o no responde a los beneficiarios?
   1-sí
   2-no
   3-a veces

36. ¿Viven Uds. y su familia mejor ahora que antes de venir a la finca?
   1-sí, mejor ahora
   2-no, mejor antes de venir
   3-casi lo mismo

37. De primer año que vinieron a la finca hasta ahora, ¿están mejor, peor o igual la vida en la finca?
   1-mejor ahora
   2-peor ahora
   3-igual
Estas son todas las preguntas que tengo yo! Les agradezco mucho por su ayuda!! ¿Quieren Uds. decirme algo más? ¿Tienen Uds. unas preguntas para mí?
ESTRICTAMENTE CONFIDENCIAL
PROYECTO DEL TESIS DOCTORAL
FACULTAD DE ECONOMIA AGRICOLA
UNIVERSIDAD DE WISCONSIN

ID # __________________________
Date: ________________
Start Time: ________
Finish Time: _________

HOUSEHOLD SURVEY: CORN
1. ¿Cuándo empezó Ud. a trabajar en esta finca como beneficiario?
   
   ID # __ __ __
   
   mes ____
   año ____

2. ¿Dónde vivieron Uds. antes de ser beneficiarios en esta finca?
   
   READ CHOICES: 1-aquí en la finca
                  2-aquí en el mismo municipio
                  3-mismo departamento
                  4-fuera del departamento

   a. IF OUTSIDE DEPARTMENT:
   
   ¿Estaba Ud. en ....? ______
   
   READ CHOICES: 1-la costa
                  2-el altiplano
                  3-el oriente
                  4-el norte
                  5-la capital
3. ¿Cuántos años ha cultivado Ud. el maíz? 

1-este año (1989) fue la primera vez
2-este año y el año pasado.
3-tres años, incluyendo este año
4-cuatro años, incluyendo este año
5-cinco años, incluyendo este año
6-más de cinco años

4. ¿Han recibido Uds. la escritura de [su parcela] [la finca]? 

1-sí
2-no

a. IF YES: ¿Cuándo recibieron la escritura? 

mes ___
año ___

5. ¿Cuál es la extensión de su [parcela] [trabajadero] aquí en la finca? 

extensión ___
unidades ___

1-manzanas 4- hectáreas
2-cuerdas 5-tareas
3-varas 6-otro _________
7-otro _________
6. a. ¿Qué lenguas habla Ud., señor?
   b. ¿Sólo el español (la castilla)?
   c. ¿Qué lenguas habla Ud., señora?
   d. ¿Sólo el español (la castilla)?

   MARK ALL THAT APPLY (NON-FLUENCY IN PARENTHESES)

   1-español, castilla
   2-______________________
   3-______________________
   4-______________________

7. Y ahora, tengo unas preguntas sobre Uds. y sus hijos. Empezamos con Uds. dos.

   a. ¿Cuántos años ha cumplido Ud.?
   b. ¿Qué grado de escuela ganó?

8. ¿Cuántos hijos tienen Uds. aquí en su casa?

   Empezamos con el mayor.
   a. OPTIONAL: ¿Cuál es su nombre?
   b. ¿Es varón o mujer?
   c. ¿Cuántos años ha cumplido (nombre)?
   d. ¿Está inscrito en la escuela?
   e. IF YES: ¿En qué grado está inscrito?
      IF NO: ¿Qué grado ganó?

   CAUTION: BE SURE TO STRESS CUMPLIDO FOR AGES!
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<thead>
<tr>
<th>NOMBRE (a)</th>
<th>SEXO (b)</th>
<th>EDAD (c)</th>
<th>INSCR (d)</th>
<th>GRADO (e)</th>
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<td>Señora</td>
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b. sexo
1-varón     e. grado
2-mujer     0-nunca asistió
            1-primero; programa de alfabetización
d. inscr
1-sí        2-6-segundo a sexto
2-no         7-más de primaria
            8-programa de castellanización

9. ¿Tienen Uds. hijos que tienen [parcela] [trabajadero] propia/o en la finca?
  1-sí
  2-no

a. IF YES: ¿Cuántas/os [parcelas] [trabajaderos] hay entre ellos?
10. Además de sus hijos, ¿tienen los dos de Uds. otros familiares que viven o trabajan aquí en la finca? Por ejemplo, ¿tienen Uds. **(READ LIST)** que viven o trabajan en la finca? **PROBE!!!**

**IF YES:**
- a. Señor, ¿cuántos (padres) tiene Ud. en la finca?
- b. Señora, ¿cuántos (padres) tiene Ud. en la finca?
- c. ¿Cuántos de esos viven en la misma casa con Uds.?
- d. ¿Cuántos de ellos tienen [parcela] [trabajador] propia/o?

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**d-casa** 2-no  
1-sí 3-a veces

**e.** Entonces, entre Uds. y todos sus parientes en la finca, hay [parcelas] [trabajadores].
Estas preguntas son sobre la siembra de maíz del año pasado en su [parcela] [trabajador] aquí en la finca. Quiero aprender algo de la última cosecha que Ud. ha tenido.

11. ¿Cuántas/os [parcelas] [trabajadores] sembró Ud. con maíz aquí en la finca?
   
   a. VERIFY IF MULTIPLE: ¿Todos esas/os [parcelas] [trabajadores] están aquí en la finca?
   
   b. ¿Es maíz de primera o maíz de segunda?
      1-primera
      2-segunda

12. ASK FOR EACH OF THE SUBPARCELS:
   
   a. ¿Cuándo sembró Ud. el maíz?
   b. ¿Cuándo empezó la cosecha? ¿cuándo terminó?
   c. ¿Qué extensión de tierra sembró en maíz?
   d. ¿Había otro cultivo sembrado en la misma tierra junto con el maíz?
   e. IF YES: ¿Qué cultivo o cultivos?

<table>
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<td>2-cuerdas</td>
<td>5-tareas</td>
<td>6-otro</td>
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13. Me gustaría preguntar de los insumos que Ud. usó en producir esta cosecha del maíz. Empezamos con semilla mejorada...

a. ¿Usó Ud. (insumo)?
b. ¿Cuáles tipos o marcas?
c. ¿Qué cantidad usó de cada tipo?
d. (¿Estos son quintales, libras, litros, galones o qué?)

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unidades:
1-quintales 3-litros 5-otro 7-otro
2-libras 4-galones 6-otro 8-otro

14. Ahora me gustaría preguntarle del trabajo en su [parcela] [trabajadero] con las personas que viven en su casa. Le voy a leer el nombre de alguien de su familia y una lista de tareas o actividades para ver que es lo que hace cada persona y que tan seguido lo hace. Todavía estamos hablando de la última vez que sembró maíz en su [parcela] [trabajadero] aquí en la finca. Empezamos con Ud., señor.
a. ¿Trabajó (Ud./nombre) en (descombrar)?
b. IF YES: ¿Cuántos días trabajó/usó en eso?
   REPEAT FOR EACH TASK THEN DO FAMILY (PAGES #4-#5).
c. ¿Ud. pagó jornales para (descombrar)?
   IF YES:
d. ¿Cuántos jornales pagó? ¿por cuántos días?

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<th>señora</th>
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DISCUSS CONFIDENTIALITY AND IMPORTANCE OF TRUE ANSWERS.

USE EXTRA ROWS ONLY IF HARVEST REPORTED BY SUBPARCEL.

15. Pasando ahora a su cosecha de maíz:

a. ¿Cuánto maíz produjo?
b. ¿Cuánto vendió?

ASK ONLY IF RESPONDENT HAS TROUBLE RECALLING a.:
c. ¿Cuánto almacenó para consumo en la casa?
d. ¿Cuánto guardó para semilla?
e. ¿Cuánto guardó para dar a animales?

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unidades: 1-quintal
2-arroba 4-otro________
3-libra 5-otro________
24. ¿Usó Ud. un tractor o algún tipo de maquinaria en este cultivo del maíz?
   1-sí
   2-no

IF YES:
a. ¿Cuántas veces usó maquinaria? ___

ASK FOR EACH TIME, BEGINNING WITH FIRST TIME:
b. ¿Qué tipo de maquinaria fue?
c. ¿Para qué tarea o actividad usó? (¿Cuál era el propósito?)
d. ¿Para cuánto tiempo usó (en horas)?

25. ¿Usó Ud. un vehículo o un caballo para acarrear adentro de la finca?

REPEAT b.-d. ABOVE

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26. ¿Usó Ud. yunta de bueyes en este cultivo del maíz?

IF YES:
a. ¿Cuántos días usó?
Estos son todas las preguntas que tengo sobre el cultivo de su [parcela] [trabajadero]. Ahora vamos a hablar de sus ventas de la cosecha. Pero, antes de empezar con esas preguntas, ¿quieren Uds. decirme algo sobre su cosecha... los insumos... el uso de mano de obra... u otra cosa de que hemos hablado?

COPY HARVEST BEGINNING DATES FROM PAGE #8, QUESTION #12b.

Bueno. Entonces, vamos a hablar sobre la venta de su cosecha. Todavía estamos hablando de su cosecha de maíz que empezó [Fecha].

Me gustaría preguntarle de todas sus ventas desde el principio de la cosecha, incluyendo las ventas que hizo individualmente y las ventas que hizo en un grupo junto con otras personas.
27. Entonces, pensando en todas sus ventas desde el principio de la cosecha, ¿Cuántas veces ha vendido Ud. el maíz hasta ahora?

28. Empezamos con la última venta que tuvo Ud...

a. ¿En qué fecha lo vendió?
b. ¿Cuánto maíz vendió Ud.?
c. (la unidad de medida para la venta)
d. ¿A que precio lo vendió?
e. ¿Cuánto recibió por todo de la venta?
f. ¿A quién lo vendió el maíz, a un...

g. ¿Qué es la distancia en kilómetros entre la finca y el comprador?
h. ¿Vendió en individual o junto con un grupo?

IF IN GROUP:

i. ¿Cuánto pagó Ud. al grupo para transporte, viáticos u otro gastos de la venta?
j. ¿Es esto por todo o por (unidad)?
k. Después de haber pagado todos los gastos, ¿cuánto dinero le quedó para Ud.?
l. ¿Cuántos días o horas usó Ud. en reuniones para platicar sobre la venta?
m. ¿Cuántos beneficiarios participaron en la venta?
n. ¿Cuánto maíz vendieron entre todos de Uds.?

IF INDIVIDUALLY:

o. ¿Cuánto pagó Ud. para transporte en todo?
p. ¿Cuánto pagó en viajes para Ud. o miembros de su familia para hacer la venta? Por ejemplo, en pasajes, comidas en comedores u otros gastos del viaje...

q. Después de haber pagado todos los gastos, ¿cuánto dinero le quedó para Ud.?
r. ¿Cuántos días o horas usó Ud. en viajar o negociar para hacer la venta?

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Ahora tengo unas preguntas sobre sus compras de abonos y fertilizantes en este año desde que empezó la lluvia. Me gustaría preguntarle de todas sus compras, incluyendo las compras que hizo individualmente y las compras que hizo en un grupo junto con otras personas.

29. Entonces, pensando en todas sus compras desde que empezó la lluvia en 1989, ¿Cuántas veces ha comprado Ud. abonos y fertilizantes hasta ahora? 

30. Empezamos con la última compra que hizo Ud...

   a. ¿Cuál tipo o marca compró Ud.? 
   b. ¿En qué fecha lo compró? 
   c. ¿Cuánto compró? ¿Qué cantidad? 
   d. (la unidad de medida para la compra) 
   e. ¿A qué precio por (unidad) lo compró? 
   f. ¿Cuánto pagó por todo de la compra? 
   g. ¿En qué manera pagó, en...? READ CHOICES 
   h. ¿A quién lo compró, a...? READ CHOICES 
   i. ¿Qué es la distancia en kilómetros entre la finca y el vendedor? 
   j. ¿Lo compró en individual o junto con un grupo? 

IF IN GROUP:
   k. ¿Cuánto pagó Ud. al grupo para transporte, viáticos u otro gastos de la compra? 
   l. ¿Es esto por todo o por (unidad)? 
   m. Entonces, incluyendo lo que Ud. tuvo que pagar al grupo para los gastos y para el fertilizante, ¿cuánto pagó Ud. por todo? 
   n. ¿Cuántos días o horas usó Ud. en reuniones para platicar sobre la compra y distribuirla? 
   o. ¿Cuántos beneficiarios participaron en la compra? 
   p. ¿Cuánto lo compraron entre todos de Uds.? 

IF INDIVIDUALLY:
   q. ¿Cuánto pagó Ud. para transporte en todo? 
   r. ¿Cuánto pagó en viajes para Ud. o miembros de su familia para hacer la compra? Por ejemplo, en pasajes, comidas en comedores u otros gastos del viaje... 
   s. Entonces, incluyendo lo que Ud. tuvo que pagar para los gastos y para el fertilizante, ¿cuánto pagó Ud. por todo? 
   t. ¿Cuántos días o horas usó Ud. en viajar o negociar para hacer la compra?

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| j. individuo          |              |              |              |              |
| 2-en grupo             |              |              |              |              |
| h. de quién lo compró  |              |              |              |              |
| 1-importador           |              |              |              |              |
| 2-intermediario en la finca |          |              |              |              |
Las pocas preguntas que ya tenemos son sobre algunas de las costumbres aquí en la finca.

31. Después de la cosecha de maíz, ¿recibieron todas las familias beneficiarias algún pisto o crédito?
   1-sí
   2-no
   3-otro

   a. IF YES: ¿Cuánto recibieron Uds.?  
      pisto ____  
      otro ____  
      crédito ____

32. ¿Cada cuánto viene a su [parcela] [trabajadero] alguien para ver si los trabajos son hechos? (técnico, caporal, jefe, miembro de la directiva)
   READ CHOICES:  
   1-nunca
   2-una vez por mes
   3-una vez por semana
   4-diariamente

33. Si un beneficiario no tiene interés o se desanima; si hay mucho monte en su [parcela] [trabajadero]; si no colabora ni aporta bien, ¿creen Uds. que el [técnico] [asesor] o la junta directiva lo sacarían o expulsarían a ese beneficiario de la finca?
   READ CHOICES:  
   1-sí
   2-no
   3-tal vez

   IF "TAL VEZ":  
   a. ¿Creen Uds. que es más probable o menos probable que lo sacarían ese beneficiario?
      1-más
      2-menos
34. ¿Piensan Uds. que estarán en esta finca por diez años más?
   1-sí
   2-no
   3-tal vez

IF "TAL VEZ":
   a. ¿Creen Uds. que es más probable o menos probable que estarán aquí en diez años?
      1-más
      2-menos

35. ¿Piensan Uds. que la directiva responde a los intereses de los beneficiarios o no responde a los beneficiarios?
   1-sí
   2-no
   3-a veces

36. ¿Viven Uds. y su familia mejor ahora que antes de venir a la finca?
   1-sí, mejor ahora
   2-no, mejor antes de venir
   3-casi lo mismo

37. De primer año que vinieron a la finca hasta ahora, ¿están mejor, peor o igual la vida en la finca?
   1-mejor ahora
   2-peor ahora
   3-igual
Estas son todas las preguntas que tengo yo! Les agradezco mucho por su ayuda!! ¿Quieren Uds. decirme algo más? ¿Tienen Uds. unas preguntas para mí?
ENDNOTES

1. The Gini coefficient is a measure of inequality that can be applied to landownership, income distribution, market concentration, and so forth. For landownership, it is calculated based on the percentage of land held in categories of farms by farm size. The coefficient ranges from zero, representing complete equality, to one, representing complete inequality.

2. At least 10 of the farms match this description.

3. A copy of the design phase questionnaire is attached to this report as appendix A.

4. Copies of each of the three questionnaires are attached to this report as appendix B.

5. Beneficiary lists were kindly provided by FUNDACEN and INTA through the cooperation of their field personnel. The group at Chuachilil provided their own list.

6. See de la Cadena and Strochlic (1991) and Dunn (1991) for further discussion of the theoretical and empirical importance of beneficiary characteristics.

7. Ladino is a cultural term used to refer to a Guatemalan who uses Western-style clothing and customs and does not routinely speak an indigenous language in the home.

8. The male and female members of a conjugal pair are referred to as the male head of household and the female head of household. These terms are also used to refer to single parents and to members of nonconjugal couples in which there is an adult male and an adult female with well-defined management responsibilities (for example, a widowed or divorced woman and her grown son).

9. The average number of dependents for a beneficiary couple on the FUNDACEN farms surveyed is 3.8.

10. Chemicals used during the 1989 growing season included the following: Temik, Mocap, Folidor, Counter, Malathion, Lebaycid, Tiodan, Volaton, Tamaran, Aldrin, Lannate, Semivid, Formonox, Lorsban, Mytasystox, Latigo, Gramaxone, Hedonal, Round-up, Gersaprin, Gramuron, 2-4-D Anima, Paraquat, Furaran, Cobre, Difolatan, Ferban, and Miolata. Also, various fertilizers and seeds were used.

11. Of the farms mentioned in this report, Patzunuy, Popabaj, Panimaquin, Choaquec, and El Sucum are primarily devoted to the cultivation of export vegetables such as broccoli,
cauliflower, snow peas, and cabbage. All of the farms are located in the western mountains, where there are favorable conditions for growing these types of vegetables.

12. Data to test this assertion were collected during the survey and are scheduled to be analyzed in late 1991.

13. For a more detailed description of the situation on Sam Greene during the 1989 harvest, see the report submitted 17 April 1990, entitled "Preliminary Field Report: Pressing Issues on FUNDACEN Fincas."
GLOSSARY OF ACRONYMS AND SPANISH TERMS

aldea  municipal unit, equivalent to a small town in the United States
BANDESA  national agricultural development bank of Guatemala
beneficio  wet processing facility for coffee
campesino  low-income person associated with agriculture
colonia  housing area, neighborhood
DIGESA  agricultural extension service of Guatemala
dueño  owner
FLACSO  Facultad Latinoamericano de Ciencias Sociales (Latin American Social Sciences College)
FUNDACEN  Fundación del Centavo (The Penny Foundation), a nonprofit Guatemalan development agency
huerta  house plot
INTA  Instituto Nacional de Transformación Agraria (National Agrarian Transformation Institute)
jefe  boss, foreman
jornal  wage for one day’s work
junta directiva  leadership, board of directors
lámina  corrugated metal building material
manzana  unit of land area, equivalent to .7031 hectare
milpa  plot of land cultivated in corn
<table>
<thead>
<tr>
<th>Word</th>
<th>Definition</th>
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<tbody>
<tr>
<td>municipio</td>
<td>municipal unit, equivalent to a county in the United States</td>
</tr>
<tr>
<td>NGO</td>
<td>non-governmental organization</td>
</tr>
<tr>
<td>patrón</td>
<td>patron, master, landlord</td>
</tr>
<tr>
<td>personería jurídica</td>
<td>legal identity</td>
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<tr>
<td>primer ensayo</td>
<td>initial harvest of a coffee tree</td>
</tr>
<tr>
<td>rancho</td>
<td>hut, shack</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>útiles</td>
<td>school supplies (paper, pencils)</td>
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BIBLIOGRAPHY


