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UNCLASSIFIED

UNITED STATES INTERNATIONAL DEVELOPMENT COOPERATION AGENCY
AGENCY FOR INTERNATIONAL DEVELOPMENT
Washington, D. C. 20523

GUATEMALA

PROJECT PAPER

COMMERCIAL LAND MARKETS II

AID/LAC/P-400

Project Number: 520-0343

UNCLASSIFIED

AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT DATA SHEET	1. TRANSACTION CODE <input checked="" type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete	DOCUMENT CODE 3
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2. COUNTRY/ENTITY Guatemala	3. PROJECT NUMBER 520-0343
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4. BUREAU/OFFICE LAC	5. PROJECT TITLE (maximum 40 characters) COMMERCIAL LAND MARKETS II
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6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 08 30 92	7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4) A. Initial FY 87 B. Quarter 4 C. Final FY 88
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8. COSTS (\$000 OR EQUIVALENT \$1 =)						
A. FUNDING SOURCE	FIRST FY 87			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	(665)	(6,800)	(7,465)	(1,281)	(9,219)	(10,500)
(Loan)	()	()	()	()	()	()
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s)						
TOTALS	665	6,800	7,465	1,281	9,219	10,500

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) FN	230	250		2,000		8,500		10,500	
(2)									
(3)									
(4)									
TOTALS				2,000		8,500		10,500	

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each) 240	11. SECONDARY PURPOSE CODE 200
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12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each) A. Code B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To establish and expand the Penny Foundation's voluntary land purchase/sale program as a self-supporting activity capable of increasing agricultural productivity and incomes of the rural poor, and to identify and promote additional instruments to increase production and reduce pressure on agricultural land.

14. SCHEDULED EVALUATIONS Interim MM YY MM YY Final MM YY 12 88 12 89 08 92	15. SOURCE/ORIGIN OF GOODS AND SERVICES <input checked="" type="checkbox"/> 000 <input type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify) CACM
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16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a _____ page PP Amendment.)
 Commercial Land Markets II was originally obligated with a grant of \$1 million in 1985, followed by another \$1 million in 1986. This is a Project Paper for an expanded effort incorporating the prior obligations of \$2 million. No previous Project Paper was prepared.
 I have reviewed the methods of implementation and financing of this project and certify that they are in agreement with Payment Verification Policy Implementation Guidance provided in J.M. R.S. Rollis, Jr. memorandum of December 30, 1983.

17. APPROVED BY	Signature: Anthony J. Calderucci Title: Director, USAID/Guatemala	Date Signed: 07 31 87	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W COMMENTS, DATE OF DISTRIBUTION: MM DD YY
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Project Authorization Amendment No. 2

Name of Country/Entity: Guatemala/Fundación del Centavo (Penny Foundation)

Name of Program: Commercial Land Markets/Phase II

Number of Program: 520-0343

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, the Commercial Land Markets Project/Phase II was authorized on August 30, 1985 (the "Project Authorization"). The Project Authorization was amended on July 18, 1986 to increase grant funding. The Project Authorization is hereby amended for the second time by deleting in their entirety Sections 1, 2, 3, and 5 of the Project Authorization as amended and substituting in lieu thereof the following:

1. Pursuant to Section 103 of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Commercial Land Market Project/Phase II for the "Fundación del Centavo," involving planned obligations of not to exceed \$10,000,000 in grant funds over a seven year period from date of authorization, subject to the availability of funds in accordance with the AID OYB/allotment process, to help in financing foreign exchange and local currency costs for the project. The planned life of the Project is seven (7) years from the date of the initial obligation.
2. The Project consists of assistance to establish the Penny Foundation's land purchase activities as a self-supporting program capable of increasing agricultural productivity and incomes of the rural poor; and to identify and promote land-related activities capable of increasing agricultural production and reducing pressure on Guatemala's farm land.
3. The Project Agreement, which may be negotiated and executed by the officer(s) to whom such authority is delegated in accordance with AID regulations and Delegations of Authority, shall be subject to the following essential terms and major conditions, together with such other terms and conditions as AID may deem appropriate.

2. Except as expressly modified or amended hereby, the Project Authorization remains in full force and effect.

Anthony J. Cauterucci FOR
Anthony J. Cauterucci
Director
USAID/Guatemala

DATE: 7/31/87

Drafted: Action RLA, MKRiedy 1/21/87

Clearances:

ORD:HWing	<u>HWing</u>	Date:	<u>7/31/87</u>
PDSO:CHSchoux	<u>CHSchoux</u>	Date:	<u>July 30, 1987</u>
PRM:TKellerman	<u>TKellerman</u>	Date:	<u>7/31/87</u>
CONT:JHill, Jr.	<u>JHill</u>	Date:	<u>7/31/87</u>
DD:PEWhite	<u>PEWhite</u>	Date:	<u>7/31/87</u>
OEPA:Mott	<u>Mott</u>	Date:	<u>7/31/87</u>

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ACTION MEMORANDUM FOR THE DIRECTOR

THROUGH: Paul E. White, Deputy Director July 30, 1987
FROM : Christina Schoux, Chief, PDSO *Christina H. Schoux*
SUBJECT: Commercial Land Markets II Project (520-0343):
Request for Approval of Project Paper Amendment and
Project Authorization Amendment No. 2.

Problem: Your approval is requested to (a) approve the Project Paper for Commercial Land Markets II, and (b) amend the Project Authorization to increase grant funding by \$8.5 million (from Section 102 funds) to a new life of project total of \$10.5 million and to establish a Project Assistance Completion Date of August 30, 1992.

Background: To address the twin problems in Guatemala of a high degree of land concentration and a burgeoning population of rural landless and land poor, USAID in 1984 signed a \$1 million Operational Program Grant (Project 520-0330) with the Penny Foundation, a Guatemalan PVO, to implement a voluntary land purchase/sale program. This pilot effort established a private sector mechanism which enables small farmers to purchase land (average of 2.8 hectares per family) and provides them with production credit and technical assistance to assure maximum return on the land. The program converts underutilized land into higher production units, while at the same time increasing the living standards of the poor participating in the project. Because of the project's initial success, additional funds were added in FYs 1985 and 1986 under Project 520-0343 to support a second phase of the program.

Twenty farms (est. 4,000 hectares) have been purchased to date by the Penny Foundation and resold to 625 landless or land-poor families with 400 more in the process of purchasing land. Project targets for land purchase and resale to farmers have been exceeded. With Penny Foundation assistance, purchased land has been converted to export vegetables, pineapple, newly planted coffee, cacao and fruit; income from the parcels has consistently exceeded income generated by the land prior to sale and subdivision.

THE PROPOSED PROJECT AMENDMENT:

1. Project Description

The Amendment to the Commercial Land Markets II Project (520-0343) authorizes a grant for the Fundación del Centavo (Penny Foundation) for an additional \$8.5 million for five years to establish and expand the Penny Foundation's voluntary land purchase/sale program as a self-supporting activity capable of increasing agricultural productivity and incomes of the rural poor, and to identify and promote additional instruments to increase production and reduce pressure on agricultural land.

The increase in funding will expand the land purchase/sale program to 10,000 hectares, continue an effective program of technical assistance and production credit, and strengthen the management and technical capacity of the Penny Foundation to meet the needs of an expanded program. Funds will also be provided for research to identify ways to expedite land titling, identify private institutions to provide longer-term financing for small and medium farm purchases, identify other organizations capable of complementing the efforts of the Penny Foundation, and examine policy issues resulting from land-related problems.

The grant will be administered through a Cooperative Agreement with the Penny Foundation. \$7.15 million will be used by the Foundation for the land purchase/sale program including \$1.62 million for land purchase, \$3.89 million for production and investment credit, \$442,000 for agricultural technical assistance, and \$933,000 for administration. \$100,000 will be available for technical assistance for the Penny Foundation, and \$600,000 has been allocated for a USAID project liaison officer. \$750,000 will be contracted by USAID for evaluation and research to monitor and document the Penny Foundation program and to identify and develop alternative organizations and mechanisms for additional land market activities.

The Project Paper was reviewed and approved on June 23, 1987, by the USAID Executive Project Review Committee with participation by a representative of LAC/DR/RD (AID/Washington).

The revisions required by the Review Committee were: (1) to create a fund for institutional technical assistance to be provided to the Foundation for organizational and financial management; (2) to include a covenant indicating a good faith effort by the Penny Foundation to raise funds locally and increase membership; (3) to create a reserve allowance for doubtful accounts; (4) to accelerate the baseline survey,

institute annual evaluations of the project, and to emphasize that evaluation is an on-going process; (5) to assure that the land purchase/sale program will be included in the Foundation's annual external audit; and, (6) to indicate that alternative credit resources will be examined in the context of USAID's agricultural credit study with the objective of freeing up Penny Foundation resources for additional land purchases. These changes have been incorporated into the attached Project Paper.

With these revisions, the proposed project extension is determined to be feasible on technical, economic, institutional, financial, socio-cultural, and environmental grounds.

2. Beneficiaries

Approximately 2,700 families, comprising landless farm laborers and subsistence farmers with inefficiently small and marginally productive plots, are expected to benefit from the project.

3. Waivers

No waivers are required by the Project Paper Amendment.

4. Congressional Notification and Availability of Funds

A Congressional Notification for the proposed amendment was sent to the Hill on July 15, 1987 (State 226999); the statutory waiting period expires on July 30, 1987. We expect the remainder of the FY 1987 budget allowance for the project on July 31.

5. Financial and Compliance Review

RIG/Honduras staff are preparing a scope of work for the financial and compliance review of the Penny Foundation. This review, required of all recipients of Handbook 13 grants and cooperative agreements, will be undertaken by a local office of a U.S.-affiliated accounting firm within six months from the date the Cooperative Agreement is signed.

6. Approval of AA/LAC to Enter into a Cooperative Agreement without Competition

USAID requested this approval from AA/LAC on July 17, 1987 (Guatemala 07496).

7. Authorities:

Per Delegation of Authority No. 753, you may amend a project authorization provided that the LOP funding does not exceed \$30 million. Per the RLA, this project, when obligated under an OPG, did not have a formal PACD although an OPG termination date of August 30, 1988, is provided for in the OPG. The Project Paper establishes a PACD of August 30, 1992, or a seven-year life of project which is within your authority to approve.

8. Recommendations

(a) That you approve the Project Paper by signing the attached PP Facesheet; (b) that you approve the Project Amendment to add \$8.5 million in grant funds over FYs 1987 and 1988 and establish a formal PACD of August 30, 1992, by signing below; and (c) that you authorize the amended project by signing the attached project Paper Authorization Amendment No. 2.

Approve: RE White FOR

Disapprove: _____

Date: 7/31/87

Attachments: Project Paper
Project Authorization Amendment No. 2

Drafted: C/PDSO: ^{CHS}CHSChoux

Clearances:

ORD: HWing	<u>HWing</u>	Date: <u>7/31/87</u>
PRM: TKellermann	<u>TKellermann</u>	Date: _____
CONT: JOhill	<u>JOhill</u>	Date: <u>7/31/87</u>
OEPA: MKott	<u>MCott</u>	Date: <u>7/31/87</u>

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PROJECT PAPER
COMMERCIAL LAND MARKETS II

TABLE OF CONTENTS

	Page
I. SUMMARY AND RECOMMENDATIONS	
A. Recommendation	1
B. Project Summary	1
C. Summary Findings	2
D. Project Issues	2
II. PROJECT BACKGROUND AND RATIONALE	4
A. Economic Overview	4
B. Strategy	5
1. AID Program Strategy	5
2. USAID Project Strategy	7
3. Government of Guatemala Strategy	11
4. Other Donor Projects	12
III. PROJECT DESCRIPTION	12
A. Project Goal and Purpose	12
B. Project Components	13
1. Penny Foundation	13
a. Land Purchase/Sale	13
b. Farm Management	16
c. Production Credit	18
d. Administration and Management	19
2. Research	22
a. Penny Foundation Study	22
b. General Property Registry Study	24
c. External Financing Study	24
d. Alternative Land Market Programs	25
C. Summary Budget and Financial Plan	26
IV. PROJECT ANALYSES	29
A. Institutional Analysis	29
B. Financial and Economic Analysis	31
C. Technical Analysis	33
D. Social Soundness Analysis	39
V. IMPLEMENTATION ARRANGEMENTS	43
A. Administrative Arrangements	43
B. Implementation Plan	43
C. Disbursement Procedures	44
D. Procurement Plan	45

E.	Monitoring and Evaluation Plan	45
F.	Conditions, Covenants and Negotiating Status	47
	1. Conditions Precedent	47
	2. Covenants	47
	3. Negotiating Status	48

ANNEX I. STANDARD ANNEX

- EXHIBIT A. Statutory Checklist
- EXHIBIT B. Grant Request
- EXHIBIT C. Draft Project Authorization

ANNEX II. TECHNICAL ATTACHMENTS

- EXHIBIT A. Logical Framework
- EXHIBIT B. Financial Plan
- EXHIBIT C. Evaluation's Summary and Recommendations
- EXHIBIT D. Initial Environmental Examination
- EXHIBIT E. Institutional Analysis
- EXHIBIT F. Financial and Economic Analysis
- EXHIBIT G. Social Soundness Analysis
- EXHIBIT H. Research Program
- EXHIBIT I. Technical Analysis

ANNEX III. FILE ATTACHMENTS

- Evaluation of Commercial Land Market Project
- Expanding the Penny Foundation Land Purchase Project: An Economic Assessment
- Information System Analysis of the Penny Foundation
- Commercial Land Markets Cash Flow Notes
- Commercial Land Purchase Project: A Social Soundness Analysis
- The Commercial Land Markets Project: Organization and Institutional Analysis.

I. SUMMARY AND RECOMMENDATIONS

A. Recommendation

The Commercial Land Market Project Design Committee recommends authorization of an additional grant of \$8,500,000 to the Penny Foundation to supplement the original Project grant of \$2,000,000 and a four-year extension of the Project to August 31, 1992. The Penny Foundation will contribute \$3,500,000 over the life of the Project as its required counterpart contribution.

B. Project Summary

Since 1978, Guatemala's economy has been caught in a serious decline. During the first half of the 1980's, real per capita income was reduced by 16.5 percent. Underemployment in Guatemala is a pervasive problem. Guatemala's negative growth has been extremely difficult on the rural poor. In 1985, 83 percent of the rural population was living in rural poverty.

The major structural characteristic of Guatemala's economy is its dependence on agriculture; it supplies domestic food consumption, provides employment and accounts for the majority of export earnings. The manufacturing sector is also dominated by agriculture related industries.

USAID is assisting the Government of Guatemala (GOG) to reverse its negative economic growth by improving the overall macroeconomic environment and resolving specific sector constraints impeding maximum growth and productivity. USAID/Guatemala has encouraged the GOG to adopt policy reforms deemed necessary to reverse the downward economic trend. Agriculture has demonstrated more consistent output performance during the recession than other key sectors of the economy. Because of the pressing need to reverse the general economic decline, the principal agricultural objective is to increase the cumulative value of agricultural production.

Land concentration in Guatemala has resulted in the underutilization of large expanses of land. The Commercial Land Markets Project has supported a non-profit foundation, the Penny Foundation, which buys underutilized land and sells it to rural poor. The process has increased agriculture production and will increase the incomes of the rural poor participating in the Project. The Commercial Land Markets Project (520-0343) was funded with a grant of \$1 million in 1985, followed by another \$1 million in 1986. An additional grant of \$8.5 million is proposed to expand the Foundation's land purchase program and make it self supporting. However successful, the Foundation in and of itself, even with an expanded program, will not resolve production and income problems resulting from land concentration. For this reason, the Project will provide financing to investigate alternative ways to resolve land-related production and income problems.

C. Summary Findings

The Project Review Committee has reviewed all aspects of the proposed \$8.5 million amendment to the Commercial Land Markets II Project and finds that it is financially, economically, technically, environmentally, and socially sound, and consistent with the development objectives of the Penny Foundation, the Government of Guatemala and USAID. The Project Review Committee has further determined that the Penny Foundation is institutionally capable of administering the Project as designed and explained in the Project Paper.

D. Project Issues

An AID/Washington guidance cable and a LAC/DR/RD memorandum identified some issues to be considered during the preparation of the Project Paper. These issues are listed in this section along with a brief response and/or indication of where in the Project Paper the issues are addressed.

Mechanism to avoid speculators: The Penny Foundation sells parcels to the beneficiaries with a first right of refusal should the beneficiary decide to sell. The beneficiaries can sell their land to anyone after offering it to the Penny Foundation. Establishing a predetermined sale price or basis for sale price is not permitted by Guatemalan law. Also, one to two years of hard work on communal projects discourages those wishing to profit from quick land appreciation.

Availability of cultivable land: Sufficient land availability was identified as early as 1984 in an A.I.D.-financed report. The Penny Foundation experience during the last three years has confirmed the finding (see Section II.B.2 and ANNEX II/I).

Methods of locating sellers: The Penny Foundation locates sellers several ways (see II.B.1.a. and two File Attachment reports: Evaluation of Commercial Land Markets Project; and Organization and Institutional Analysis).

Land purchase/sale terms: Description of land purchase/sale terms and pricing procedures is found in Sections III.B.1.a., ANNEX II/F and ANNEX II/I.

Financial Analysis of beneficiaries: A discussion of the capability of the beneficiaries to meet the down payment and the Penny Foundation's down payment policy is located in the Financial Analysis (ANNEX II/F) and two File Attachment reports: A Social Soundness Analysis and Evaluation of Commercial Land Markets Project.

Means of dealing with delinquencies or defaults: The Penny Foundation will foreclose on any beneficiary defaulting on a loan. The amount beneficiaries owe to the Penny Foundation is secured by the land, and it has the legal capability to foreclose. The independent auditors have estimated the doubtful accounts reserve for the Foundation's Land Purchase Program to be zero.

Steps the Mission will pursue in developing a mortgage and/or other bond mechanism to access financial markets: Development of long-term land financing in Guatemala is a constraint to more small and medium scale land programs. Mortgage or other types of bonds may or may not be the solution. The Research Component of the Project allocates funds for studies to identify potential land-financing mechanisms and evaluate the potential for a land bank (see III.B.2. and ANNEX II/H).

Mission expectations for the eventual alleviation of land pressure: The social and economic pressures resulting from landlessness in rural areas emphasize the need for more than just Penny Foundation and GOG involvement in the land programs. The Research Component of the Project addresses the broader problem (see II.E.2. and ANNEX II/H).

Identify the role of GOG, USAID and other donors: A description of GOG land programs is in the GOG Strategy section and the Technical Analysis (ANNEX II/I). USAID's role is the subject of this Project Paper. The role for other donors has yet to be defined. The Research Component of the Project should result in the identification of organizations, policies and projects for other donor assistance.

Penny Foundation institutional capacity to absorb additional funding: See the Institutional Analysis (Section IV.A) and the Financial Analysis (ANNEX II/F).

Financial analysis of land financing fund and its sustainability: The Project is designed to make the land purchase program self-supporting. This is described throughout the paper. Key to the sustainability is the monitoring of debt. Losses from unpredictable climate or market conditions increase the Foundation's debt ratio and reduces its annual land purchases (see ANNEX II/F and ANNEX II/I).

Social costs and benefits of channelling funds through the Penny Foundation: This is described in the Social Soundness Analysis (ANNEX II.G.).

Potential for false expectations: The Penny Foundation land purchase program is not likely to fuel rumors that lead to false expectations. It is not an easy, rapid and dramatic solution to a landless farm worker's problems. The program requires hard work. The benefits are not quickly apparent, since it may be years before the beneficiaries begin to demonstrate the advantages. The program also has the advantage of springing up in different parts of the country wherever a good farm can be acquired, rather than concentrating in one area. This means that the program has a rather low profile, and the number of beneficiaries in any one area is small.

Need to program resources to support continued policy dialogue on group vs. individual title: The Research Component of the Project will keep USAID and the GOG in close contact on a wide range of land issues. Group versus individual titles will be included if important at the time.

Advisability of Mission assistance in modernizing land registry:
The Project will analyze the feasibility and method for reform of the land registry. Modernization will not be done under this project. Modernization, to include computerization and other institutional strengthening activities, may be financed under the aegis of a separate project possibly funded with ESF or PL-480 local currency.

Beneficiary payment of farm support costs: The Foundation expects the beneficiaries to pay for the farm support costs as soon as their farm incomes can support it.

II. PROJECT BACKGROUND AND RATIONALE

A. Economic Overview

During most of the 1960's and 1970's, Guatemala experienced high economic growth, posting a 7.8 percent real growth rate in 1977. Since then, however, the nation has been caught in a serious economic decline resulting from such factors as the world oil price hikes of the 1970's, the stagnation of the Central American Common Market (CACM), the generally low world prices paid for Guatemala's exports, and the paralyzing effects of a major insurgency experienced in the early 1980's. The deteriorating economic situation has been exacerbated and prolonged by the failure of prior Guatemala administrations to respond to changing economic forces with appropriate macroeconomic policy adjustments. During the first half of the 1980's, real per capita income was reduced by 16.5 percent, although recent economic data show a slowing in the rate of deterioration. Real Gross Domestic Product (GDP) declined 1.0 percent in 1985.

Guatemala's modern economic record indicates its problem to be inconsistent growth with few or no measurable benefits to the poor when it does have real economic growth. This can be measured in terms of unemployment and underemployment, although reliable data on unemployment and underemployment are not readily available in Guatemala. Nonetheless, by using census data of 1970, ^{1/} it is possible to compute the percentage of open unemployment and the percentage of those working less than 40 hours weekly and earning less than the minimum wage, which are two acceptable measures for underemployment.

Although the number of those unemployed in Guatemala is not large, just 1.5 percent of the work force in rural areas and 3.3 percent in urban areas, the extent of underemployment is staggering. Including those who work less than 40 hours weekly and those who work 40 hours or more weekly but earn less than minimum wage, the pool of underemployed is 41 percent in the urban areas and 50 percent in the rural areas. With the general economic decline that began in 1978, the situation has undoubtedly grown worse.

^{1/} Census data of 1981 is unreliable. Census takers refused to cover many portions of Guatemala because of civil strife.

Guatemala has the most skewed income distribution in Central America. Income distribution data for 1970 show that in Guatemala the bottom 50 percent of the population earned the smallest share (13 percent) and the top five percent earned the greatest share (35 percent) of total National Income. Even when Guatemala experienced healthy growth rates, the benefits did not reach the majority of the population. Assuming the 1970 patterns of income distribution still hold, the 1985 per capita income for the bottom 50 percent of the population would be \$314. The national per capita income for 1985 was just \$1208.

The major structural characteristic of Guatemala's economy is its dependence on agriculture. It is largely a rural country with agriculture and agriculture-related economic activity supplying domestic food consumption, providing employment, and accounting for the majority of export earnings. According to the latest data, about 60 percent of the work force is engaged in agriculture. Agriculture accounts for about two-thirds of all exports with three crops (coffee, cotton, and bananas) responsible for about 50 percent. Agriculture contributed about 25 percent to GDP between 1981 and 1985.

The manufacturing sector is also dominated by agriculture related industries. The foodstuff industry accounts for almost one-half of real value added in the sector. Other industries related to agriculture which contribute to the manufacturing sector are rubber, wood, and wood products. For a brief period the importance of manufacturing and the food industry appeared to be growing. Under the stimulus of the CACM, manufacturing grew from 12.8 percent of GDP in 1960 to 16 percent in 1970. Since 1970, however, import substitution stalled, and manufacturing's participation in GDP stood in 1985 where it had in 1970, at about 16 percent.

B. Strategy

1. AID Program Strategy

AID's strategy to assist the Government of Guatemala (GOG) reverse its negative economic growth and concomitant employment problem is to establish an overall macroeconomic environment conducive to economic growth, while resolving specific sector constraints impeding maximum growth and productivity. The strategy incorporates the participation of the poor in the benefits of growth by upgrading the labor skills of the disadvantaged and increasing the productive capacity of their land and/or capital.

As indicated in previous USAID Action Plans, Guatemala's military governments responded to a deteriorating economic environment with counterproductive policies. The policies included borrowing to support an overvalued exchange rate, a system of multiple exchange rates, an inefficient tax system, price controls on consumer and wholesale commodities, interest rate ceilings, and internal financing of the fiscal deficit.

One of the first actions of the newly elected government was to formulate and implement a "stabilization plan" (see GOG Strategy) thus fulfilling a commitment to adopt sound economic policy management practices to address the economic crisis. USAID/Guatemala has supported the GOG and its policy reform strategy and is encouraging additional changes which are expected to reverse the downward GDP trend and achieve modest increases in real GDP by 1989. The specific stabilization policies at the forefront of the Mission's program are full unification of the exchange rate in early FY 1988, fiscal reform and improvements in tax administration to meet revenue targets, and further liberalization and flexibility of credit policies. Through ESF, PL 480 Title I and Section 416 funding, and a Development Assistance program, reductions are executed in the following: in the consolidated public sector deficit, central government deficit, Central Bank losses, public enterprise deficits, current account negative balance, and consumer price index. The policy focus of the Mission's strategy is expected to contribute to real GDP growth of 3.5 percent by 1989.

The economic recession experienced by the Guatemalan economy since 1980 has led to a renewed interest in the agricultural sector as an engine of growth. In 1980, the Guatemalan economy began contracting, and by 1985, real GDP was 5.8 percent less than in 1980, but during the same period, real agricultural GDP was only 2.8 percent less. Thus in the midst of the drastic economic downturn, the agricultural sector demonstrated more consistent output performance than the other key sectors (manufacturing, transportation, storage, and communications).

Agriculture has always been important in the Mission's development strategy. Now seen as an engine of growth, it becomes even more so. Because of the pressing need to reverse the economic decline in Guatemala, the principal agriculture program objective is to increase the cumulative value of agricultural production, which will be achieved through agricultural diversification (especially fruits and vegetables), research, credit, marketing, improved land use, improved input delivery through cooperatives, and infrastructural improvements such as small-scale irrigation, soil terracing, agro-processing and rural access roads. Given the vulnerability of Guatemala's economy to international price fluctuations in a few key crops, USAID projects emphasize increasing production in non-traditional crops when prudent to do so.

Because of the labor-intensive nature of USAID project-promoted agricultural production, this strategy is well suited to assuring the participation of the unemployed and underemployed in economic growth. Estimates from diversification projects indicate that by the end of 1986 small farmer incomes doubled for 4,000 producer families moving from traditional basic grain production to non-traditional crops. Similar increases are projected for an additional 9,000 families by the end of 1989. This sustainable increased income and employment among rural poor families in the Altiplano is extremely important, given high levels of malnutrition and poverty which exist there.

2. USAID Project Strategy

A USAID/Guatemala agricultural strategy concentrating on increased production must also address land problems. Research in developing countries has clearly demonstrated that, except for a few crops such as sugar cane, small-and medium-sized farms are the most resource efficient and productive per unit of land. Other research indicates that farming land in family-sized units has a positive effect on aggregate output. In general, very small farms and very large farms are not as productive as medium-sized farms. Obviously numerous factors affect productivity, but overall those farms which fully utilize family labor are the most efficient.

Yet Guatemala's farms are heavily biased toward the very small and very large sizes. About 54 percent of all farms, containing perhaps 80 percent of the rural population, consist of plots of 1.4 hectares or less. This is generally considered too small to generate enough subsistence crops and cash for the basic needs of a rural family without off-farm employment. At the other extreme, large farms of 450 hectares or more contain 34 percent of the land. Large farms often are found in the more fertile areas of the country. Many are not fully utilized, resulting in substantial expanses being abandoned, uncultivated or undergrazed. A 1982 USAID study estimated that over 1.2 million hectares of land in large farms were underutilized.

Many Guatemalan governments have initiated land reform, land settlement and colonization programs to raise agricultural production along with employment and rural incomes. Unfortunately, the results have ranged from controversial to financially and environmentally questionable. Furthermore, they have had little impact on resolving economic problems of the rural poor.

The Arbenz government carried out land reform in 1952 and 1953 through expropriation of idle, rented and sharecropped land. This policy of expropriation suffered from progressive political radicalization and a volatile proliferation of land disputes. It ended with a coup. Colonization projects have proven very expensive and have generally transferred highland communities to fragile, tropical frontier environments. Such projects are too difficult to implement, too costly, and too slow to have the needed impact.

The failure of prior programs has left land concentration as an obstacle to growth with equity. In 1985, 83 percent of the rural population was classified as living in poverty. Of that percentage, 41 percent could not afford a minimum diet. The rural landless and near-landless population is estimated at around 400,000 families and growing. Their landlessness and poverty present a serious problem to the current elected government. Under the more open political environment, campesino organizations are surfacing and pressuring the government to respond to their landlessness. The government's response is a land marketing program which has much opposition among large landholders.

In 1984, USAID/Guatemala provided funds to the Penny Foundation to carry out the Pilot Commercial Land Markets Project as an experimental effort to address the land problem. The Penny Foundation, a non-profit, local organization dedicated to rural development, manages a variety of programs including agricultural credit, education, housing and small enterprise promotion. It raises funds from member donations and international donors.

The purpose of the 1984 grant (Project 520-0330) was to establish a mechanism (Penny Foundation land program) which would permit small farmers to purchase arable lands and to provide them with production credit and technical assistance in a timely manner. The initial AID-funded effort established the mechanism. It resulted in the conversion of underutilized land into higher production, while at the same time increasing the living standard of the rural poor participating in the Project. The success of the Project led to additional funding of \$1 million in 1985 (Project 520-0343) and again in 1986 (Amendment to Project 520-0343) for a total of \$2 million. The 1985 and 1986 grants were labeled Phase II. The AID-funded Commercial Land Markets Project has become the Penny Foundation's largest program.

The Commercial Land Markets Projects were evaluated in May 1987. Through the date of the evaluation, the Penny Foundation had purchased 19 farms, or a total of 3,908 hectares containing 1,223 parcels. The Penny Foundation has sold 625 of the parcels to families and has obtained titles to 153 of them. An additional 400 families are candidates for parcels on the most recent farms purchased. The farms are located all over the country, as the Penny Foundation buys farms wherever it finds good deals. The price paid per hectare varied from a high of nearly \$2,363 ^{1/} to a low of \$44. The average was \$513 per hectare. The export vegetable farms in the highlands have proven profitable. The evaluation appears as a File Attachment; the summary and recommendations of it appear as ANNEX II/C.

The experience with the Commercial Land Markets Project has demonstrated that: (1) Guatemala does have significant underutilized land which owners are willing to sell; (2) subdividing the underutilized land into 2.8 hectare plots increases its productivity and is sufficient in size for the newly settled farmers to eventually earn incomes equal to those of the urban middle class; (3) intensive technical assistance and timely, supervised production credit are necessary for the success of the program; and (4) land market imperfections need to be corrected if land sales of this nature are to occur commercially on a larger scale.

^{1/} The exchange rate used throughout the Project Paper is 2.5 Quetzales to the U.S. dollar.

In 1982, an AID report, Land and Labor in Guatemala: an Assessment, recommended the development of an active commercial land market. However, it continued by saying: "It first should be ascertained...whether in the present setting there are large farm owners with significant amounts of productive, or potentially productive, lands which they would be willing to put on the market if a financial mechanism existed to facilitate fair and expeditious land transfer." In 1984, another AID report, Supply of and Demand for Agricultural Land in Guatemala, concluded that there was sufficient land for sale enabling the development of an active market in real estate. At the time of the report (2/84), the authors identified 95,000 hectares of land for sale. The Commercial Land Markets Project has confirmed land availability and the underutilization of that land. In the first three years of the Project, the Penny Foundation examined over 260 farms. The Penny Foundation had no trouble in finding sufficient and suitable land for sale, and found itself in a market where it has been quite selective.

Of the farms or portions of farms examined, 19 were bought. The prior owners had these farms in corn and beans, cattle, pasture, forest, low-yielding coffee (useful plant life was expended) and barren land. After purchase, Penny Foundation parcels were converted to export vegetables, pineapple, newly planted coffee, cacao, and fruit. As demonstrated in the economic analysis, actual income and expected income from the parcels have consistently been greater than the prior income from the land before the Penny Foundation purchase.

The farmers buying parcels were usually residents on or near the farm purchased by the Foundation. Many of them were farm laborers or subsistence farmers. While they have agricultural backgrounds, they have usually not had experience in running a farm with high value crops. The Penny Foundation has found it necessary to provide the beneficiaries with technical assistance and training in production, harvesting and marketing. The Foundation has a technician under the supervision of an agronomist at each farm to provide the necessary technical expertise. The technicians, ^{1/} who are fluent in the language of the farm's inhabitants, play a supportive role in effecting the transformation of these farmers from subsistence to cash crops agriculture. The Foundation also promotes other rural development programs on farms such as education, health and housing. This approach is proving critical to overcoming resistance to living on isolated farms and to a reduction in living standards until cash crops produce.

1/ The technician is a graduate of a technical high school specializing in agriculture (perito agronomo). The agronomist is university-trained (ingeniero agronomo).

One important lesson from the Commercial Land Markets Project is that an organization such as the Penny Foundation can act on behalf of campesinos in the Guatemalan land market. For efficient markets to work, information, contracting, and liquidity are necessary. The Penny Foundation has provided the beneficiaries with all three.

Rural poor do not have easy access to information about land offers or to those willing to sell. Events over the last 150 years have structured the Guatemalan farm community into social groups so far apart in customs, wealth, and language that communicating a willingness to buy and sell land between these groups has been impossible. Furthermore, Guatemalan latifundia owners are extremely sensitive to politically related land issues. The land expropriations of the Arbenz government between 1952 and 1954 and subsequent violent backlash still are cited as an example of dangers involved in land redistribution in this country. At the same time, landless campesinos are mobilizing to gain access to the land market. Growing polarization between the landless and those who own most of the land hinders the ability of these groups to communicate in a land market.

The Penny Foundation has facilitated the contracting and resolving of administrative problems involved in buying and dividing a farm. A willing seller will be less disposed to finance a deal if he/she is required to collect 50 small mortgage payments each month and issue loan statements. The payment and administration of surveying, subdividing, and titling would also be beyond the sophistication of most landless groups.

Finally, even if the necessary communication and negotiation were possible, there is no commercial financing of any kind in Guatemala for land purchases. Commercial banks prefer to loan for commerce and trade, or place their money in low-risk government bonds. Private bank lending for agriculture is heavily concentrated in working capital for high-value exports.

Commercial land transactions between large landowners and the landless work through the Penny Foundation because it acts as a broker and banker. It has the skills, experience and capacity to complete complicated real estate transactions. It can negotiate more effectively with large landowners than a group of campesinos and represent them in a politically non-threatening manner. It has technical personnel to appraise a farm offered for sale, estimate its profitability, and determine its value. Once purchased, it is better able to register the properties than an individual buyer. The experience of the Commercial Land Market Project indicates that many imperfections in the Guatemalan land market can be overcome.

This Project is the only AID-supported commercial land market project in the world. Further, support is consistent with AID Policy Determination on Land Tenure (PD-13, May 9, 1986), the Global Focus for AID's Agricultural Program to increase incomes of the poor majority (State 131187,

May 10, 1987), the Kissinger Commission Report of 1984, and the U.S. Senate recommendation in the Foreign Assistance and Related Programs Appropriation Bill of 1987.

Therefore, the Project strategy is to continue to support the Pen.y Foundation until it has reached a self-supporting level of land transactions compatible with its institutional capacity and style of operation; to search for other organizations with the capability and characteristics necessary to facilitate land sales that result in more productive uses of land and higher rural incomes; and to identify other market-oriented strategies and activities that can increase agricultural production, raise incomes, and reduce land-related tension. The accumulated effect of these activities, if adequately supported, can have a positive impact on Guatemala's economic problems.

3. Government of Guatemala Strategy

As stated earlier, the new civilian government, which came to power in January 1986, was well aware of its inherited macroeconomic policy problems. On the policy level, it initiated a "stabilization package," providing for reform in the area of exchange rates, government deficit reduction, price controls and interest rate policy. The GOG has made, and continues to make, progress at improving the overall economic environment, a necessary condition for the lasting success of sector programs and policies.

In December 1986, the Ministry of Agriculture issued its Agrarian Policy Overview (Bases Para Sustentar la Politica Agraria del Pais). The fundamental objective of the administration's agrarian policy is to improve the well being of those left at the margins of society (poblacion marginada). The Policy Statement establishes a more efficient use of land as a priority in improving the well being of the poor.

In general, the Agrarian Policy Overview: emphasizes increasing productivity through better land use; prohibits the expropriation of land; provides incentives to large and small farmers and foreign investors to increase rural employment; sets small farm problems as a lower priority than the landless because of political pressure and social unrest related to landlessness; and calls for a land market program, with a broad sector of potential buyers including the landless.

The activities of the Commercial Land Markets Project have been and will continue to be consistent with the GOG's Agrarian Policy. Many aspects of the pilot project are reflected in government policy statements.

While the new administration's policy supports a land purchase/sale program and a system of cooperative farms operated by campesino groups, land remains a polarizing issue in Guatemala. All parties seem to agree that expropriation is not a viable solution for Guatemala, and there is considerable support for open market land purchase programs, although many questions remain about their implementation. At this date, the GOG is promoting land taxes, colonization and land market activities to address the land problem.

4. Other Donors

There are only two land purchase programs in Guatemala. They are managed by the Ministry of Development and the Penny Foundation. The Ministry of Development supports the Pro Land Movement (Movimiento Pro Tierra) headed by a well known Catholic priest, Father Giron. The Ministry of Agriculture arranged for the purchase of two farms for the Pro Land Movement to cultivate. The Ministry of Development assists the Pro Land Movement with technical support for the farms, including solicitation of outside financing. The European Economic Community recently authorized funding for materials and supplies for the two farms. The Pro Land Movement has requested assistance from the Italian government, but has yet to receive approval.

The Penny Foundation has, of course, the support of A.I.D. in its land market program. It also has a grant of \$100,000 from the Interamerican Foundation for agriculture credit. The Penny Foundation has several long-term, low-interest loans with Solidarios, a federation of Central and South American private development foundations. The Penny Foundation uses loan proceeds for its traditional programs such as housing and small enterprise credit.

The French Government is providing 16 million to the GOG for a national cadastre, expected to begin in mid 1987 and take five years to complete. The National Cadastre and Property Assessment Office in the Ministry of Finance will be the implementing agency.

III. PROJECT DESCRIPTION

A. Project Goal, Sub-Goal and Purpose

The Goal of the Project is greater participation by Guatemala's rural poor in sustained, real economic growth. The Goal is consistent with the FY 1986 Country Development Strategy Statement and the subsequent Action Plans.

The Sub-Goal of the Project is to increase the cumulative value of agriculture through a program of better land utilization. The Project's activities are expected to result in the application of Commercial Land Market experience to other organizations and lead to the resolution of other constraints to secure land titles, land financing and other land related activities.

The Project Purpose is: To establish and expand the Penny Foundation's voluntary land purchase/sale program as a self supporting activity capable of increasing agricultural productivity and incomes of the rural poor, and to identify and promote additional instruments to increase production and reduce pressure on agricultural land.

By the end of the Project, the Penny Foundation's land program will be self supporting. The Penny Foundation will be selling annually 1,350 hectares in parcels to an estimated 360 beneficiary families.

The project research component will have produced reports on: (1) methods to expedite the processing of parcel titles in the National Land Registry; (2) need, goals, feasibility and method for reform of the Registry; (3) institutions and/or financial mechanisms identified to establish long-term financing for small and medium farm purchases and design of a follow-on project; (4) three additional organizations identified and contacted to manage land financing programs, and proposals for programs with these organizations; (5) a baseline survey and two follow-up surveys of a sample of farms and beneficiaries in the Penny Foundation program: (Campesinos selected from other rural organizations or communities will be surveyed as a control group and included in the analysis and report.) (6) policy and project implications drawn from studies of at least three additional land-related problems, including other land transfer mechanisms such as land rentals, and additional or alternative sources of rural income and employment for the land poor and landless campesinos. (These studies will build on the Penny Foundation survey and control surveys.)

B. Project Components

1. Penny Foundation

a. Land Purchase/Sale

The Penny Foundation buys large tracts of farm land and resells the land in approximately 2.8 hectare parcels to rural poor ^{1/}. It locates properties through advertising in the newspaper, real estate agents, advertising in the Agricultural Association Journal and informal contacts with members, directors and employees. The Foundation contacts those interested in selling and arranges for a Foundation agricultural engineer to visit the land being offered for sale.

The visiting agronomist writes a report on the farm containing pertinent data such as asking price, location, size, topography, soil and climatological information, present crops and their status, infrastructural characteristics, expected socio-economic impact and general impressions. If the agricultural engineer deems the farm to be satisfactory, the Penny Foundation presents the seller with its payment plan of 50 percent down with the balance to be paid over five years at nine percent simple interest.

^{1/} While the 2.8 hectare parcels are also farms, they are referred to as parcels throughout this Project Paper to avoid confusion. The term farm is a set of parcels, or a large tract of land, the Penny Foundation buys to subdivide.

If the seller agrees to the terms, the General Manager of the Foundation goes to the farm to confirm the initial farm profile. If, in the opinion of the General Manager, the farm adheres to the established criteria, the offer is presented to the Foundation's Board of Directors to authorize or reject.

When the Foundation purchases a farm, the property title is transferred to the Foundation and registered in the General Property Registry. The Foundation then begins the process of subdividing the land into family-size plots and selecting the beneficiaries for re-sale of the properties. Depending on the size of the property, the surveys and subdivisions may take up to nine months. The selection of the beneficiaries occurs simultaneously. The agronomist and the technician, who moves to the farm at this time, carry out the necessary agronomic studies to develop the farm plan. Potential beneficiaries usually begin working on the farm during this period. Often they plant subsistence crops in order to keep the farm under cultivation at the same time that preparations are made for the commercial crop.

During the first phase of the beneficiary selection process, the technician and agronomist hold meetings with potential beneficiaries to explain the policies, objectives, and requirements of the program. With the assistance of the technician, each applicant then answers a questionnaire which solicits information on number of family members, education level, property owned, income, business activities, indebtedness and possible plans for farming. The technician works with the potential beneficiaries during this phase and gets to know them personally, and can informally validate the information on the questionnaires.

The questionnaires also are processed through the computers in the Foundation office to develop a prioritized list of applicants. The technician and the agronomist use their knowledge of the potential beneficiaries and the computer list to arrive at the final group of beneficiaries.

The next phase is a trial period for the beneficiaries as they participate in projects to improve the farm's infrastructure. An individual may be asked by either the technician or the beneficiaries as a group to leave the program during this time if, for example, the beneficiary does not personally work the land or is unwilling to conform to the farm plan laid out by the Foundation. Some beneficiaries also drop out voluntarily during this period. The technician meets with them and records their reasons for leaving.

The final step is the transfer of the parcels to the beneficiaries. Each participant is responsible for a down payment of ten percent of the price of the parcel. The parcels on the farm are numbered and lots are drawn to determine the location of each beneficiary's piece of land. On many farms the beneficiaries have been unable to make the down payment

before the parcels are transferred to them. The Foundation has shown considerable flexibility in these payments in order to allow the participation of landless campesinos who have few financial assets. In some cases, beneficiaries have paid a small pre-down payment before the lottery; in others, they pay the down payment over the first six months or a year. The Foundation calculates the price of the parcel by dividing the cost of the farm plus the cost of the surveying and parceling by the number of parcels. The beneficiaries pay for their parcels over 10 years at 12 percent interest. The interest rate will go to 14 percent. Both 12 and 14 percent are above inflation and competitive with the prevailing market rate.

The Penny Foundation land purchase/sale process works well. The Penny Foundation has not kept careful statistics on those who drop-out of the program, but the technicians estimate the percentage to be around 10 percent. Most have left either due to family pressures or because the work is too hard and the payoff too intangible. Most of the technicians and agronomists feel that the group that is in place after the first year will most likely be there throughout the life of the program. The program buys land expeditiously and selects beneficiaries from those most in need. Of 386 beneficiaries in October of 1986, 316 had no other job. Total income showed that 81.6 percent had incomes under \$800 per year. Over 65 percent had no land at all and no one already owning more than 2.8 hectares was admitted to the program. Analysis and evaluation of the process indicated only one area for modification.

A financial review of the Penny Foundation in November 1986 noted the absence of an official procedure for evaluating land values prior to purchase. The May 1987 evaluation of the Penny Foundation land program found the guidelines employed in reviewing farms to be arbitrary and, at times, out of context with the area in which the farm in question is located. The guidelines were not consistently applied, or were overlooked in reviewing some potential farm offers. To improve land purchase procedures, as a Condition Precedent to Disbursement, USAID will require the Penny Foundation to submit to it the criteria for the purchase evaluation of a farm. The review of farms for purchase will be written in a standard format taking into account the established criteria and indicate those responsible for approving or rejecting an offer. The Penny Foundation will maintain the evaluation on file for periodic review by the USAID Project Officer.

The land purchase activity of the Project has been designed so that the Penny Foundation's land program will be self supporting at Foundation and Mission agreed upon levels of annual land purchases. The design team identified financial constraints as the primary obstacle to achieving the Project Purpose. Pro forma cash flow analyses were developed to ascertain the amount of funding necessary to make the Penny Foundation self supporting with a capability to continuously purchase 1,350 hectares of land per year. The institutional and social analyses indicated that, with a few procedural changes and staff additions, the Penny Foundation can manage this level of land purchases (see Administration and Management, below).

Based on the financial projections, \$1.62 million of additional AID funds will be added to the Commercial Lands Project (520-0343) for land purchases. Counterpart financing will be \$2.485 million by the end of the Project. These funds should purchase approximately 6,700 hectares over the next five years. This should result in around 1,800 beneficiary families increasing agricultural production and their incomes. This level of funding along with proper financial monitoring will allow the Penny Foundation to be self-supporting and maintain a positive cash flow.

A summary budget for this activity is:

	(US \$000)			
	Prior Obligation	AID Amendment	Penny Foundation	Total
Cash Purchase of Land	\$900	\$1,620		\$2,520
Certificate Principal			\$1,900	\$1,900
Certificate Interest			585	585
	<u>\$ 900</u>	<u>\$ 1,620</u>	<u>\$ 2,485</u>	<u>\$ 5,005</u>
	====	====	====	====

b. Farm Management

As mentioned earlier, the beneficiaries of the Penny Foundation land program need technical assistance. The Foundation provides initial technical assistance free of charge to each farm. It expects the beneficiaries to realize the benefits of such assistance and contract technical assistance on their own as their incomes rise. Penny Foundation technicians and agronomists carry out the technical assistance program.

The job of technician requires a wide range of skills. The Foundation hires a technician to live on the farm shortly after its purchase. He assists in the initial agronomic and parcelling decisions and participates in beneficiary selection by getting to know and evaluate potential beneficiaries who work on farm infrastructure projects (e.g., preparation of nurseries and road building). He decides what the beneficiaries will plant, where they will plant it, and how they will cultivate it. He manages farm supplies, payroll and accounting. He meets with beneficiaries who wish to leave the farm to counsel them in their decision. He mediates disputes between neighbors, contacts agencies with programs of possible benefit to the farm, and represents the beneficiaries in their dealings with the Foundation.

The agronomists link the farms and the technicians with the Penny Foundation central offices and coordinate and supervise all aspects of technical assistance. Each agronomist is responsible for four to eight farms, divided regionally. He visits each farm weekly, discusses the past week's activities with the technician, provides on-the-spot technical advice or notes the problem for additional consultation, and brings farm inputs in a Foundation-provided vehicle.

The Penny Foundation maintains its own technical assistance unit to insure reliability. It has utilized public and non profit agency technical assistance, but refuses to establish any formal ties to collaborate with other organizations. The Foundation seeks out individuals in support agencies who are technically competent or who share its development philosophy. This method of supplementing technical assistance from other agencies works and will be continued.

The institutional analysis found the Foundation's personnel structure and assignments for the Farm Management activities to be functioning successfully, although the amount of time the technicians spend on administrative matters may be a potential problem. According to the social soundness analysis, because of their varied role, the technicians need additional training and logistical support, especially in educating the beneficiaries about credit and in social work. As the program grows, the Penny Foundation will staff regional centers, described in Administration and Management Activity, to provide the recommended support and training and reduce the time the technicians spend on administrative matters.

To service all farms purchased, the Foundation will need 12 agronomists and 48 technicians by the fifth year of the Project. Project funds will pay their salaries until 1991 when support shifts to the beneficiaries and Foundation revenues from the land purchase program. Up to \$620,000 in AID funding will be necessary for Farm Management salaries. The agronomists and technicians will need vehicles and travel expenses. The Penny Foundation will buy 10 four-wheel drive vehicles by the end of the Project using \$65,000 in counterpart funds. A.I.D. will budget \$17,000 for motorcycles for the technicians. At \$80 per month for agronomists and \$60 per month for technicians, the USAID follow-on funding for Farm Management travel is \$120,000.

A summary budget for this activity is:

	(US \$000)			
	Prior A.I.D. Obligation	AID Amendment	Penny Foundation	Total
Salaries	\$280	\$305	\$ 35	\$620
Vehicles		17	65	82
Travel Expenses		120		120
	<u>\$ 280</u>	<u>\$ 442</u>	<u>\$ 100</u>	<u>\$ 822</u>
	====	====	====	====

c. Production Credit

The policy of the Penny Foundation is to provide the necessary working credit to each farmer. The credit is presently loaned at 12 percent interest but this will increase to 14 percent next year. As with the land sales, this rate is above inflation and competitive with market rates. Production credit on vegetable and annual crop parcels is payable annually. On the parcels with permanent crops the interest accrues until the beneficiaries have crop income.

The credit is for farm materials, such as fertilizer, seed and root stock, and a subsistence wage. The beneficiaries apply as a group through their Directiva (committee representing the beneficiaries) to the Foundation for credit. The Penny Foundation purchases the farm materials which it delivers to each farm. The amount of farm purchases is divided equally among the beneficiaries. The Foundation also provides credit to the beneficiaries until the permanent crops come into production. The Foundation provides credit in the form of "salaries" for work on the farm. The beneficiary donates half of his/her work time and is "paid" for the other half. Production credit at the end of two years for a representative parcel was about \$500, with an additional \$125 lent for wage labor.

The Penny Foundation will continue to provide the beneficiaries with credit because there is no other reliable credit available, and the short-term credit is a good source of cash for the Foundation. Commercial banks will not lend to Foundation beneficiaries as they limit their lending to those with large amounts of collateral. Even when the Central Bank makes abundant credit available for agriculture, the commercial bank collateral requirements limit the recipients to large farming operations. The National Agricultural Development Bank (BANDESA) is a public sector bank that specializes in lending to small- and medium-scale farmers. Unfortunately, its future is not bright. It has financial problems, which preclude it from being a serious source of working capital for the Penny Foundation beneficiaries. While savings and loan cooperatives would not be adverse to Foundation beneficiaries joining and applying for credit, the need for the farmers to apply as a group and coordinate with the Foundation technician makes this administratively unworkable, at least in the short-run.

In addition, recuperation from short-term lending with AID grant funds is the only short-term income source the Foundation has to match up against its short-term borrowing. It is not in the Foundation's interest to send beneficiaries to some other source for working capital as it would decrease cash flow and increase the Foundation's ratio of long-term lending to short-term borrowing.

Based on the financial analysis, the total amount of farm credit necessary to meet the annual needs of the Penny Foundation for five years is \$4.34 million.

A summary budget for this activity is:

	(US \$000)			
	Prior A.I.D. Obligation	AID Amendment	Penny Foundation	Total
Production Credit	\$450 =====	\$3,888 =====	=====	\$4338 =====

d. Administration and Management

With some organizational changes, the Penny Foundation will continue to carry out the Project. The planned changes are the introduction of regional centers for Project management and the addition of a few staff positions.

The Penny Foundation has four regional centers to support its traditional programs of housing and small business, but has not used them for the land market program. The utilization and addition of the regional centers in the land market program would bring numerous advantages. They would provide better access to potential beneficiaries. They would act as centers for identifying potential beneficiaries for farms purchased in the area or for farms outside the area. They would provide administrative support to the agronomists and technicians. Agronomists could avoid having to carry checks and messages between the Guatemala City office and the field. They would also coordinate their activities better with a secretary and telephone. The technicians would be able to make a relatively short trip to the regional office for administrative chores and monthly meetings to discuss problems. The regional offices would also serve as technician training centers for short courses in areas such as farm technology, use of pesticides, group dynamics and social work.

The financial analysis identified a critical need for the Foundation to monitor its cash flow more rigorously. Because of the importance of financial planning, the present Foundation financial manager will shift to full-time work on the land program. He will concentrate on financial planning and analysis, cash flow projections, and consolidation of financial aspects of farm plans and credit needs. He will be assisted by a new computer applications department, staffed by a programmer and an assistant. The computer applications department and accounting departments will require additional computer equipment, software, computer training and technical assistance (see Financial and Economic Analysis and EXHIBIT F - Information Systems Analysis section). A technical advisor will assist with the design of the data bases and financial reports. This should require two weeks and could be contracted through an arrangement such as the existing TSM contract with the Texas Tech University.

The institutional analysis recommended the hiring of a person to manage purchasing. This purchasing specialist would handle purchasing of farm suppliers and record-keeping, arrange for transportation of materials to be delivered to the farms, manage central warehousing, and monitor price quotations. This position would relieve technicians and agronomists from having to arrange for farm inputs transportation and improve warehouse management and control.

Because of the size of the expanded Project, USAID will finance a Project Manager on its staff. The agricultural expertise of the Penny Foundation obviates the need for a Project Manager with an agricultural background. The position will be primarily managerial. The individual will be hired under a personal service contract to monitor and evaluate Project progress. The Project Manager will advise USAID on all matters pertaining to Project administration and operations. The person will serve as a general advisor in the identification of Project problems and their resolution.

In 1986, a USAID financial analysis documented minor problems with the Foundation's accounting controls. It found that determination of counterpart was difficult, a special report on the financial status of the Grant Agreement was missing in the external audit and the controls for inventory purchasing and handling were nebulous. The institutional analysis undertaken for the Project Paper also recommended improvements in administrative and financial controls, most notably in planning, internal auditing and record-keeping. The establishment of a computer applications department, hiring of a procurement specialist, purchase of accounts receivable software, utilization of regional centers, and tighter Project reporting requirements should address these concerns.

To evaluate the effectiveness of these Project administrative changes, USAID funds will pay for an audit of the Foundation's system of internal accounting and administrative controls to evaluate budgeting, land purchases, disbursements and payments controls. It will serve as an evaluation of the Foundation's modified procedures for activities such as budgeting, land purchases, disbursements and payment controls, procurement, inventory handling and management, credit collections and payroll. This audit will take place six months after recommended changes such as the hiring of a procurement specialist and implementation of accounts receivable software - are completed. The Project liaison officer will request assistance in drafting the scope of work from the Regional Inspector General's Office in Honduras. A Guatemalan accounting firm with a U.S. affiliate will conduct the audit. With the Regional Inspector General's concurrence, this systems audit will fulfill the pre-award audit requirement.

The Penny Foundation received \$50,000 for its traditional programs as part of the original Project 520-0343 grant. The Foundation will maintain its traditional programs and integrate some of them into the land purchase program. The Foundation will begin to offer and/or arrange for

housing, education and health programs for the farms. This facet of the program will be fully funded by the Penny Foundation as a counterpart contribution.

Successful financial and organizational management are fundamental to the establishment of the program as self-supporting and sustainable. As stated in the Evaluation and Monitoring Plan (section V E), a consultant is needed at the end of 1988 to assess the extent to which the financial control and informational needs of the program are being met. In addition, the on-going project evaluation included in the Project research component will monitor organizational changes to assist the Foundation in identifying organizational problems as they arise and in financing timely technical assistance to deal with them. Some of the topics to be examined include: changes in the management requirements with an increase in the number of farms managed and beneficiaries served; trade-offs made in program expansion between factors like land cost, land sale price to beneficiaries, number of beneficiaries and farm investment costs; long term institutional financial viability; contact with other development organizations for program expansion. A fund of \$100,000 is budgeted for technical assistance for the Penny Foundation in institutional and financial management.

Based on the budgets used in the cash flow analysis, A.I.D. will reimburse the Penny Foundation up to \$290,000 for administrative salaries for staff such as the program director, financial director, regional staff members, procurement specialist, administrative assistant, paralegal, accountant, data processing programmer, data processing assistant and secretary. A.I.D. funds will provide \$600,000 for the project liaison officer for four years. The budget will include \$28,000 in A.I.D. funds for rent and \$2,000 for miscellaneous equipment and supplies for the regional offices. The Project will use \$28,000 in grant funds for computer equipment, software technical assistance and training and \$100,000 for institutional and financial technical assistance. Finally, A.I.D. will pay \$5,000 for the audit of the Foundation's system of internal accounting and administrative controls. The Penny Foundation will spend \$865,000 for traditional programs to support the land purchase program.

A summary budget for this activity is:

	(US \$000)			
	Prior A.I.D. Obligation	AID Amendment	Penny Foundation	Total
Salaries	\$ 120	\$ 170		\$290
AID Project Manager		600		600
Rent - Regional		28		28
Equipment and Miscellaneous Supplies		2		2
Audit		5		5
Computer		28		28
Institutional Technical Assistance		100		100
Traditional Programs	50		\$ 915	965
	<u>\$ 170</u>	<u>\$ 933</u>	<u>\$ 915</u>	<u>\$ 2,018</u>
	===	===	===	===

2. Research

The Mission became involved in the Penny Foundation Commercial Land Market Project in 1984 to demonstrate that a land market program can succeed. During the first three years, the Foundation has developed an impressive pilot project; continued support to maintain the quality of the program and to enable it to become financially independent is essential.

At the same time, the scale of the program is limited in proportion to the size of the landless population in Guatemala. Mounting social and economic pressures from landlessness in rural areas emphasize the need for expanded efforts. The Research component of the Project addresses this broader problem. An extensive evaluation to analyse, document and publicize the Penny Foundation experience will serve other organizations seeking to duplicate their program. More importantly, the project's research component will investigate a variety of options for designing additional land-related projects to open the land market to a larger portion of the landless population. Land related activities identified by Project-funded research could be considered as candidates for local currency support (ESF or PL 480).

Four broad areas of study will be funded: (1) a baseline survey and long-term monitoring and evaluation of the Penny Foundation Project; (2) an analysis of the General Property Registry and development of proposals for reform of the registration process; (3) a study of the feasibility of and design for a land bank or other financial/institutional mechanisms to provide loans for land purchase; and, (4) the identification of alternative organizations and approaches to expanding the land market program and/or dealing with the problem of landlessness.

a. Penny Foundation Study:

The Penny Foundation project is a unique effort to improve access to land for small farmers through the land market. The evaluation will document and analyze the costs and effects of this project. It is important not only as input to improve the Penny Foundation project but also to provide information for developing future programs in Guatemala and for designing strategies and projects to cope with land problems in other countries.

The evaluation will involve three levels of analysis of the cost and impact of the program, the beneficiary, the original farm unit and the Penny Foundation as an institution. The studies will continue through the five years of the Project. The evaluation will consist of a baseline survey of a sample of Penny Foundation farms and beneficiaries in late 1987 or early 1988, and two follow up surveys in years three and five of the project. Surveys spaced at two year intervals will allow a continuous accounting of the Project effects at

the beneficiary and farm level. The surveys will be accompanied by case studies of selected farm units and an on-going monitoring of institutional changes in the Penny Foundation. The detailed case study examinations, concentrated in alternate years, will assist in the interpretation of the survey data as well as provide in-depth organizational analysis.

The sample for the baseline survey will be drawn from the farms and beneficiaries as soon as possible after purchase of the farm and selection of beneficiaries. Stratification of the sample will insure that it is representative of variations in farm size, region, and crop. The survey will focus on changes over time in characteristics of the beneficiary families, especially income and level of living and on the utilization and production of the original farm unit. It also will monitor the ability of the beneficiaries to meet debt obligations and pay off their land, and the formal and informal changes in ownership and management of the farms over the five years. When the baseline survey is undertaken early in 1988, the Penny Foundation will have at least 1000 beneficiaries and 20 farms. A sample of 500 beneficiaries and 15 farms will be large enough to allow generalization to the entire group.

The Penny Foundation surveys will be matched by surveys of a sample of campesinos from other organizations or communities in Penny Foundation regions. These groups may be drawn, for example, from other private voluntary organizations, cooperatives, peasant organizations, migrant worker and/or land rental networks. The questioning of these groups will serve two ends in the project research component. The groups will serve as a control sample for the Penny Foundation surveys, so that cross sectional as well as longitudinal comparisons are possible. They also will be the basis for identifying and developing the background information needed for designing alternatives and additions to the Penny Foundation program. The control samples will include from 300 to 500 campesinos.

Finally, the evaluation will monitor the institutional changes in the Penny Foundation program, in terms of changes in financial and information management, farm management, terms of expansion, etc. A central objective of this project is to provide the backing so that at the end of five years, the Penny Foundation program is viable and self-supporting. This part of the evaluation is intended to assist the Foundation in identifying organizational problems as they arise and to finance timely technical assistance to deal with them. A fund of \$100,000 is budgeted for technical assistance for the Penny Foundation in institutional and financial management. A record of Foundation experience in administering the program also will be important to the design of similar projects with other organizations.

Project personnel at the Penny Foundation have expressed support for this type of evaluation and would like to participate in it. The database files maintained by the program include beneficiary and farm characteristics. These will be tapped for baseline and follow-up information and will provide the frame for drawing the sample of beneficiaries. The

Foundation is interested in the research to gain insights into how to improve its program but also as a means of publicizing the project. In this regard, the USAID mission should consider the possibility of preparing a video documentation of this project.

The baseline survey and follow-up evaluation studies could be implemented in collaboration with the LAC/DR/RD regional project, Tenure Security and Land Market Research Project (598-0638). Affiliation with this project would insure comparability of the Guatemala studies with others in Latin America, and it will facilitate the dissemination of the research results on a regional basis. Supplemental funding is available through this regional project so that a comparative perspective can be built into the design. (See Annex II/H for detailed information on implementation procedures).

b. General Property Registry Study

The Penny Foundation has experienced significant delays in the registering of bills of sale in the General Property Registry (Registro General de la Propiedad). The registration of title transfer from the seller to the Penny Foundation is usually done quickly, but the transfer of parcel titles from the Foundation to the campesinos has dragged on for months. The delays reflect the fact that Registry personnel are paid according to the value of the property processed. In addition, all registrations are entered by hand and there are only two offices for the entire country. The process is cumbersome and costly. For the Penny Foundation program, the delays are important primarily because, without documents, some beneficiaries have questioned the legitimacy of the land sales. (Initially, the mortgage bonds for the program were to be backed by individual parcels but this problem has been corrected). More generally, the delays and costs in the Registry are a constraint to developing a more efficient land market, accessible to large and small owners alike. The new constitution calls for the reorganization of the Registry, and the establishment of an office in each of the 22 departments.

This study will first analyze ways to expedite the movement of Penny Foundation titles through the Registry, and then examine the need, goals, method and feasibility for reform of the institution. Analysis will begin within the first year of the new project and could also be implemented in collaboration with the LAC/DR/RD regional project. The team involved in the study will include specialists in cadasters and land information systems, land law, and surveying and cartography. It will be important to ascertain the role of the GOG and of other donors in institutional reorganization.

c. External Financing and Land Bank Feasibility Study

As a pilot project, the Penny Foundation program has had minimal substantive impact on the problem of landlessness in Guatemala, and there are institutional limits to the ultimate size of this program. One alternative for coping with some of the imperfections in the land market and

facilitating land purchase by small and medium-size agriculturalists is to develop financing mechanisms such as mortgage bonds. Another is to establish a full-scale public or private sector land bank. Drawing on the 1983 design studies for the proposed Commercial Land Market Project and the experience of the Penny Foundation in attempting to issue mortgage bonds, research will be undertaken to analyze the potential for a land bank and the financing mechanisms to support this effort.

This research will involve creatively exploring a variety of financing options. Several avenues exist for developing this program. It may be implemented through the Technical Services to Mission contract with Texas Technical University which was involved in developing the 1983 proposal. Another possibility is to seek assistance from INCAE in Costa Rica, or other contractors specializing in finance. The research should be directed by a person with knowledge of third world financial markets and banking. It will require the collaboration of representatives from the Guatemalan financial community, experts from other countries with comparable financial markets, and from the academic and international banking communities.

d. Alternatives and Additions to the Penny Foundation Program

The development of a land bank and external financing is one option for expanding the land market program. Funds will also be provided to identify and design projects for other organizations which could manage land purchase/sale programs. Potential candidates might include other national or regional nongovernmental organizations, government land programs, public or private banks, and savings cooperatives.

Studies also will be undertaken to gather basic information on how the land market operates, to identify policy and institutional constraints and to identify alternative avenues to land access as, for example, through land rentals. Finally, data from the Penny Foundation and control surveys will be used as the basis for studies to examine the policy and project implications of the relationship between land tenure and other sources of employment and income for rural households. Since there is not enough land to provide income and employment for all the rural population today and certainly not for the next generation, it is important to examine the links between land programs and non-land alternatives.

These studies will build on and complement the Penny Foundation and control group studies and could be implemented in collaboration with the LAC/DR/RD regional project. They will be directed by a social science researcher from the U.S. but will benefit greatly from collaboration of local researchers and perhaps graduate students. These studies will begin with the baseline surveys and will continue through the life of the project.

The outputs of the research component will include the Penny Foundation project evaluation, with special attention to the factors to be considered if other organizations want to duplicate the program. Documenting and publicizing this experience for others in Guatemala and

elsewhere in A.I.D. is an important product of this effort. The research also will produce specific proposals for expediting the process at the General Property Registry, for developing long-term loan mechanisms for land purchase, and for additional land market programs. Finally, it will provide necessary background studies and analyses to address policy and strategy issues involving land and rural development.

The total cost for the research component of the project will be \$750,000 over five years with \$142,00 set aside for contingencies and inflation. Illustrative budgets are included in Annex II, Exhibit H.

A summary budget for this component is:

	(US \$000)			
	Prior A.I.D. Obligation	AID Amendment	Penny Foundation	Total
Baseline and Monitoring surveys		\$285		\$285
General Property Registry Study		80		80
External Financing and Land Bank		92		92
Alternative to Penny Foundation		151		151
Inflation		71		71
Contingencies		<u>71</u>		<u>71</u>
		<u>750</u>		<u>750</u>
		===		===

C. Summary Budget and Financial Plan

The total Project cost is \$14 million. The add-on to the original \$2 million grant will be \$8.5 million, of which \$7.75 in A.I.D. funds will be for the Penny Foundation component. \$750,000 will be used for research into land and land-related problems. Within the A.I.D. funds for Penny Foundation component, 44 percent will be spent on credit, 23 percent for land, and 29 percent for technical assistance and administration. The counterpart contribution will be \$3.5 million. The Penny Foundation will spend \$2.485 million for land purchases, \$100,000 for the Farm Management component and \$915,000 for traditional program support to the farms. This contribution equals the required 25 percent of project total.

In addition, inflation was built into the financial calculation for land and credit needs on a compounded basis. Land costs used a six percent factor while credit estimates used five percent. Further allowance of \$1.2 million was made for contingencies and inflation as line items. A detailed budget by Source of Funds, Project Outputs/Inputs and Disbursement Schedule by Years appear as ANNEX II.B.

COMMERCIAL LAND MARKETS 520-0343 SUMMARY BUDGET (U.S. \$000)		PRIOR A.I.D. OBLGATN	A.I.D. AMNDMT	PENNY FNDTN	TOTAL
PENNY FOUNDATION COMPONENT					

LAND PURCHASE/SALE					
CASH PURCHASE OF LAND	900	1,620			2,520
CERTIFICATE PRINCIPAL PAYMEN				1,900	1,900
CERTIFICATE INTEREST PAYMENT				585	585

SUB TOTAL	900	1,620		2,485	5,005

FARM MANAGEMENT					
SALARIES	280	305		35	620
VEHICLES				17	82
TRAVEL				120	120

SUB TOTAL	280	442		100	822

PRODUCTION CREDIT LOANS	450	3,888			4,338

ADMINISTRATIVE COSTS					
SALARIES	120	170			290
AID PROJECT LIAISON				600	600
RENT - REGIONAL OFFICE				28	28
EQUIPMENT & MISC SUPPLIES				2	2
AUDIT				5	5
COMPUTER EQUIPMENT, TRAININ				28	28
TRADITIONAL PROGRAMS	50			915	965
INSTL TA AND TRAINING				100	100

SUB TOTAL	170	933		915	2,018

INFLATION	50	228			278 ^{1/}
CONTINGENCIES	150	639			789

COMPONENT TOTAL	2,000	7,750		3,500	13,250

1/ Inflation calculations were already built into the amount budgetted for land and credit. Land costs are calculated using a 6 percent rate compounded annually and credit using 5 percent compounded annually.

COMMERCIAL LAND MARKETS

520-0343

SUMMARY BUDGET
(U.S. \$000)
RESEARCH COMPONENT

PRIOR
A.I.D. A.I.D. PENNY
OBLGATN AMNDMT FNDTN TOTAL

	PRIOR A.I.D. OBLGATN	A.I.D. AMNDMT	PENNY FNDTN	TOTAL

PENNY FOUNDATION STUDY				
STAFF SALARIES		77		77
RESEARCH EXPENSES		90		90
INTERNATIONAL TRAVEL		48		48
DIRECT COSTS		16		16
OVERHEAD		54		54

SUB TOTAL		285		285

GENERAL PROPERTY REGISTRY STUD				
STAFF SALARIES		33		33
RESEARCH EXPENSES		8		8
INTERNATIONAL TRAVEL		19		19
DIRECT COSTS		3		3
OVERHEAD		17		17

SUB TOTAL		80		80

EXTERNAL FIN AND LND BNK STUDY				
STAFF SALARIES		12		12
RESEARCH EXPENSES		50		50
INTERNATIONAL TRAVEL		11		11
DIRECT COSTS		3		3
OVERHEAD		16		16

SUB TOTAL		92		92

ALTRNTVS & ADDTNS TO PNNY FNDT				
STAFF SALARIES		37		37
RESEARCH EXPENSES		51		51
INTERNATIONAL TRAVEL		25		25
DIRECT COSTS		10		10
OVERHEAD		28		28

SUB TOTAL		151		151

INFLATION		71		71
CONTINGENCIES		71		71

COMPONENT TOTAL	0	750	0	750

TOTAL	2,000	8,500	3,500	14,000
=====				

IV. PROJECT ANALYSES

A. Institutional Analysis

The Institutional Analysis (see ANNEX II.C.) examines the Penny Foundation and discusses its capability to manage an expanded Project. A summary of the findings in the institutional analysis is presented in this section.

The Penny Foundation is a competent and dynamic organization. Through lengthy experience and experimentation, it has established an effective functional integrated development model for rural Guatemala. Land is an important part of this model, but production credit, technical assistance, education and health are other important variables.

The objective of the Commercial Land Markets Project is compatible with the philosophy, principal areas of activity and experience of the Penny Foundation. The Project however, will require the Foundation to change some of its management practices. Top management will have to decentralize decision-making and shift from direct action to guidance and control. The Foundation has already made some management changes in anticipation of the Project and is considering others. The Foundation has the flexibility and willingness to adapt to new conditions and demands such as those brought on by the Project. The Commercial Land Markets Project, as now designed, can successfully be managed by the Foundation.

No major changes are needed in the organization at the managerial level of the Foundation except in finance and data processing. The Foundation has hired a capable Assistant General Manager who will reorganize a few offices and administer the finance department. He will assign a person to supervise specific areas such as credit collection, financial planning and personnel management which are being partially neglected at present. He will assign a finance and planning person full-time to the Division of Land Commercialization. He will also be responsible for written policies, procedures and job descriptions which serve to support the gradual decentralization of decision-making of the Foundation. Separate data processing centers will be established in the accounting department and in the Division of Land Commercialization. This should greatly improve control and decision-making. Data processing training will be necessary.

These changes will permit the General Manager to dedicate more time to global planning, inter-divisional coordination, fund-raising and membership drives. Local fund-raising and new membership are areas which have been somewhat neglected. The Foundation is relying increasingly on international agencies for financial support.

The Division for Land Commercialization will slowly decentralize. Two regional centers will be established with Project funds to support

collections, training, program promotion, interdepartmental coordination and communication. This will allow the Division Director to spend more time in administration and less time in the field. The administration of the farms through the regional centers will enable the Division Director to have a manageable span of control, even with the large number of agronomists to be hired for the land purchase program. Because of the increase in centralized purchasing and deficiencies in inventory control, the Foundation will staff a position in procurement and materials storage.

Technical assistance levels are adequate. The average ratios of one agronomist for four farms and one agricultural technician on each farm are appropriate. The technician is involved in a wide variety of technical, managerial, commercial, purchasing and promotional functions. This reduces cost but also reduces agricultural support and control. Additional management training or farm administrators may be needed in the future as farms become profitable.

Planning exists but is deficient. Each farm has a ten-year budget, but the Foundation does not have written global plans. Long-term strategic concepts have been discussed but specific objectives have not been established. Projected cash flows are not maintained on a systematic basis. Financial planning will improve with the reorganization of the financial and data processing departments.

Foundation employees are capable and motivated. Employee turnover is low. No work-related conflicts among employees were identified. Personnel policies and procedures are lacking, although the new Assistant General Manager plans on developing them in the near future.

Basic financial and systems controls exist in the Penny Foundation and in the Division of Land Commercialization. The Foundation has had an external annual audit the last two years. Records are kept for land purchasing, credit extension by user and by farm, payroll, payments and overdue accounts, and other principal activities. Some decisions are excessively centralized for control purposes. In many areas, Foundation controls involve various people at different levels of the organization in the same activity. Record-keeping and reporting are deficient. The information usually exists, but is not well organized or systematically presented. The Foundation is improving its record-keeping and reporting, particularly for the Project.

The processes used for the land purchase, the beneficiary selection, and the credit provision work smoothly.

To improve its overall performance and adapt to the additional growth which will be required by the Project the Foundation should: dedicate more effort to local fund-raising and new membership; establish written policies and procedures for land purchasing, credit authorization, expenditure

authorization; reorganize the financial and data processing departments as indicated in this report; initiate global planning complete with specific objectives; continually update cash flow projections; improve the quality of projections on costs, land values, prices and other environmental aspects by using the collaboration of specialized outside institutions and associations; decentralize decision-making and controls based on the importance of the decision; establish a specific position for purchasing and materials handling in the Division of Land Commercialization; establish a specific budget for managerial and technical training; establish written policies and procedures for personnel management; improve record-keeping systems; and adapt reports to decision-making centers and potential problem areas.

Care should be taken not to promote excessive land purchasing while disregarding the other key aspects of production credit, education, technical assistance and health of the integrated rural development model. The basic creativity and flexibility of the Foundation should be nurtured to promote continued improvement of the model. As the farms grow, the Foundation should examine the need for: a position in credit, collections and personnel management; three positions as farm administrators; and one position specializing in marketing and exports.

B. Financial and Economic Analysis

The financial and economic analyses, contained in ANNEX II/F, examined the profitability of the parcels, the financial viability of the Penny Foundation's land market program, the information system and reporting requirements of the Foundation, and the benefit/cost ratio. This section summarizes the findings.

Beneficiary Profitability

In general, the Penny Foundation organizes two types of farms: those that cultivate vegetables and a food crop; and those that plant permanent crops and a food crop. The crop profitability analysis used actual data from three years of experience. The net income calculations from a representative hectare of coffee, pineapple and broccoli appear in ANNEX/F. For coffee, the beneficiary goes into debt for about \$2,400 by the end of the second year. Yet, by the end of the fourth year, the beneficiary has paid off his accumulated production credit and accrued interest. At the end of year five, the beneficiary begins to make payments on his land debt. By the end of year seven, the beneficiary is earning a net income of \$2,800 not including in-kind and commercial income from .75 hectares of corn. For pineapple and broccoli, the results are immediate. Pineapple nets a family \$755 only 18 months after planting, and \$1,200 after the second year. Broccoli produces a profit of \$2,400 the first year and \$2,500 the second.

The analysis also uses the income capitalization to estimate the market value of the parcels; that is, the annual flow of income to the land determines how much the land is worth. For the land in these three crops, the parcel cost, and subsequent beneficiary land debt, was less than the estimated market value. Assuming that product and input prices do not move too drastically in the wrong direction, and that estimated production levels do not fall more than 40 percent, and given a continuation in the present structure of Guatemalan agriculture, the small farms established by the Foundation are financially sound and profitable.

Penny Foundation Financial Viability/Recurring Cost Analysis

The objective of the financial analysis was to structure the Project so that the Penny Foundation's land program would be self supporting at Foundation and Mission agreed upon levels of annual land purchases. Pro forma cash flow analyses were developed to ascertain the amount of funding necessary to make the Penny Foundation self supporting by 1991 with a capability to continuously purchase 1,350 hectares of land per year.

Three cash flow projections demonstrated various ways for the Penny Foundation to reach a self supporting level. The projections demonstrated how the Foundation's management of its debt from seller-financed land sales or sale of bonds and its lending to beneficiaries for land and production credit would determine its level of operations and success. Based on the pro forma statements, an additional A.I.D. grant of \$7 million was needed for the Penny Foundation to achieve the desired level of 1,350 hectares per year.

Debt financing of the Penny Foundation's growth through bond sales was originally believed to be an option. As demonstrated in one cash flow projection, bond sales are not recommended. The sale of Foundation bonds in the Guatemalan capital market would force the Foundation to reduce its annual level of land purchases to service the debt. The Penny Foundation can expand its program in a self-supporting manner if it finances its operations from capital and closely monitors its debt.

Information System Analysis

The manner in which the Penny Foundation manages its cash from the land purchase program is critical. Financial planning is imperative. The Foundation will produce, on a quarterly basis, cash flow and pro-forma information for: land purchase activity as a whole; farm level as a whole; farm level by hectare; farm level by crop; farm level by beneficiary and/or parcel; break even and shutdown prices and/or sales level for each crop and farm.

Additional computer equipment and personnel are needed to meet the proposed data processing and reporting needs of the land purchase program.

The Penny Foundation will create a separate computer applications department with one administrator and assistant. The department will be responsible for database management of operational and financial data.

Economic Analysis

The economic analysis of the Penny Foundation component of the Project also calculated benefit-cost ratios based on two model farms. The models were developed using actual production costs, price and yield information for representative crops from the Foundation's existing farms.

The analysis showed economic benefit-cost ratios of 1.65 for Example Farm 1 and 1.53 for Example Farm 2 using an opportunity cost of capital of 15 percent. A scenario which calculated the ratio with a non-quota price for coffee did yield a benefit cost ratio of 0.96. This, however, is a "worst case" scenario which uses a conservative discount rate and a lower than expected price for coffee. The internal rate of return for Example 1 is 53 percent. For Example 2, since the net benefit stream is positive throughout, an internal rate of return calculation was not possible. To calculate the internal rate of return, the benefit stream must have both negative and positive values.

The Project shows a higher economic rate of return than most projects in the AID/Guatemala portfolio. Thus, if the Penny Foundation continues to use its current land purchase selection criteria and technical assistance and credit programs for the rural poor, the activities occurring under this Project should have a high rate of return similar to those in the past.

The estimated number of person-years of employment that will be generated as a result of the project is 49,200. This was estimated using the labor requirement for the four represented crops and applying it to the project portfolio over the life of the project.

C. Technical Analysis

USAID/Guatemala has been funding the Pilot Commercial Land Markets Project with the Penny Foundation since late 1984. A recent evaluation of the project (File Attachment) shows an innovative program which has met its targets successfully. The Foundation has maintained an autonomy from USAID, which is essential in this politically sensitive activity, but has been open and cooperative in terms of reporting requirements and evaluation. Given USAID's decision to obligate additional funds for expanding the Penny Foundation program, the principal tasks of the project design team have been to analyze the amount of money needed, the potential sources of funds, and the management capacity of the program. The technical analysis discusses only the first two topics. The question of managerial capacity is the subject of the institutional analysis and recommendations from that analysis have been incorporated into the project design.

Background:

In approving the Foreign Assistance and Related Programs Appropriation Bill for 1987, the U.S. Senate recommended that \$5 million be set aside for Guatemala land purchase programs. USAID considered various options for use of these funds, including dividing them to implement several projects like that of the Penny Foundation, obligating a part to the Penny Foundation, a part to the government and a part to cooperatives, and adding to them in order to capitalize a land bank or a Central Bank guarantee fund. These alternatives were by-passed for the present because all require substantial background investigation and design before they can be funded. In order to respond to the Senate recommendation in a timely manner, USAID decided to commit about \$8.5 million to its successful on-going project. Up to \$1 million would be retained to fund studies of alternative land market financing entities, reform of the land registry and studies of Guatemala's land problems. This research would be done in anticipation of future land programs.

Justification for the land market approach:

While the immediate impulse for expansion of the Commercial Land Markets Project this year came from the U.S. Senate, USAID's concern with rural land distribution as a constraint to agricultural and rural development is not new. A 1982 USAID contracted study, Land and Labor in Guatemala, recommended strengthening the land market and removing the constraints to small farmer access as an appropriate approach to coping with land problems in Guatemala. The Penny Foundation pilot project evolved from this study.

Land-related political pressures have been mounting since the return of elected government to Guatemala. In the debate of land issues, consensus seems to be developing around two points: that land expropriation should not occur in Guatemala; and, that improving the campesinos' ability to buy land from willing sellers may be a non-violent avenue to change. The memory of the violent backlash to the expropriations of the 1950s and the inefficiencies observed in the parcelamientos of the early 1960s, have turned the GOG's attention to other alternatives. Costly colonization projects have uprooted whole communities from the highlands and resulted in the deforestation of fragile tropical lands inappropriate for farming. The tax on abandoned and under-utilized land, intended to encourage landowners to use their land productively or sell it, is minimal, ineffective and difficult to enforce. Both the Ministry of Agriculture and the organizations of landless campesinos have endorsed the land market approach. Until the recent purchase of farms by the GOG, the Penny Foundation program was the only attempt to implement this policy. The presence of many large landowners among Foundation members may indicate a tacit acceptance of the approach on their part as well.

The Penny Foundation Land Purchase/Sale Program:

The Penny Foundation program was initiated in 1984, with a \$1 million grant "to demonstrate the feasibility of a private sector land commercialization program" (Project 520-0330). An additional \$1 million was added in each of the following two years to maintain the project implementation rate (Project 520-0343). With the \$3 million in grants, the Foundation has purchased 3,905 hectares of land at a rate of more than 1,000 hectares per year (1,465 in 1984-5, 1,377 in 1986, 1,063 by mid-1987). The farms have been divided into 1223 parcels to be resold to landless families.

The program has three essential activities: the purchase of land from large landholders; the sale of land to landless and land-poor beneficiaries; and, the investment of technical assistance and production credit to increase the productivity of the land and insure the profitability of the small farms being created. Up to now, the program has allocated about 40 percent of the funds on land purchase, 46 percent on credit, and the remainder on technical assistance and administration.

The Mission's intent in committing additional funds to the project has been to begin to expand beyond the stage of a pilot project. To measure the potential expansion with an addition of \$7.75 million, the cost and income data from the first three years of the program were used to project cash flows for the next decade. The cash flow analysis showed that the program was facing a serious cash shortfall, and without continued USAID support, the Foundation would have had to stop buying land and find other funds to meet its deficit.

The original design contemplated a grant to the Penny Foundation of \$4 million. With USAID grants of \$2 million in 1988 and 1989 (and no funding after that time), the program would only have been able to purchase 890 hectares per year if it were to remain solvent. Although the new grant would have been twice the size of the previous grants, the Foundation could not have bought as much land because half of the new money would have had to be used to cover the costs of credit and technical assistance the farms already purchased. If USAID had insisted that the Foundation continue to use the new grant with the same proportions going to land purchase and other program activities as in the past, the program would merely have dug a deeper financial hole, and USAID would have had to continue subsidizing the program.

Given this scenario, the design problem became that of analyzing the amount of money needed. To decide this amount, the conflicting demands of two issues had to be resolved: (1) how to increase the amount of land purchased and resold to the landless and land poor; and, (2) how to establish a viable, permanent program within the Penny Foundation for the on-going purchase and sale of land. Various options and trade-offs within each program activity were considered. Based on financial analysis, an additional grant of \$7.75 million was identified as the amount needed to assure adequate land purchases and the viability of the Penny Foundation.

Land Purchase:

The Penny Foundation purchases land on the open market, seeking land at the best possible price, with the agronomic potential to support families on relatively small parcels of land. Land which is undeveloped or abandoned, with little infrastructure, costs less per hectare than land which is planted in coffee or has irrigation or terracing. Land in the Altiplano suitable for winter vegetables and therefore an immediate income from annual cash crops, is more expensive than land suitable for permanent crops which require several years to produce. With limited funds for land purchase, buying more expensive land means that fewer hectares are purchased and therefore fewer campesinos can enter the program as beneficiaries. On the other hand, the more expensive land eases the Foundation cash flow problem because the long-term credit is replaced by production credit which circulates annually.

The Foundation policy of evaluating each farm according to its individual merit for the program has achieved a defensible balance over the past three years between seasonal and permanent crops, land with and without infrastructure, and farms located in various ethnic, geographic and political regions of the country. The design for the next five years of the Project assumes that this same balance will be maintained. The cash flow projections used to reconcile the issues of program expansion and institutional viability assume that the Foundation will buy land at an average price of \$900 per hectare in 1988, with an annual six percent increase after that. This figure, which takes into account escalating land prices, was derived in consultation with the Foundation by roughly balancing the average negotiated price paid per hectare over the past three years with an estimate of the average current asking price. If this estimate is too low, the Foundation will purchase less land.

A second possibility for easing the cash flow problem would be for the Foundation to pay cash for the entire price of the land. Program personnel also argue that with cash they would have less difficulty negotiating sales and could get a lower price for the land. The trade-off would be less land purchased in the short run.

The budget for the project extension assumes that the current practice of covering approximately 50 percent of the purchase price with 5-year guarantee certificates will continue. It appears to have been workable within the current market, and it nearly doubles the number of hectares purchased with dollars donated. The presence of the guarantee certificates as counterpart funds also insures that the Penny Foundation program remains a Guatemalan rather than a USAID land purchase/sale program.

Land Sale:

The sale process begins with the simultaneous selection of the beneficiaries and the surveying and parceling of the farms. The cost of the parcel for the beneficiary is the price paid for the farm plus the cost of surveying and parceling divided by the number of parcels. The project design team examined two potential changes in this activity which could affect the cash flow problem of the program. First, the program could choose to sell parcels to more affluent farmers who could absorb some of the initial costs of developing the farms and reduce the need for subsistence credit. This option is not available under this project. The program was developed by the Penny Foundation to serve landless campesinos and the beneficiary characteristics are defined by the Foundation. These characteristics are consistent with the Mission's targets. A central focus of the project's research component is to investigate other mechanisms or programs to increase the access of small- and medium- size farmers and landowners to the land market.

The second possibility would be to charge the beneficiaries more for their parcels. The beneficiary and farm income projections suggest that, even though they have nothing now, the buyers will be getting so much income that over the long run they can easily absorb more of the cost of the program and still enjoy a middle class standard of living. This option is rejected, at least for the present, because up to this point the program has only income projections rather than actual farm earnings. In addition, in a new, pilot project of this sort even the appearance that the Foundation is profiting from land sales could be detrimental to all future land market programs.

Farm Management: Technical Assistance and Credit

The most expensive aspect of the Penny Foundation program is the investment in the land after purchase. Through 1991, the amount spent on production credit and agricultural technical assistance is estimated at \$4.20 for each \$1.00 paid for land. The Penny Foundation directly manages and supplies all technical assistance and credit for the beneficiaries, in order, they argue, to avoid political manipulation of their program and to insure the timeliness of these essential inputs.

Production and investment credit will account for almost 50 percent of the new USAID grant to the Penny Foundation land program. The increase from 46 percent of the first \$3 million is due to both an absolute and proportional increase in the amount of land under production. In looking at the trade-offs involved in the funding of this program, three types of questions were examined for credit and technical assistance: (1) Are there alternative and perhaps less costly sources for these services? (2) Is the amount of credit and technical assistance justified? and, (3) What are the trade-offs available in terms of credit and technical assistance costs and the amount and types of land purchased?

The financial analysis for the Project Paper argues that there are not viable alternative sources of production credit, particularly long-term credit, available for the program presently. The question of alternative sources of technical assistance is discussed briefly in the institutional analysis. By hiring the technicians and agronomists directly, the Foundation is assured that high quality, timely technical assistance will reach the beneficiaries.

The control of technical assistance and credit services by the Foundation itself is also justified by the fact that it is a pilot project, with the purpose of demonstrating the feasibility of the land market approach to the land problem. To some extent, this argument also applies in examining the amount of technical assistance and credit. Further, the projected incomes for the beneficiaries and production for the farms show that the level of inputs are economically justified. The ratio of land costs to credit and technical assistance costs is consistent with experience elsewhere as well. At the same time, the appropriateness of the level of services should be monitored as a part of the project evaluation. The lesson from the Penny Foundation program to date seems to be that the costs of credit and technical assistance may be crucial constraints to a successful commercial land market program. On the other hand, excessive credit and technical assistance expenditures could have a conservative influence on the program by severely limiting its potential size and impact.

The third major issue is the potential trade-off between the amount of credit and technical assistance and the amount and types of land purchased and their effect on cash balances. On the most general level, since credit and technical assistance costs represent capital investment in the land, the ratio of these costs relative to land costs could be reduced by purchasing land at a higher price with more infrastructure and/or permanent crops already in place. As a result, less land could be purchased for fewer beneficiaries. Besides the fact that reducing credit would force a reduction rather than expansion of the program, returns on the principal and interest from the production credit also are a source of cash for the program.

In project design, credit and technical assistance costs established over the past three years were used to indicate the amount needed for the future. A five percent increase in the beneficiary's cost of production is built into the model, as well as a gradual increase in the proportion of land requiring credit to account for more land being brought into production.

Using these assumptions, and cost and income data from the first three years of the program, a model was developed to project forward the cash flows for the next decade under several scenarios of USAID funding (see Financial Analysis). The scenario selected, a grant of \$7.75 million to the Penny Foundation over the next five years, will allow the Foundation to continue purchasing land at a rate comparable to the past three years, to continue to supply the same levels of credit and technical assistance, and to remain financially solvent. At the end of five years, the program will be in a position to continue to function without further grants.

External Financing as a Source of Project Funds:

Generating cash through the sale of mortgage bonds was originally considered as a possible method of supporting the program. Close analysis indicated that mortgage bond financing was not appropriate for the Penny Foundation, even though the Foundation probably could have sold the bonds to local banks, insurance companies and pension funds.

The Foundation already has access to and use of loans for its operations, raising the question of why it should seek bond debt anyway. Moreover, if needed for short-term lending, the Foundation is confident it could obtain a simple bank loan without the expense of underwriting bonds. The Foundation's debt strategy is not constrained by an absence of loans, but rather the terms.

Creating and promoting a long-term lending market to better meet land lending needs is not a function of the Penny Foundation. The objective of creating a viable, independent program would only be hindered by burdening the program with additional debt in the form of mortgage bonds (see Financial Analysis). A long-term lending market will require banking policy changes and legislation to determine mortgage and collateral requirements. The project's research component will provide an in-depth analysis of alternative external land-financing mechanisms.

Project Research Component:

The second component of the project is the research component. A detailed description of this component, of the implementation procedures and of its technical feasibility is found in Annex II, Exhibit H.

D. Social Soundness Analysis

A social soundness analysis of the Project was carried out and appears in ANNEX II.G. The following are some of the major findings of that analysis.

Land is important to both Indians and Ladinos. Indians form a separate ethnic group characterized by speaking Mayan languages and a cultural inventory tied to an indigenous prehispanic past. Land is extremely important in Indian culture, regardless of the subethnic group or linguistic affiliation. Most ethnographies of Indian culture make some mention of the predominant place land has in the Indian mind. One example is the following (John Gillin, The Culture of Security in San Carlos, Middle American Research Inst., New Orleans, 1951):

In fact, it is not too much to say that the average Indian loves the land and feels himself less than a man if he does not have some available on which to work. (p. 12)

Ladinos trace their sociocultural heritage more to the Spanish conquerors, speak Spanish, and have a more or less Occidental cultural outlook. An area of conflict in Ladino-Indian relationships is land. The Ladino has a generally Occidental approach to land as a source of income or investment, as opposed to the Indian mystique about working land personally. The Ladino sees land, tenants, and laborers as a means of social and political as well as economic control and power. The Indian cannot see why the Ladino will not allow him to work land which the Ladino is not using, for example - an important element in recent conflicts. Both Indians and Ladinos are willing to emigrate permanently from their previous homes to acquire land, an important aspect in the success of the Commercial Land Market project.

The target group population in this Project is made up of the mass of land poor subsistence farmers and landless agriculture laborers who make up the bulk of the population involved in agriculture today in Guatemala. The land-poor farmers are usually those who have less than four manzanas^{1/} land and who live by supplementing their farm incomes through seasonal migrant labor or through some other non-farm activity. Most of these farmers live in the highlands; Indians in the central and western highlands and Ladinos in the eastern highlands. Their actual holdings are small due to inheritance patterns which tend to apportion part of the father's land to each of his children, particularly but not always the male children.

The young landless agricultural laborers are often the children of the land-poor farmers in the highlands, and they are generally forced to leave their traditional homes to find a means of subsistence elsewhere. This solution is a traditional one, since particularly the Indians from the highlands have been supplementing their farm incomes with migrant farm labor for over a century. The problem is that the population seeking work on the large farms far exceeds the demand for permanent employment. There is usually enough work for all during the coffee harvest, but for at least six months out of the year, the large farms simply cannot absorb large numbers of unskilled farm laborers.

The Penny Foundation program has the advantage of being more or less acceptable to the large land owners. It is not "land reform," since land reform implies the forced expropriation of farms. But if farm land is freely sold and purchased, no owner can justifiably complain. Another advantage is that the land parcels are sold, not given, to the beneficiaries, which is also a satisfactory action in the eyes of the potential opposition, the large farm owners.

^{1/} One manzana is equal to 7/10 of a hectare.

For the beneficiaries, the program is also highly satisfactory. In the first place, the beneficiaries become owners of ample parcels of land, which is for them the goal and dream of a lifetime. The land must be paid for, but the farm plans and technical assistance are such that the land will eventually be so productive as to make paying off the parcel relatively fast and easy.

They receive the credit they need for agricultural production, and the Penny Foundation even provides a "safety net" of subsistence cash for work on their own parcels to tide them over until the farm begins producing. They are dependent on the Foundation, but the benefits of this association are such that this dependence and the paternal role of the Foundation do not pose barriers to their acceptance of the program.

The beneficiaries usually possess few resources when they enter the program. Those acquiring land in the export vegetable zone usually have some land, a few savings, and a more entrepreneurial outlook, while those acquiring land in the predominantly coffee zones have no land or savings and are more salary oriented. The vegetable group usually can make its down payment, and the nature of vegetable farming is such that regular payments on the land can be made immediately. The others may have more difficulty paying the down payment and may need to postpone payments until their crops begin to provide income. Another difference between the two groups is that the vegetable farmer group is more likely to have had experience with agricultural production credit than the coffee group.

The beneficiary profile states that an ideal participant in the program would be a married farmer 35-40 years old with 3-4 children, who has no other profession but farming, who derives at least 75% of his income from farming, who has 4 manzanas or less of his own land, and who has no outstanding debts. In addition, the individual should be willing to live on this new parcel of land and be predisposed to cash crop diversification.

This program does not favor the participation of women as primary beneficiaries. In Guatemala, both culturally and socially, men are the principal agriculturalists and nearly all small farmers, the target group for the program, are men. Two additional important points should be considered, however. First, the selection criteria do not exclude women, although their capacity to run a farm is subjected to much closer scrutiny than that of other applicants. Second, while most of the primary beneficiaries are men, the program is intended to serve household units, families which include women. The most important impact of the project on women is in this context.

The selection process begins with a promotion phase, which consists of establishing the initial contacts with potential beneficiaries, followed by a socioeconomic study in which the potential beneficiaries fill out a questionnaire on number of family members, educational level, property owned, annual income, business activities, indebtedness, previous participation in community improvement, and possible plans for the land parcel the beneficiary might receive. The agronomist, the technician and the potential beneficiaries have much more more contact during this period, during which the technical personnel attempt to confirm the validity of the information provided by the potential beneficiaries.

At the same time, there are a number of activities having to do with the preparation of the farm for sale to the beneficiaries, primarily involving preparation of the land parcels in terms of location, type of land, previous crops, and so on, which often take a couple of months to complete and which must be done before the land parcels can be turned over to the beneficiaries.

The next phase is a trial period in which Foundation personnel work exclusively with the candidates selected to participate in the program in activities oriented toward improving the farm infrastructure. But this phase is just as important in establishing the capabilities of the future beneficiaries as regards their work and how they relate to the other beneficiaries, as well as allowing for the future beneficiary to retire from the program at this point if he wishes. Those who leave the program are replaced by the next individual on the list of potential candidates. A preselected candidate may be deselected at this point by the extensionist if the candidate show signs of not fitting into the program.

One of the problems inherent in the Penny Foundation program is how to make services available for the new "town" of beneficiaries which is created when large farms are purchased to be divided among substantial numbers of beneficiaries. The Foundation program, in cases like this, requires what might almost be called an urban planning component to deal with the needs for roads, bridges, potable water, health services, schools, and other services. The Penny Foundation has taken steps toward meeting these needs in the spirit of integrated rural development, including providing teachers, planning for medical services, and adapting an earlier Penny Foundation housing program for use in this project. The Penny Foundation assists in the formation of a Directiva on each farm to help plan and coordinate these services. The Directiva consists of seven beneficiaries and meets every two weeks (See Annex II/G).

This program is an excellent one from a sociocultural point of view. During the pilot stage it was received with enthusiasm by the beneficiaries and indifference by potential opposition. It is carefully monitored through the technicians and agronomists; non-agricultural problems are being dealt with reasonably; the selection process is sound; and peripheral questions like geographical, ethnic, and agricultural zones are taken into account. This project has shown itself to be socially and culturally feasible in the context of Guatemala. There appear to be no obstacles, whether among the projected beneficiaries or in relation to other social, economic, or political groups, which would seem to impede the smooth carrying out of the project as planned.

The significance of the Penny Foundation program lies in part in its success as a pilot project which can be replicated by other organizations. The Project research component will concentrate on identifying organizations to manage additional land financing programs. The social considerations which emphasize the importance of this component are detailed in the Social Soundness Analysis.

V. IMPLEMENTATION ARRANGEMENTS

A. Administrative Arrangements

The grant will be obligated by a cooperative agreement with the Penny Foundation. The cooperative grant agreement will replace the operational program grant for the Pilot Commercial Land Markets Program - Phase II signed on August 30, 1985 and amended on March 3, 1986, and July 18, 1986.

A cooperative agreement has been chosen as the grant instrument since it will allow for greater involvement of USAID in Project management. USAID, for instance, may want to influence the direction of the Project because of findings from the on-going monitoring or from the Research Component. A cooperative agreement will allow USAID/Guatemala the flexibility to substantially involve itself in the project if the need arises.

The Project Liaison Officer in ORD/USAID/Guatemala will be responsible for periodic review of budget allocations and disbursements. The Project Liaison Officer will be attentive to Project developments and propose modifications in budget allocations if necessary.

The Penny Foundation is expected to maintain the General Manager as the Project's counterpart coordinator.

B. Implementation Plan

Disbursement of the additional \$8.5 million in grant funds is scheduled over a period of five years. This will extend the Project Assistance Completion Date until August 30, 1992, giving the Project a seven year life from the date of initial obligation.

A schedule of major events follows:

<u>ACTIONS</u>	<u>DATE</u>
Signing of Cooperative Agreement	7/87
Penny Foundation submits implementation plan	8/87
PIO/T for Research Component	8/87
Project Liaison Officer hired	8/87
PIO/C for Computer Equipment	9/87
Penny Foundation meets Condition Precedent	9/87
Systems Control Audit	12/87
TA for financial reporting	1/88
Overview report on Registry Operation	6/88
Baseline Survey Completed	3/88
Identification of Alternative Organizations Study Begins	3/88
Rural Employment and Income Studies Begins	5/88

Financing & Land Bank Seminar I	6/88
Financing & Land Bank Feasibility Study Begins	6/88
Financing & Land Bank Seminar II and Study End	9/89
Regional Offices Opened	10/88
Phase II Registry Study begins	1/89
Phase II Registry Study Recommendations	6/89
Motorcycle Purchases	8/89
Follow-up to Baseline Survey Ends	3/90
Final Survey Ends	6/92
Alternative Organization Studies End	6/92
Rural Employment and Income Studies End	6/92

C. Disbursement Procedures

A variety of standard A.I.D. disbursement procedures will be employed. A.I.D. direct reimbursement will be normal under the Project for most of the grant-funded items. In addition, direct letters of commitment will be utilized for procurement of commodities requiring foreign exchange.

The following table is an illustrative example of the expected method of implementation and expected method of financing:

Methods of Implementation and Financing
(Illustrative example)

Method of Implementation	Method of Financing	Approximate Amount
Land purchase - CP	Direct Reimbursement	\$ 2,520
Salaries - CP	Direct Reimbursement	875
Vehicles - CP&PIO/C	Direct Payment Letter of Commitment	17
Travel Allotments - CP	Direct Reimbursement	120
Credit - CP	Direct reimbursement	4,338
Project Liaison Officer - PIO/T	Direct Payment	200
Rent - CP	Direct Reimbursement	28
Equipment & Misc. - CP	Direct Reimbursement	2
System Audit - PSC	Direct Payment	5
Computer Equipment - PA	Direct Letter of Commitment	18
Computer/Financial T.A.-PSC	Direct Payment	10
Research - PSC	Direct Payment	608
Traditional Programs - CP	Direct Reimbursement	50
		<u>8,791</u>
Contingencies and Inflation		1,209
Total		\$ <u>10,000</u>
		=====

Code

CP - Counterpart Procedure
 PIO/C - Project Implementation Order/Commodity
 PIO/T - Project Implementation Order/Technical Assistance
 PSC - Personal Service Contract
 PA - Procurement Agent

D. Procurement Plan

The Penny Foundation will continue to be responsible for the purchase of land and local small value equipment financed under the Penny Foundation Component. Their procurement procedures will be used. USAID will procure the grant-funded motorcycles for Foundation technicians under a blanket origin waiver approved by the Administrator for one wheel drive motorcycles of 125 cubic centimeter displacement or less. USAID will also procure the recommended computer equipment and software. USAID can initiate this procurement without SER/IRM clearance as the life of Project funding for computer equipment is under \$100,000. It is recommended that USAID use an 8-A firm to procure, insure and ship the motorcycles and computer system. The project also calls for research which may be funded in collaboration with a regional project. The research entity will make an effort to identify competent, minority, disadvantaged firms to do sub-contract work. The research entity will consult the Office of Small and Disadvantaged Business Utilization for a list of potential contractors. The specifications for the computer equipment and software were drafted during Project design and appear as part of the Information System Analysis of the Penny Foundation (see File Attachment).

USAID will also arrange for the technical assistance planned in the Research Component of the Project. The contracting may be done in collaboration with LAC/DR/RD Tenure Security and Land Market Research Project.

E. Evaluation and Monitoring Plan

1. Monitoring

The AID Project Liaison Officer will work closely with the Penny Foundation to assure that Project implementation plans are carried out. The Mission will hold quarterly Project review meetings with more frequent meetings if necessary. The Mission Director or his designee will chair the meetings. Representatives from the Rural Development Support Office and the Controller's Office will participate. The Project liaison officer will be responsible for frequent field trips to confirm the information in Penny Foundation reports and to identify potential problems. The Rural Development and Project Development and Support Offices will draft and review the semi-annual Project Progress Report which will be sent to AID/W.

The Penny Foundation will submit quarterly progress reports to USAID, one week after the close of the reporting quarter, using a form supplied by USAID. The Foundation also will submit, as a part of the progress reports, quarterly copies of the internal management reports on financial planning and cash flow analyses specified in the Financial and Economic Analysis. The USAID Project liaison officer and financial analysts in USAID/Guatemala's Controller Office will review these documents to ensure that the program avoids cash deficits.

USAID is requiring that the Foundation revise the form used to evaluate property offered for sale. The revised form should build on that currently used by the Foundation but should be standardized so that data are entered on a computerized data base file. For those farms which were not purchased, the file will state the reason(s) no purchase was made, the point at which the decision was made or the deal broke down, and the individual(s) involved in the decision. These data will be maintained on a current file at the Foundation and the Project liaison officer will be responsible for reviewing them at least semi-annually for evidence of partiality or fraud in the use of funds for land purchase. The design team recommends that the Project liaison officer or a consultant contracted for this purpose, visit annually a sample of the farms rejected by the Foundation, as an independent assessment of adherence to criteria.

The Foundation currently submits its entire program to an annual external audit. This practice will continue and the Land Purchase/Sale Program will be included in the audit. The audit will include a special report on the financial status of the Cooperative Agreement, including AID and counterpart contributions, the budget status (income, expenditures, figures budgeted, expended and pipeline) and an opinion on the Grantee's compliance with the conditions and covenants contained in the Cooperative Agreement. The audit will also make an appropriate allowance for doubtful accounts for the production and land credit. In the early years of the Project, this allowance will be set at five percent of the production credit receivable and one-half a percent of the outstanding receivable for land. This allowance will be adjusted up or down towards the end of the Project based on the Foundation's uncollectible experience.

The analysis of the Foundation Information Systems undertaken as a part of the project design indicates that the accounting system should be evaluated periodically to determine if the financial control and informational needs of the program are being met. A consultant should be contracted at the end of 1988 to make this assessment, to decide if changes are needed in the financial accounting package and to recommend if further assessments are advisable. A fund of \$100,000 is budgeted for technical assistance for the Penny Foundation in institutional and financial management.

Monitoring of the research and evaluation component of the project will be specified in the PIO/Ts prepared for the various studies.

2. Evaluation

The baseline survey and on-going evaluation of the Penny Foundation program are a separate component of this project. The research component is justified not only as an evaluation of the Project but also to document and evaluate the land market approach to improving small farmer access to land.

The research design, outlined in Annex H, provides for a baseline survey at the initiation of the current project of a sample of Penny Foundation farms and beneficiaries with follow-up surveys in years three and five together with case studies of selected farm units, concentrated in alternate years, and an on-going monitoring of institutional changes in the Penny Foundation. A sample of campesinos from other organizations or communities in the Penny Foundation regions will be surveyed as a control group for the Penny Foundation survey. This design will allow both cross sectional and longitudinal analyses. The program managers at the Penny Foundation have expressed interest in cooperating with and participating in this on-going evaluation. The Foundation's computer databases on the beneficiaries and the farms are being prepared, in part, with the intention of having them available for these studies.

The baseline and follow-up surveys will evaluate the effect of the program on beneficiaries in terms of income and standard of living and on the farms in terms of production and productivity. In addition, an important objective of the project is to provide the means for the Penny Foundation project to become a self-sustaining, viable program which can continue to purchase and sell land after USAID funding ends in 1992. The evaluation will examine progress toward this goal in terms of the organizational, financial, and information management aspects of the program. This institutional analysis will occur at the same time as the surveys so that the Mission can provide technical assistance if needed. The specific issues of concern for the three levels of analysis in the evaluation (beneficiary, farm, organizational) are discussed in Annex H.

The baseline survey and on-going evaluation could be carried out in collaboration with the LAC/DR/RD Regional Project (598-0638), Tenure Security and Land Market Research. Collaboration with this project will not only assure access to the expertise and financial resources of the regional effort but also will assure comparability to land-related research elsewhere in the region. This comparability will allow a more general evaluation of the land market approach to improving land access. The regional project also will be a tool for publicizing the Guatemala program among other USAID missions.

F. Conditions, Covenants and Negotiating Status

The original Project Authorization and amended authorization pertained to the \$2 million of Phase II of the Project. The amended authorization for an additional \$8.5 million will include a condition precedent and covenant as described below. The covenant will replace Section 5.c. of the original Project Authorization dated August 30, 1985.

1. Conditions Precedent

Except as AID may otherwise agree in writing:

Prior to any disbursement of Project funds in excess of \$2 million under the Penny Foundation component, or the issuance of any

commitment documents under the Agreement with the Penny Foundation, the Penny Foundation will furnish in form and substance satisfactory to AID: a) a detailed description of its farm purchase evaluation process, and a standard format it will use to evaluate farm offers indicating the evaluation criteria used and those responsible for approving or rejecting an offer, and b) a time-phased staffing plan for all Penny Foundation offices involved in the Project, indicating those assigned to project work, those being hired, those to be hired within this year and possible future staffing needs.

2. Covenants

The Penny Foundation shall covenant that, unless A.I.D otherwise agrees in writing, it will: demonstrate a mutual concern for broad-based local membership by initiating and maintaining fund-raising activities and membership drives in good faith;

Utilize the reflows of A.I.D money from the land sales and credit recuperations for the land purchase program in such a way as to maintain or increase the level of land purchases and beneficiary sales for at least five years after the Project Assistance Completion Date.

3. Negotiating Status

The Project design for an expanded Commercial Land Market Project has been jointly developed with members of the Penny Foundation. The Foundation and the Project Design Committee agree on all aspects of the Project except for one. The Foundation would prefer that AID funds be re-allocated to cover vehicle maintenance and gasoline expenses of the land purchase program. The estimated cost would be \$175,000 for the life of the Project. The Foundation would prefer to increase its counterpart contribution for production credit, reduce the AID allocation by an equivalent amount and transfer this to a classification for vehicle maintenance and gasoline. Although the amount is a small percentage of the Project total, the Project Design Committee opposed AID payment for vehicle maintenance and gasoline as the paperwork and monitoring involved for the numerous small value transactions is burdensome on USAID project and staff offices. The Project Design Committee assured the Penny Foundation that the issue was still open for negotiation.

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5C(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable to: (A) FAA funds generally; (b)(1) Development Assistance funds only; or (b)(2) the Economic Support Fund only.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FY 1987 Continuing Resolution Sec. 526. Has the President certified to the Congress that the government of the recipient country is failing to take adequate measures to prevent narcotic drugs or other controlled substances which are cultivated, produced or processed illicitly, in whole or in part, in such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully?

The President has not so determined. Guatemala does take adequate steps to prevent narcotics traffic.

2. FAA Sec. 481(h). (This provision applies to assistance of any kind provided by grant, sale, loan, lease, credit, guaranty, or insurance, except assistance from the Child Survival Fund or relating to international narcotics control, disaster and refugee relief, or the provision

The President has not so determined.

of food or medicine.) If the recipient is a "major illicit drug producing country" (defined as a country producing during a fiscal year at least five metric tones of opium or 500 metric tons of coca or marijuana) or a "major drug-transit country" (defined as a country that is a significant direct source of illicit drugs significantly affecting the United States, through which such drugs are transported, or through which significant sums of drug-related profits are laundered with the knowledge or complicity of the government), has the President in the March 1 Internal Narcotic Control Strategy Report (INSCR) determined and certified to the Congress (without Congressional enactment, within 30 days of continuous session, of a resolution disapproving such a certification), or has the President determined and certified to the Congress on any other date (with enactment by Congress of a resolution approving such certification), that (a) during the previous year the country has cooperated fully with the United States or taken adequate steps on its own to prevent illicit drugs produced or processed in

or transported through such country from being transported into the United States, and to prevent and punish drug profit laundering in the country, or that (b) the vital national interests of the United States require the provision of such assistance?

3. Drug Act Sec. 2013. (This section applies to the same categories of assistance subject to the restrictions in FAA Sec. 481(h), above.) If recipient country is a "major illicit drug producing country" or "major drug-transit country" (as defined for the purpose of FAA Sec 481(h), has the President submitted a report to Congress listing such country as one (a) which, as a matter of government policy, encourages or facilitates the production or distribution of illicit drugs; (b) in which any senior official of the government engages in, encourages, or facilitates the production or distribution of illegal drugs; (c) in which any member of a U.S. Government agency has suffered or been threatened with violence inflicted by or with the complicity of any government officer; or (d)

The President has not submitted a report to Congress listing such country.

which fails to provide reasonable cooperative to lawful activities of U.S. drug enforcement agents, unless the President has provided the required certification to Congress pertaining to U.S. national interests and the drug control and criminal prosecution efforts of that country?

4. FAA Sec. 620(c). If assistance is to a government, is the Government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government? No

5. FAA Sec. 620(e)(1). If assistance is to a government, has it (including any government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities? N/A

52

6. FAA Secs. 620(a), 620(f), 620D; FY 1987 Continuing Resolution Secs. 512, 560. Is recipient country a Communist country? If so, has the President determined that assistance to the country is important to the national interests of the United States? Will assistance be provided to Angola, Cambodia, Cuba, Iraq, Syria, Vietnam, Libya, or South Yemen? Will assistance be provided to Afghanistan without a certification? No
7. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, damage or destruction by mob action of U.S. property? No
8. FAA Sec. 620(l). Has the country failed to enter into an investment guaranty agreement with OPIC? No
9. FAA Sec. 620(o); Fishermen's Protective Act of 1967 (as amended) Sec. 5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing vessel because of fishing activities in international waters? (b) If so, has any deduction required by the Fishermen's Protective Act been made? N/A

10. FAA Sec. 620(g), FY 1987
Continuing Resolution Sec.
518. (a) Has the
government of the
recipient country been in
default for more than six
months on interest or
principal of any loan to
the country under the
FAA? (b) has the country
been in default for more
than one year on interest
or principal on any U.S.
loan under a program for
which the FY 1976
Continuing Resolution
appropriates funds? N/A
11. FAA Sec. 620(s). If N/A
contemplated assistance is
development loan or from
Economic Support Fund, has
the Administrator taken
into account the percent
of the country's budget
and amount of the
country's foreign exchange
or other resources spent
on military equipment?
(Reference may be made to
the annual "Taking Into
Consideration" memo: "Yes,
taken into account by the
Administrator at time of
approval of Agency OYB."
This approval by the
Administrator of the
Operational Year Budget
can be the basis for an
affirmative answer during
the fiscal year unless
significant changes in
circumstances occur.)
12. FAA Sec. 620(t). Has the No
country severed diplomatic
relations with the United

States? If so, have relations been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

13. FAA Sec. 620(u). What is the payment status of the country's U.N. obligations? If the country is in arrears, where such arrearages taken into account by the A.I.D. Administrator in determining the current A.I.D. Operating Year Budget? (Reference may be made to the Taking into Consideration memo.)

Country is not delinquent.

14. FAA Sec. 620A. Has the President determined that the recipient country grants sanctuary from prosecution to any individual or group which has committed an act of international terrorism or otherwise supports international terrorism?

The President has not so determined.

15. ISDCA of 1985 Sec. 552(b). Has the Secretary of State determined that the country is a high terrorist threat country after the Secretary of Transportation has determined, pursuant to section 1115(e)(2) of the Federal Aviation Act of 1958, that an airport in the country does not maintain and administer effective security measures?

No

65

16. FAA Sec. 666(b). Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA? No
17. FAA Secs. 669, 670. Has the country, after August 3, 1977, delivered to any other country or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards, and without special certification by the President? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.) No
18. FAA Sec. 670. If the country is a non-nuclear weapon state, has it, on or after August 8, 1985, exported (or attempted to export) illegally from the United States any material, equipment, or technology which would contribute significantly to the ability of a country to manufacture a nuclear explosive device? No

96

19. ISDCA of 1981 Sec. 720.
Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. on Sept. 25 and 28, 1981, and failed to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the Taking into Consideration memo.)

Guatemala was not present at the meeting.

20. FY 1987 Continuing Resolution Sec. 528. Has the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States?

No

21. FY 1987 Continuing Resolution Sec. 513. Has the duly elected Head of Government of the country been deposed by military coup or decree?

No

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria

FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized

No determination has been made regarding gross violation of human rights.

51

human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy?

2. Economic Support Fund
Country Criteria

N/A

FAA Sec. 520B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the President found that the country made such significant improvement in its human rights record that furnishing such assistance is in the U.S. national interest?

8117C/8139C

A. GENERAL CRITERIA FOR PROJECT

1. FY 1987 Continuing Resolution Sec. 523; FAA Sec. 634A. Describe how authorization and appropriations committees of Senate and House have been or will be notified concerning the project. A Congressional Notification was submitted to AID/W for transmittal to Congress. No obligation will be made until notification requirements have been met.
2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$500,000. Will there be (a) engineering, financial or other plans necessary to carry out the assistance, and (b) a reasonably firm estimate of the cost to the U.S. of the assistance. A Project Financial Plan, with reasonably firm estimates of the costs to AID, is contained in this Project Paper.
3. FAA Sec. 611(a)(2). If legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance? No legislative action by the Government of Guatemala is required.
4. FAA Sec. 611(b); FY 1987 Continuing Resolution Sec. 501. If project is for water or water-related land resource construction, have benefits and costs been computed to the extent practicable in accordance with the principles, standards, and procedures established pursuant to the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See A.I.D. Handbook 3 for guidelines.) N/A
5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and total U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize th project? N/A

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.
- The Research Component of the Project may be executed as part of a regional Project.
7. FAA Sec. 601(a). Information and conclusions on whether projects will encourage efforts of the country to:
- (a) increase the flow of international trade;
 - (b) foster private initiative and competition;
 - (c) encourage development and use of cooperatives, credit unions and savings and loan associations;
 - (d) discourage monopolistic practices;
 - (e) improve technical efficiency of industry, agriculture and commerce;
 - and (f) strengthen free labor unions.
- (a) Some of the agricultural commodities grown by the Project's beneficiaries will be sold on international markets. (b) The Project transforms farm laborers into farm owners, creating entrepreneurs. (c) The Project does not specifically encourage the development of cooperatives or savings and loans. The beneficiaries, however, will be free to participate with existing cooperatives or create their own. (d) The Project attempts to resolve a land tenure (olipology) problem. Land in Guatemala is unevenly distributed with most of the fertile arable land concentrated in the hands of a small percentage of the rural population. (e) The Project provides technical assistance to assure that the beneficiaries are cultivating farms with the most efficient technology. (f) No effect is anticipated.
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance program (including use of private trade channels and the services of U.S. private enterprise).
- The Research component will probably be contracted out to a US University.

9. FAA Secs. 612(b), 636(h). Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars. The Project counterpart is a non-profit organization which will only use local currency to meet its Project obligations.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release? No
11. FY 1987 Continuing Resolution Sec. 521. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and in such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? No
12. FY 1987 Continuing Resolution Sec. 558. (as interpreted by conference report). If assistance is for agricultural development activities (specifically, any testing or breeding feasibility study, variety improvement or introduction, consultancy, publication, conference, or training), are such activities (a) specifically and principally designed to increase agricultural exports by the host country to a country other than the United States, where the export would lead to direct competition in that third country with exports of a similar commodity grown or produced in the United States, and can the activities reasonably be expected to cause substantial injury to U.S. exporters of a similar agricultural commodity; or (b) in support of research that is intended primarily to benefit U.S. producers? N/A

13. FY 1987 Continuing Resolution Sec. 559. Will the assistance (except for programs in Caribbean Basin Initiative countries under U.S. Tariff Schedule "Section 807," which allows reduced tariffs on articles assembled abroad from U.S.-made components) be used directly to procure feasibility studies, prefeasibility studies, or project profiles of potential investment in, or to assist the establishment of facilities specifically designed for, the manufacture for export to the United States or to third country markets in direct competition with U.S. exports, of textiles, apparel, footwear, handbags, flat goods (such as wallets or coin purses worn on the person), work gloves or leather wearing apparel? No
14. FAA Sec. 118(c). Does the assistance comply with the environmental procedures set forth on A.I.D. Regulation 16? Does the assistance place a high priority on conservation and sustainable management of tropical forests? Specifically, does the assistance, to the fullest extent feasible: (a) stress the importance of conserving and sustainably managing forest resources; (b) support activities which offer employment and income alternatives to those who otherwise would cause destruction and loss of forests, and help countries identify and implement alternatives to colonizing forested areas; (c) support training programs, educational efforts, and the establishment or strengthening of institutions to improve forest management; (d) help end destructive slash-and-burn agriculture by supporting stable and productive
- Yes. An Initial Environmental Examination made a negative determination.
- (a) The Project does not anticipate management of forests.
- (b) Project provides underutilized farm land to the landless, reducing pressure on the landless to slash and burn virgin tropical forests.
- (c) The Project does not anticipate training in forest management.
- (d) Project provides underutilized land to landless laborers, reducing the pressure on the landless to slash

farming practices; (e) help conserve forests which have not yet been degraded. by helping to increase production on lands already cleared or degraded; (f) conserve forested watersheds and rehabilitate those which have been deforested; (g) support training, research, and other actions which lead to sustainable and more environmentally sound practices for timber harvesting, removal, and processing; (h) support research to expanding knowledge of tropical forests and identify alternatives which will prevent forest destruction, loss, or degradation; (i) conserve biological diversity in forest areas by supporting efforts to identify, establish, and maintain a representative network of protected tropical forest ecosystems on a worldwide basis, by making the establishment of protected areas a condition of support for activities involving forest clearance or degradation, and by helping to identify tropical forest ecosystems and species in need of protection and establish and maintain appropriate protected areas; (j) seek to increase the awareness of U.S. government agencies and other donors of the immediate and long-term value of tropical forests; and (k) utilize the resources and abilities of all relevant U.S. government agencies?

and burn virgin tropical forests.
(e) The Project helps to increase production on lands already cleared or degraded.
(f) The Project in some instances plants permanent tree crops on degraded hillsides, improving watershed management.
(g) The Project does not anticipate training or other actions to improve timber harvesting.
(h) The Project does not anticipate tropical forest research.

(i) The Project does not anticipate virgin tropical forest clearance or degradation.

(j) The Project will not increase awareness of long-term value of tropical forests.

(k) N/A

15. FAA Sec. 119(g)(4)-(6). Will the assistance (a) support training and education efforts which improve the capacity of recipient countries to prevent loss of biological diversity; (b) be provided under a long-term agreement in which the recipient country agrees to protect ecosystems or other wildlife habitats; (c) support efforts to identify and

(a) No.

(b) No.

(c) No.

survey ecosystems in recipient countries worthy of protection; or (d) by any direct or indirect means significantly degrade national parks or similar protected areas or introduce exotic plants or animals into such areas?

(d) No.

16. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditures of project funds (either dollars or local currency generated therefrom)?

N/A

17. FY 1987 Continuing Resolution Sec. 532. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution?

No.

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Secs. 102(b), 111, 113, 281(a). Describe extent to which activity will (a) effectively involve the poor in development by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, dispersing investment from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using appropriate U.S. institutions: (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic

(a) The Project will provide the rural poor with access to buy and farm land using the technology most appropriate for the geographic area and crop.

(b) The Project provides the landless with access to land and an opportunity to improve their lives. The Project also encourages democratic community organizations to develop and monitor public services such as schools.

private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote the participation of women in the national economies of developing countries and the improvement of women's status; and (e) utilize and encourage regional cooperation by developing countries.

(c) The Project is a self-help effort. The beneficiaries raise their standard of living through their own hard work.

(d) Women benefit from the Project as members of families. The Project also has a couple of instances of single women with families owning and operating farm plots.

(e) The Project's Research Component will be carried out in collaboration with a Latin America Regional Project.

- b. FAA Secs. 103, 103A, 104, 105, 106, 120-21. Does the project fit the criteria for the source of funds (functional account) being used?
- Yes.
- c. FAA Sec. 107. Is emphasis placed on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?
- Project emphasizes the technology appropriate for the geographic terrain and crop.
- d. FAA Secs. 110, 124(d). Will the recipient country provide at least 25 percent of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed" country)?
- Counterpart organization will provide 25 percent of the total Project cost.
- e. FAA Sec. 128(b). If the activity attempts to increase the institutional capabilities of private organizations or the government of the country, or if it attempts to stimulate scientific and technological research, has it been designed and will it be monitored to ensure that the ultimate beneficiaries are the poor majority?
- The Project is designed to select beneficiaries from the poor majority.

- f. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government. The Project recognizes the need to resolve land tenure problems.
- g. FY 1987 Continuing Resolution Sec. 540. Are any of the funds to be used for the performance of abortions as a method of family planning or to motivate or coerce any person to practice abortions? No.
- Are any of the funds to be used to pay for the performance of involuntary sterilization as a method of family planning or to coerce or provide any financial incentive to any person to undergo sterilizations?
- Are any of the funds to be used to pay for any biomedical research which relates, in whole or in part, to methods of, or the performance of, abortions or involuntary sterilization as a means of family planning?
- h. FY 1987 Continuing Resolution. Is the assistance being made available to any organization or program which has been determined to support or participate in the management of a program of coercive abortion or involuntary sterilization? No.
- If assistance is from the population functional account, are any of the funds to be made available to voluntary family planning projects which do not offer, either directly or through referral to or information about access to, a broad range of family planning methods and services?

- i. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? Yes.
- j. FY 1987 Continuing Resolution. How much of the funds will be available only for activities of economically and socially disadvantaged enterprises, historically black colleges and universities, and private and voluntary organizations which are controlled by individuals who are black Americans, Hispanic Americans, or Native Americans, or who are economically or socially disadvantaged (including women)? About \$35,000 will be available for procurement. The only other foreign exchange expenditures will probably be contracted through social research organizations in the U.S.
- k. FAA Sec. 118(c)(13). If the assistance will support a program or project significantly affecting tropical forests (including projects involving the planting of exotic plant species), will the program or project (a) be based upon careful analysis of the alternatives available to achieve the best sustainable use of the land, and (b) take full account of the environmental impacts of the proposed activities on biological diversity? N/A
- l. FAA Sec. 118(c)(14). Will assistance be used for (a) the procurement or use of logging equipment, unless an environmental assessment indicates that all timber harvesting operations involved will be conducted in an environmentally sound manner and that the proposed activity will produce positive economic benefits and sustainable forest management systems; or (b) actions which significantly degrade national parks or similar protected areas which contain tropical forests, or introduce exotic plants or animals into such areas? (a) No.
(b) No.

- m. FAA Sec. 118(c)(15). Will assistance be used for (a) activities which would result in the conversion of forest lands to the hearing of livestock; (b) the construction, upgrading, or maintenance of roads (including temporary haul roads for logging or other extractive industries) which pass through relatively undergraded forests lands; (c) the colonization of forest lands; or (d) the construction of dams or other water control structures which flood relatively undergraded forest lands, unless with respect to each such activity an environmental assessment indicates that the activity will contribute significantly and directly to improving the livelihood of the rural poor and will be conducted in an environmentally sound manner which supports sustainable development?
- (a) No.
- (b) No.
- (c) No.
- (d) No.

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68

LOG FRAMEWORK MATRIX
COMMERCIAL LAND PURCHASE PROJECT

<u>Narrative Summary</u>	<u>Objectively Verifiable Indicators</u>	<u>Means of verification</u>	<u>Assumptions</u>
GOAL: Greater participation by Guatemala's rural poor in sustained, real economic growth	3.5 percent real annual growth per annum for Guatemala 2.5 percent decrease in rural poverty	IBRD Country Reports National Census National Bank Reports Mission Rural Income Action Plan Program records	Political environment remains open and democratic GOG will maintain policies which promote exports and private investment GOG and other donor funding available Adequate land availability
SUBGOAL: To increase the cumulative value of agriculture through a program of better land utilization	\$322.7 million of real value-added in Agriculture by 1989	Title statistics	
PURPOSE: To establish and expand the Penny Foundation's voluntary land purchase/sale program as a self-supporting activity capable of increasing agricultural productivity and incomes of the rural poor, and to identify and promote additional instruments to increase production and reduce pressure on agricultural land.	50% increase in production of underutilized land bought and sold by the Penny Foundation	Baseline data & evaluation	
	Positive cash flow for Penny Foundation starting in 1992 from annual purchases of 1,350 ha. and sale of 360 farm parcels to beneficiary families	Audited financial statements Quarterly Progress Reports Financial records	Land prices not subject to hyper inflation and/or speculation
	Net average farm incomes of \$3200 per annum in constant 1977 currency in the third year from date of purchase for the rural poor participating in the Penny Foundation program	Statistical survey Project evaluation Coop records Mortgage and credit payment records	Adequate pricing policies and prices for small farmer products
	Methods identified to expedite processing of parcels.	Reports submitted to AID	Preliminary hypothesis that other viable organizations/alternatives proves true
	Needs, goals, feasibility and method identified for reform of registry.		
	Institutions and/or financial mechanisms identified to establish long term financing for small and medium farm purchases and design of a follow-on project		
	3 additional organizations identified and contacted to manage programs like the Penny Foundation		
	Policy and project implications of identified from studies of at least 3 additional land-related problems		

Clearly defined GOG land policy and program exists

Governmental policy statement and program funding

Empirical study will lead to rational decision making

Policy recommendations made regarding real estate registration and titling

Presidential directives
Ministry directives
Legislation

OUTPUTS:

- | | |
|---------------------------------|---------------------------------------|
| 1. Penny Foundation | |
| Farm Extension Services | 48 technicians, 12 agronomists - 1992 |
| Credit | \$4,370,000 |
| Land | 9,000 Has. purchased and diversified |
| Penny Foundation Staff | 11 staff - 1992 |
| Vehicles - Motorcycles | 35 |
| Office equipment | \$2,000 small value office equipment |
| Computer equipment and software | 1 system |
| 2. Research | |
| Penny Foundation Study | 1 |
| Land Registry Study | 1 |
| External Financing Study | 1 |
| Alternatives Study | 1 |

Audited financial statements
Quarterly project progress reports
Inputs are available in a timely fashion

INPUTS:

	(US\$000)	
	PRIOR	
	OBL	AMND
1. Penny Foundation		
Land Purchase	900	1,620
Farm Management	280	442
Credit	450	3,838
Administration	170	933
Contingencies	150	639
Inflation	50	228
2. Research		
Penny Foundation Study		285
Registry Study		80
External Financing		92
Alternatives & Addns		151
Contingencies		71
Inflation		71
Total	\$2,000	\$8,500
	=====	=====

AID disbursement records
Penny Foundation Cash Receipts
and Disbursement Journals

10

COMMERCIAL LAND MARKETS DISBURSEMENT SCHEDULE BY YEARS (U.S. \$000) PENNY FOUNDATION COMPONENT	19 87		19 88		19 89		19 90		19 91		19 92		ALL YEARALL YEAR		TOTAL
	A.I.D.	P.F.	A.I.D.	P.F.											
LAND PURCHASE/SALE															
CASH PURCHASE OF LAND	404		608		644		632		232				2,520		2,520
CERTIFICATE PRINCIPAL PAYME						322		451		542		585		1,900	1,900
CERTIFICATE INTEREST PAYMEN						110		139		160		176		585	585
FARM MANAGEMENT															
SALARIES	74		148		186		177		0	35			585	35	620
VEHICLES					11	16	6	8		16		25	17	65	82
TRAVEL ALLOTMENTS	13		27		34		40		6				120		120
PRODUCTION CREDIT LOANS	709		1,038		1,432		1,159						4,338		4,338
ADMINISTRATIVE COSTS															
SALARIES	28		82		87		87		6				290		290
AID PROJECT LIAISON			150		150		150		150				600		600
RENT - REGIONAL OFFICES			8		8		8		4				28		28
EQUIPMENT & MISC - REGIONAL			2										2		2
INTERNAL CONTROL AUDIT			5										5		5
COMPUTER EQUIPMENT	28												28		28
TRADITIONAL PROGRAMS	50			183		183		183		183		183	50	915	965
INSNL TA AND TRAINING	30		30		30		10						100		100
INFLATION													278		278
CONTINGENCIES													789		789
COMPONENT SUBTOTAL	1,336	0	2,098	183	2,582	631	2,269	781	398	936	0	969	9,750	3,500	13,250
RESEARCH COMPONENT															
RESEARCH TECHNICAL ASSISTAN			59		21		37		8		28		153		153
RESEARCH EXPENSES			75		37		41		10		34		197		197
INTERNATIONAL TRAVEL			43		13		23		6		18		103		103
DIRECT COSTS			10		6		9		2		5		32		32
OVERHEAD			47		21		27		6		22		123		123
INFLATION													71		71
CONTINGENCIES													71		71
COMPONENT SUBTOTAL	0	0	234	0	98	0	137	0	32	0	107	0	750	0	750
PROJECT TOTAL	1,336	0	2,332	183	2,680	631	2,406	781	430	936	107	969	10,500	3,500	14,000

DISBURSEMENT SCHEDULE BY YEARS

COMMERCIAL LAND MARKETS 520-0343 SUMMARY COST ESTIMATE (US\$000)	SOURCE OF FUNDS					TOTAL
	PRIOR A.I.D. OBLGAIN	PRIOR A.I.D. OBLGAIN	A.I.D. AMNDT	A.I.D. AMNDT	PENNY FNDIN	
	FX	LC	FX	LC		
TYPE OF EXPENDITURE						
CASH PURCHASE OF LAND		900		1,620		2,520
CERTIFICATE PRINCIPAL PAYME					1,900	1,900
CERTIFICATE INTEREST PAYMEN					585	585
SALARIES		400		475	35	910
VEHICLES			17		65	82
TRAVEL ALLOIMENTS				120		120
PRODUCTION CREDIT LOANS		450		3,888		4,338
AID PROJECT LIAISON			500	100		600
RENT - REGIONAL OFFICES				28		28
EQUIPMENT & MISC - REGIONAL				2		2
INTERNAL CONTROL AUDIT				5		5
COMPUTER EQUIPMENT & TA			5	23		28
TRADITIONAL PROGRAMS		50			915	965
INSTL TA AND TRAINING			100			100
INFLATION:		50	59	240		349
CONTINGENCIES	50	100	72	638		860
RESEARCH TECHNICAL ASSISTAN			135	18		153
RESEARCH EXPENSES			117	80		197
INTRNATIONAL TRAVEL			103			103
DIRECT COSTS				32		32
OVERHEAD			123			123
TOTAL	50	1,950	1,231	7,269	3,500	14,000

COMMERCIAL LAND MARKETS			
520-0343		PENNY	RESEARCH TOTAL
COSTING OF PROJECT OUTPUTS/INP		FNDTN	
(US\$000)			

AID APPROPRIATED			
CASH PURCHASE OF LAND	2,520		2,520
SALARIES	875		875
VEHICLES	17		17
TRAVEL ALLOTMENTS	120		120
PRODUCTION CREDIT LOANS	4,338		4,338
AID PROJECT LIASON	600		600
RENT - REGIONAL OFFICES	28		28
EQUIPMENT & MISC - REGIONAL	2		2
INTERNAL CONTROL AUDIT	5		5
COMPUTER EQUIPMENT	28		28
TRADITIONAL PROGRAMS	50		50
INSTL TA & TRAINING	100		100
INFLATION	278	71	349
CONTINGENCIES	789	71	860
RESEARCH TECHNICAL ASSISTAN		153	153
RESEARCH EXPENSES		197	197
INTERANTIONAL TRAVEL		103	103
DIRECT COSTS		32	32
OVERHEAD		123	123
PENNY FOUNDATION			
CERTIFICATE PRINCIPAL PAYME	1,900		1,900
CERTIFICATE INTEREST PAYMEN	585		585
SALARIES	35		35
VEHICLES	65		65
TRADITIONAL PROGRAMS	915		915

TOTAL	13,250	750	14,000
=====			

73

EVALUATION OF COMMERCIAL LAND MARKET PROJECT
EXECUTIVE SUMMARY

Beginning in 1984, the AID mission in Guatemala has funded a Commercial Land Market Project carried out by the Penny Foundation (Fundación del Centavo), a private local development organization. The three million dollars in funding has provided for the purchase of farmland, technical assistance, and production credit as well as covering part of the Penny Foundation's administrative cost to manage the project. Under the terms of the grant agreements, the Penny Foundation: (a) negotiates the purchase of farmland on the open market, paying up to 50% in cash at the time of sale and the balance over a three to five year period through certificates of guarantee; (b) divides the farm in commercially viable, family-sized parcels; (c) selects eligible participants willing to purchase the parcels and capable of making a 10% down payment; (d) finances the sale to selected participants; and (e) provides technical assistance and production credit for the time necessary for the new households to become acquainted with the new crops and technology. The Penny Foundation Land Market Project is a unique effort to provide access to land for the rural poor in Guatemala. The practice of providing mortgage financing for farmland purchases is quite old in industrialized but has never received support from Latin American governments or international donors until now.

The project is important to A.I.D., as the Policy Determination on Land Tenure (PD-13, May 9, 1986) states that "A.I.D. will also support programs that broaden the opportunity for access to agricultural land, promote tenure security and stimulate productive uses of land to ameliorate the barriers to market entry that exist in some LDCs." Further, A.I.D. is prepared to assist countries in land market programs that (a) promote transactions between willing buyers and sellers; (b) promote transactions which occur for economic gain; (c) allow for the wide dissemination of the opportunity to buy the land; (d) land tenure is sufficiently secure so that land transactions can occur.

The Penny Foundation Project is the first and only such activity currently supported by A.I.D. in the world. Other countries and international donors are watching the project's development and results with the idea of implementing similar projects in other countries. For Guatemala, the project represents the only effort other than colonization to address the land distribution problem which has resulted in inefficient resource use, a skewed income distribution, and inadequate performance by the agricultural sector.

The Penny Foundation acts as broker for the negotiations and all financial aspects of the land purchase and sale. Sellers handle the transactions with the Foundation directly rather than a group of potential buyers. In effect, the Foundation becomes owner of the property, paying the seller 50% of the purchase

price in cash, with the balance covered by guarantee certificates payable over 5 years at 9% interest. After parceling the land the Foundation re-sells it to individual peasant farmers with a 10% down payment and 10 year mortgages at 12% interest.

The Foundation, founded in 1962 by Sam Greene, is a Guatemalan private non-profit organization dedicated to rural development. Historically it has promoted a variety of programs including agricultural credit, education, housing and small enterprise. Funds have come both from member donations and from international donors. The commercial land market project is currently the largest program of the Foundation, and the project director is a university trained agronomist. In addition to office support staff, the project personnel include 3 other agronomists who are responsible for managing farms purchased in three regions of the country, and high-school trained technicians who live and provide technical assistance on each farm.

The Penny Foundation to date has purchased 19 farms, principally for coffee and export vegetable production. Although all of the farms have some potential, the purchase process could be improved by careful adherence to purchase criteria, particularly in purchasing farms for coffee already in production to provide immediate income to beneficiaries for living expenses and debt repayment. Improved computer capability is essential to bettering the farm purchase process.

Both coffee farms, located in the north and costal regions of the country, and export vegetable farms in the highland area, are profitable. After a farm is purchased, it is surveyed and analyzed agronomically to determine the number and locations of the land parcels, a process which takes several months. Both types of farms are divided into land parcels with an area of about 4 manzanas, which has been determined to be an optimum size farm. Once the parcels are in full, technically sound production, they are able to produce a family annual income of at least Q.5000 (\$2000).

The program beneficiaries can be grouped into two main types: farm laborers and small subsistence farmers. The first group is made up of laborers who have worked on large farms, have no land of their own, who are located around the major coffee-growing areas of the country and who make up the bulk of the beneficiaries on the program's coffee farms. The second group are small, Indian farmers with small plots in the highlands, many of whom have already begun to change from purely subsistence farmers depending on corn and bean crops to cash crop entrepreneurs growing export vegetables in conjunction with the agroexport companies. Nearly all beneficiaries are male heads of families, averaging 4.1 dependents, about 35 years old, with low incomes and no more than four manzanas of their own land, although 65% had no land at all.

The Penny Foundation program makes contact with potential beneficiaries after purchasing a farm in the area. Candidates present themselves, learn about the program, fill out a questionnaire, and are interviewed by Foundation personnel. Potential beneficiaries work with the farm technical assistance personnel in land preparation activities while the land surveying is being carried, which helps the Penny Foundation in the selection process. Finally, lots are drawn to assign each beneficiary his parcel, the beneficiary makes his 10% down payment, and the process of transferring a provisional title to the beneficiary is begun. The beneficiaries may leave the program at any time without penalty, although it is estimated that no more than 10% of the beneficiaries have left after receiving their parcels.

The Penny Foundation provides agricultural production technical assistance to the beneficiaries, but other costs, such as production costs, housing, and subsistence expenses, are paid for by the beneficiaries, who have these expenses added to their total indebtedness to be paid off when the farm is in production. Technical assistance is crucial if the beneficiaries are to learn the technology necessary for cash crop production. The técnico, a high school-trained agricultural technician, lives on the farm and provides the day-to-day technical supervision, while an agronomist assigned several farms in a region provides overall supervision.

In general, the Penny Foundation land market program is a sound one with the potential to make a real contribution to solving the needs of landless and land poor farmers. The program could be improved by implementing the following recommendations in the areas of farm purchase selection, relations with the beneficiaries, and program organization.

Recommendations:

1. Procedural changes are needed in the purchase process to expedite the rejection or purchase of the farm. The second evaluative visit to a farm being considered for purchase, which is made by the Foundation general manager and the director of the Land Purchase Program, could be eliminated and the agricultural engineer who makes the initial agronomic evaluation of the farm could become more involved in the price negotiation process.
2. A series of guidelines, both agronomic and socio-economic should be drawn up and established as primary criteria for the initial evaluation of the farm in question. These guidelines should be sensitive to the wide set of agronomic variables encountered in different areas of the country as well as the corresponding crop possibilities.
3. If the program is to begin a new phase which includes a possible expansion, it is imperative that reliable and complete data are managed in a responsible and comprehensive manner allowing in-depth progress analysis.
4. Both the vegetable and the coffee farms appear to be profitable within the context of this program. The Penny Foundation is currently exploring alternative crop possibilities for developing Monteliman, a farm which does not fit the profiles of other Foundation farms. By exploring a variety of options this farm can be used by the Foundation as a proving ground for expansion beyond the traditional activities in coffee and vegetables.
5. The highlands are precisely the area of greatest civil conflict in recent years, and the implementation of the Penny Foundation program for people in this area should help alleviate the pressures which led to this conflict. Both the acquisition of farms for distribution in the highlands as well as the purchase of coffee farms where the beneficiaries are primarily from the highlands should be attempted.
6. The Foundation has purchased both producing and non-producing farms for coffee production. There should be greater emphasis given to producing farms, since there is less risk involved for both the beneficiaries, who do not have to survive three years without income, and for the Foundation, because of the lower

beneficiary turnover and lack of need to build the entire operation from nothing.

7. The questionnaire used to collect information from applicants for selection of beneficiaries is adequate for this purpose, but the computer capabilities for recording and processing this information are rudimentary and both the hardware and software should be updated.
8. The process of educating beneficiaries about their rights and responsibilities could be improved by preparation and use of some form of standardized information packet, either a printed information sheet or audiovisual material which could be incorporated into on-farm question and answer sessions.
9. The Foundation's flexibility in devising special arrangements for collection of the down payment is important to insure that the intended beneficiaries are served by the program, and it should be continued.
10. Additional training and logistical support for the técnicos in educating the beneficiaries about credit and in the collection and accounting of payments.
11. The técnicos should produce written reports about beneficiaries who leave which include reasons given for leaving, time spent in the program and how well they seemed to fit the program.
12. The Foundation should actively pursue the housing program on the farms in order to alleviate the poor living conditions which cause resistance to residing on the farm and contribute to beneficiary turnover.
13. The Foundation's plan to construct schools and hire teachers on the farms is an excellent solution to the problem of providing education, a priority for the beneficiaries if they are to reside on the farm. The program should be expanded.
14. The Foundation might attempt to establish its own system of health promotion, perhaps through a mobil health unit, staffed by a doctor and nurse and carrying health supplies. The unit could provide direct medical services and train local promoters among the beneficiaries. However, to be effective any initiative in the area of health and sanitation should have the active support of the beneficiaries.
15. The program would benefit greatly by the participation of social workers to monitor the program's progress toward its social goals, to provide experience in group dynamics needed to build successful Directivas and a sense of community, and to search for additional sources of assistance for community

improvement programs. The social workers also could provide important counseling and training in how to use additional income for improving living standards. This type of training may be particularly important in working with the women on the farms.

16. The Foundation's regional offices should be utilized by the land market program as centers to identify potential beneficiaries, to provide administrative support (relieving the agronomists of much of the responsibility of carrying messages from the capital to the farms, providing more direct support to the technicians in the region, assisting in the logistics of arranging the agronomists' farm visits), and to serve as training centers for the technicians in the region, both for short courses and for monthly meetings to discuss problems on their farms.

17. Although AID has successfully allowed the Penny Foundation a free hand in developing the program to date, it would seem wise for AID to oversee the program more carefully as funding increases, particularly in terms of controls on the program's finances and in the implementation of information management systems and the standardized evaluation of farms for purchase.

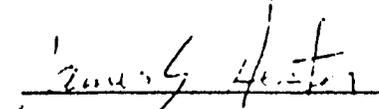
18. In expanding the land market program, the experience of the Penny Foundation should be used both to expand the program with the Foundation and through other organizations. Other institutions which might be viable candidates for parallel programs are Guatemalan cooperative federations and other private development organizations such as the Movimiento Guatemalteco de Reconstrucción Rural (MGRR).

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON DC 20523

LAC-IEE-88-07

ENVIRONMENTAL THRESHOLD DECISION

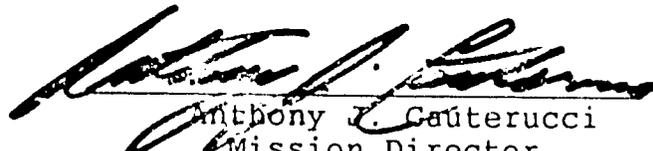
Project Location : Guatemala
Project Title : Commercial Land Markets II
Project Number : 520-0343
Funding : \$10.5 million (G)
Life of Project : 4 years (FY'88-92)
IEE Prepared by : Frank Zadroga
REMS/ROCAP
Recommended Threshold Decision : Positive determination
Bureau Threshold Decision : Concur with Recommendation
Comments : An Environmental Assessment
focusing on issues identified in
this IEE, and especially
pesticide use is required.
Copy to : Anthony Cauterucci, Director
USAID/Guatemala
Copy to : Roberto Figuero, EO
USAID/Guatemala
Copy to : Richard Steelman, USAID/Guatemala
Copy to : Frank Zadroga, REMS/ROCAP
Copy to : Donald Boyd, LAC/DR/CEN
Copy to : IEE File

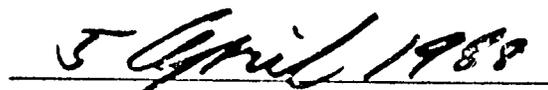
 Date JAN 25 1988
James S. Hester
Chief Environmental Officer
Bureau for Latin America
and the Caribbean

INITIAL ENVIRONMENTAL EXAMINATION

Project Country : Guatemala
Project Title and Number : Commercial Land Markets II
(520-0343) (Grant Agreement)
Life of Project : 4 Years (FY'88-92)
LOP Funding : \$ 10.5 million (Grant)
IEE Prepared by : Frank Zadroga, REMS/ROCAP
IEE Cleared by : Roberto Figueroa/EO, USAID/G
Funding : \$8.5 million Grant
Recommended Threshold Decision : Positive determination; the project will carry out an Environmental Assessment emphasizing the issues identified in this IEE.

Concurrence :


Anthony J. Caüterucci
Mission Director
USAID/G


Date

I. BACKGROUND

Land concentration in Guatemala has resulted in the improper use of large expanses of land. The Commercial Land Markets Project has supported a non-profit organization, the Penny Foundation, which buys underutilized land and sells it to rural poor. This land market service is intended to increase agriculture production as well as the incomes of small farmers participating in the Project. The Commercial Land Markets Project (520-0343) was funded with a grant of \$1 million in 1985, followed by another of \$1 million in 1986. An additional grant of \$8.5 million is proposed to expand the Foundation's land purchase program and make it self supporting. Project approval would give a four-year extension of the Project thru August 31, 1992. The Penny Foundation will contribute \$3,500,000 over the life of the project as its required counterpart contribution.

II PROJECT DESCRIPTION

The Goal of the Project is to achieve greater participation by Guatemala's rural poor in sustained, real economic growth. The goal is consistent with USAID/G's FY 1986 Country Development Strategy Statement and subsequent Action Plans.

The Sub-goal of the Project is to increase the cumulative value of agriculture through a program of better land utilization. The Project's activities are expected to result in the transfer of the Commercial Land Market experience to other organizations and lead to the resolution of other constraints to secure land titles, land financing and other land-related activities in Guatemala.

The Project Purpose is: to establish and expand the Penny Foundation's voluntary land purchase/sale program as a self-supporting activity capable of increasing agricultural productivity and incomes of the rural poor, and to identify and promote additional instruments to increase production and intensify the use of agricultural land.

By the end of the Project, the Penny Foundation's land program proposes to be self supporting. The Penny Foundation will be selling annually 1,350 hectares in parcels to an estimated 360 beneficiary families.

The Project has five major components that all contribute to the overall action of purchase of underutilized land and its sale to and adoption by the rural poor. These are:

1. Land purchase and sale;
2. Farm Management;
3. Production Credit;
4. Administration and Management; and
5. Research

Specific project outputs include the purchase of a total of 9,000 hectares of land over the life of the project and its parcelization and transfer to rural poor. Annual outputs are estimated at the purchase of 1,350 hectares of land and the sale of 360 farm parcels to beneficiary families. Parcels sold to beneficiaries will average approximately 2.8 hectares (7 acres) and be cultivated intensively in any one of several crops, including: corn, wheat, sesame seed, mangoes, coffee, cocoa, pineapple, cauliflower, brussels sprouts, broccoli and other commercial fruits and vegetables. Most lands purchased by the Penny Foundation were previously underutilized and/or fallow. Many of the farms have marginal or forest lands on the property even though the Foundation attempts to buy commercial agricultural lands. Occasionally properties have been purchased with a predominantly limited (i.e., forestry or permanent crops) land use capability. The size of properties purchased to date vary from slightly more than 10 to over 1,200 hectares.

Under the farm management component, the Foundation will hire an estimated 48 agricultural technicians and 12 agronomists to provide technical assistance free of charge to project beneficiaries; in addition, they will provide technical skills for farm planning and management before lands are parceled out.

Production credit totaling \$4.37 million will be used to support each farmer/beneficiary of the program. Credit funds are used for farm materials (fertilizer, seed, pesticides, root stock, etc.) and a subsistence wage. Farm materials are generally purchased by the Foundation and delivered to each farm.

The project research component will produce reports on: (1) methods to expedite the processing of parcel titles in the National Land Registry; (2) need, goals, feasibility and method for reform of the Registry; (3) institutions and/or financial mechanisms identified to establish long-term financing for small and medium-sized farm purchases and design of a follow-on project; (4) three additional organizations identified and contacted to manage land financing programs, and proposals for programs with these organizations; (5) a baseline survey and two follow-up surveys of a sample of farms and beneficiaries in the Penny Foundation program: (Campesinos selected from other rural organizations or communities will be surveyed as a control group and included in the analysis and report.); (6) policy and project implications drawn from studies of at least three additional land-related problems, including other land transfer mechanisms such as land rentals, and additional or alternative sources of rural income and employment for the land poor and landless campesinos.

III. ENVIRONMENT AFFECTED

The Commercial Land Markets II Project does not establish any geographic restriction for land purchase.

Conversations with Foundation staff indicated that factors such as project experience, administrative and logistical limitations, land prices, and general environmental conditions naturally restrict project land purchase from certain areas such as the Peten, where productive agricultural lands are scarce, and the southern coast, where land values are excessively high. Officially, however, land purchase, sale and development could occur anywhere in Guatemala with its tremendous environmental diversity (see Guatemala Country Environmental Profile).

- 54

IV. POTENTIAL ENVIRONMENTAL CONSEQUENCES

The Commercial Land Markets II Project as proposed has both positive and negative environmental consequences. Project components and actions, as currently contemplated, will assist in intensifying land use, agricultural productivity and in improving the welfare and incomes of beneficiary rural poor.

In order to sustain these productivity and social welfare benefits and to avoid undesirable environmental impacts, certain environmental and impact mitigation measures are needed, as outlined in Section V.

The project proposes to procure and use pesticides and other agrochemicals, several of them under special review or in the restricted category. This could lead to human health and environmental contamination impacts directly affecting project beneficiaries, or other downstream users and natural ecosystems in the project area of environmental influence.

The purchase, sale and use by the Penny Foundation of properties raises the issue of sustainability of land use. Improper planning and management of land resources could lead to soil and water resource degradation, the establishment of farms which are not economically sustainable, and production systems which either over or under utilize the land resources. Farm planning and management should be carried out in accordance with land use capabilities; farm system approaches may be necessary instead of monocultures under certain environmental and socio-economic conditions.

The sale and development of properties could lead to the unjustified cutting of forest lands and destruction of biological resources. Many, if not most, of the properties managed by the Penny Foundation have fragile or marginal lands that require either protection or controlled management in order to conserve their biological resources. Likewise, many properties produce goods and services on a communal level and should be managed and/or protected as commons. Watersheds yielding water for drinking or irrigation, and forest reserves

95

yielding fuelwood, sawtimber, game and other resources are the two most common examples. Improper planning and management could lead to the parceling up of entire properties and the undesirable destruction of biological and communal resources.

V. MAJOR ENVIRONMENTAL CONCERNS

The following four areas of concern have been identified with respect to this project:

1. Pesticide procurement and use;
2. The sustainability of land use and the management of Foundation properties in accordance with land use capability;
3. The protection of biological and tropical forest resources; and
4. The conservation of communal natural resources including woodlots, forest reserves and water supplies.

Without proper environmental impact assessment, the identification of mitigative measures, and the carrying out of the necessary environmental management practices, significant impact could result compromising the achievement of the project goal and purposes.

VI. CONCLUSIONS AND RECOMMENDATIONS

According to the A.I.D. environmental procedures Section 216.2(a) environmental analysis/evaluation is required for all substantive project amendments, as well as new projects. Furthermore, in the case of the Commercial Land Markets II Project, significant potential impact could result from the procurement and use of pesticides and the clearing and development of tropical forest lands. Both of these actions require the preparation of an Environmental Assessment (or Impact Statement) per 22 CFR Section 216.3(b) and FAA Section 118, respectively.

USAID/Guatemala will issue a Sequential Project Implementation Letter stating that funds under the

amendment will not be utilized for pesticide procurement until the required environmental assessment has been completed and taken into account. USAID/Guatemala further agrees to modify project amendment implementation plans in accordance with the environmental assessment and subsequent review to be carried out by the LAC/DR/CEO, if it is decided that modifications are necessary.

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11

EXHIBIT E. Institutional Analysis

The Penny Foundation is a successful organization that has survived and grown quite impressively over the last 25 years. It has remained active during tremendously turbulent times, especially for organizations involved in rural development in Guatemala. Overall, the Penny Foundation has produced remarkable results.

The Foundation is the result of gradual growth. It began operations in 1962 with donations of less than \$10,000. Initially, the activities of the Foundation were modest. They started with the building of latrines, water systems and other basic services in rural areas on a limited scale and in coordination with rural municipalities. Little by little they expanded into other areas. They began supplying fertilizer and other needed products to small farmers. They started seeking the decentralization of medical and dentistry services to rural areas. They began to support small businesses and cooperatives with non-collateral production loans. They expanded their mission to be "The Resolution of a Rural Community's Felt Needs."

In the late sixties, the Foundation made its first loan for the purchase of land. These first attempts were haphazard. Properties were purchased and handed out without great concern given to land titles or form of payment. No efforts were made to determine the capacity of beneficiaries nor their dedication to the program. They were selected simply on the basis of having worked on a farm. The initial program was not highly successful. It was noted that little impact was being made on the life styles of those receiving assistance. Problems were being postponed but not resolved. Fortunately, at the beginning, the program was limited to a manageable size. The Foundation was able to learn from its experiences without having over-extended its resources or its commitments.

With the earthquake in 1976, the principal efforts of the Foundation were re-directed towards housing needs. In these efforts, the Foundation received considerable support from international agencies.

It was not until 1983 that attention was again focussed on the land commercialization program. But now a new philosophy was evolving in the Foundation. The goal became to improve instead of just maintain the life styles of the beneficiaries. An income of \$3200 per year - similar to that of a middle-class person in Guatemala City - was sought. An additional benefit would be a reduction of migration to the capital city.

An integrated development program evolved. Its focus was on the development of the person and not on the purchase of land. The program has five basic elements:

- Modern Agriculture - land distribution is to be maximized by using highly-profitable crops on small parcels with continuous technological input. Considerable changes in traditional crops and methods of farming are required. Those who refuse to change are not accepted into the program.
- Education - Literacy training is to be given to adults. Children are obliged to attend school instead of working on the farms. Since parcels cannot be profitably subdivided, only one child, on average, should remain on the land. The rest must be prepared for different careers. Future plans include seeking scholarships for high school and college for the most capable students, contacting and developing local businesses to provide on-the-job training, a small business program to provide opportunity for others.
- Management development - Transfer of management from the Penny Foundation to the beneficiaries is gradual. It enables beneficiaries to concentrate on farming until they have increased their incomes and developed managerial capabilities.
- Careful selection of beneficiaries - There is a trial period of approximately one year before land titles are assigned.
- Long-term financial support - Long-term production credit is provided. In fact, the land purchase cost is a relatively minor part of the total investment needed per parcel. Historical data indicate the following approximate average investment distribution: Land - 25%; Production Credit - 60%; Administration and technical costs.- 15%.

There is obvious compatibility of the Project with the philosophy and principal areas of activity of the Penny Foundation. There is also compatibility between the Project and the managerial environment at the present level of activity. This, once again, is borne out by the success of the land purchase program.

The Foundation is at a critical stage of institutional growth. It has most of the characteristics of a typical small operation. These include direct involvement of top management at all levels of activity, centralized decision-making, and personalized, informal management, planning and controls. These qualities have been crucial in its success to the present. However, to achieve successful growth, top management will have to decentralize decision-making and shift from direct action to guidance and indirect control.

No major reorganization will be needed in the next five or even ten years to manage the Project. Several changes will, nevertheless, be needed. Some of these changes and staff additions are already underway, reflecting favorably on the ability and willingness of those in the Foundation to respond to the Project. Others are under study.

The Penny Foundation is made up of four types of members: founders, active members, contributors and honorary members. Founders, active members and contributors have voice and vote in the General Assembly, which is the supreme governing body of the Foundation. Honorary members have voice but not vote.

To become an active member in the Foundation, one must contribute \$400 over an unlimited period of time. Active members may be either individuals or companies. The Foundation has the right to refuse active membership by turning down a contribution. There are about 550 active members. The word active is more by definition than by action. Only about 40 to 50 participate in the General Assembly. Only about four or five participate actively in Foundation activities during any given year.

Donations are sporadic. No systematic effort exists to obtain them. Between 1979 and 1981 almost half a million dollars was raised. The ensuing economic recession caused donations to drop drastically. No effort has been made to reactivate this funding source.

Attention to new membership has fallen off to practically nothing. According to records reviewed, which are possibly incomplete, only two new members have joined in the past three years. Donations from private sources have been received in the last three years. Most donations have come from international organizations such as the Interamerican Foundation, C.I.D.A., the OAS, P.A.C.T. and others. Management attention has been directed towards the land purchase program.

According to available data, annual donations and number of donors since 1977 are the following:

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
No. donors	19	12	98	41	13	9	12	4	19	6
Amount-Quetzales ^{1/} (Q000s)	80	2	150	150	160	29	17	.2	57	52

^{1/} Exchange rate was 1 Quetzal to the dollar until November 1984. During 1985 the rate went as high as Q4 to 1US \$. From 1986 on, it has more or less held at Q2 to 1US\$.

The General Assembly of the Foundation meets annually. Its participation is more formal than active. Its functions include: set Foundation policy; elect the members of the Board of Directors; approve the financial statements and the proposed budgets; revise the by-laws if necessary; decide on the liquidation of the Foundation; designate honorary memberships; accept the resignations of members of the Board of Directors.

The Board of Directors is the top executive authority of the Foundation. It is quite active for a Board of Directors of a non-profit organization. It usually meets every week or two. Sometimes sessions are more frequent. Its members also participate in visits to farms to evaluate potential purchases and in special-purpose committees. They often use their influence and contacts in support of Foundation programs.

The Board of Directors consists of seven members and two substitutes. Terms are for two years. Re-election is permitted. Usually about half of those whose terms expire seek re-election. Participation is ad honorum and requires much sacrifice. The President has held the post since 1979. He is very active in promoting and participating in Foundation activities. The General Manager attends meetings but does not have a vote. Members have varied backgrounds. They are farmers, lawyers, bankers, writers and accountants.

Duties of the Board of Directors include: comply with the resolutions of the General Assembly; name and remove the general manager and top executives; convoke sessions of the General Assembly; oversee fund use and Foundation program development; report annually to the General Assembly; accept new members and contributors; approve plans and budgets. Members often have concerned themselves with program details to the neglect of fund-raising. The Foundation is increasing its reliance on international donations at the expense of a local funding base. The Board of Directors also has developed ties with international organizations such as SOLIDARIOS which enables it to obtain financing and technical support if needed.

Several committees exist within the Board of Directors to expedite the handling of specific problems. Some committees such as the Credit Committee and the Land Purchase Committee are permanent. Others, such as the 25-year Anniversary Committee, are formed for special occasions.

The General Manager and the President are the driving forces behind the success of the Penny Foundation. Most of the creative ideas appear to emanate from the General Manager and are discussed with the President before they are carried out. Most authority resides with them. They are supported by professional financial and legal advice from members.

11

According to the Foundation's by-laws, the General Manager has the following responsibilities: name and remove technical and administrative personnel; prepare the budget and the annual report; comply with the instructions of the Board of Directors; present plans and expansion studies to the Board of Directors.

In practice the General Manager is involved in practically every activity, although he tends to concentrate his efforts on the land markets program. When asked what his principal functions are he responded: "That is a complicated question. I do a little of everything. I get involved in anything that needs to be done. If a visitor needs to be taken some place I am the driver. I sign all checks - sometimes 30 to 40 a day. I approve all loans. I visit the properties and negotiate their purchase. Much of my time I spend trying out new ideas." The response is typical of a successful entrepreneur. But it can complicate growth beyond a certain level. Ideas are not communicated in writing. This problem was mentioned continually in the interviews and questionnaires.

Fortunately, the General Manager is very capable, well prepared in many areas, very dynamic and really knows the business. Despite his reluctance to delegate, he will continue to be a very positive factor in the success of the Commercial Land Markets Project.

Besides attending to the activities mentioned in the by-laws, he should concentrate on: long-term planning and policy; fund-raising; guidance and control of the departments which report directly to him; membership expansion and support; organizational development; inter-departmental coordination at the primary level; representation of the Penny Foundation; land purchase negotiations; short-term planning at the primary level; signing of checks which surpass a given amount to be determined.

The new Assistant General Manager is an ideal person to fill the needs of the Foundation. He has a background in business administration, finance and controls. These are precisely the areas where the needs are greatest. He is also very familiar with the Foundation, having worked in its accounting department before becoming involved as regional director of SOLIDARIOS.

The new Assistant General Manager will begin by participating in and directing the establishment of formal policies, procedures and job descriptions. He will improve the system of accounting controls. He will also give courses such as funds flow accounting to upgrade the accounting department. He will be able to attend to most of the training needs without bringing in external technical assistance.

Eventually, the new Assistant General Manager will be in charge of administration and finance for the Foundation. He will directly cover the

98

areas of greatest need and will be able to greatly reduce the work load of the General Manager. Among his principal functions will be the following: financial control of the Foundation; signing of routine checks; authorization of payments up to an amount to be determined; participation in global planning; budgeting and cash flow determination; financial analysis; supervision of accounting practices, control systems and reporting procedures; training in technical areas; supervision of personnel policy; assist the General Manager in fund-raising activities; guidance and control of subordinates; assist the General Manager as necessary; replace the General Manager in his absence.

Beneath the Assistant General Manager, the Foundation is organized by permanent project and by function. There are three basic project divisions: the Division of Land Commercialization, the Division of Rural Housing, the Division of Rural Credit Projects. There is also a Division of Support Programs. Its principal activity consists of public relations and the issuing of new coins and medals commemorating important Guatemalan figures and events. This activity is a fund-raiser. It generates a net income of about \$25,000 per year.

Apart from the divisions, there is a Department of Administration and Finance. The Department of Administration and Finance presently has 12 employees including a manager, an assistant manager/auditor, five accountants and general services personnel. This Department is somewhat in disarray. The financial planning and reporting in some areas are deficient. Important functions such as credit collections could use more direct attention. Much of the accounting is done manually. The problem is not so much one of incapacity as it is a problem of growth and organization. There has been little time available to dedicate to organization of the work. Financial systems are informal. There are excessive delays in incorporating financial information from the land purchase process and other processes into the estimated funds flow. The funds accounting system is not adequately understood. The internal auditor is a mixture of coordinator, manager, accountant and occasional auditor. Much financial data is not computerized in a form that is meaningful for managers. It is not made readily available for their use on a periodic basis. The Department needs exclusive use of a computer and computer training.

To a great extent, the problem in the financial department will be resolved by the new Assistant General Manager. A re-organization is now in process. The present financial manager will be transferred to the Division of Land Projects. Preliminary indications are that the present financial assistant/internal auditor will take the position of controller/personnel manager. He will assist in the design of formal control procedures leading towards the establishment of a true internal auditing function. This person will also concentrate on credit collections. He will revise credit forms and work with the Assistant General Manager to develop a formal personnel policy.

Credit collections, at present, do not appear to be a major problem although there are inefficiencies involved. The Foundation had a total of approximately \$1,000,000 of loans outstanding as of December 1986. Doubtful accounts estimates are kept by source of funds and range from zero to nine percent. The nine percent is for the Foundation's rural housing program concentrated in the Chimaltenango area. The residents of this region suffered under severe civil strife, resulting in the deaths or flight of many heads of household. The zero estimate is for the land markets program. The total estimate is only 3 percent of total loans receivable. The expansion in production credit contemplated will greatly increase the importance of collections. A separate position for credit collections and personnel might eventually be needed.

If a separate position is established, it should be limited to the function of control of credit collection. An additional function could be the development of a standard educational program for the beneficiaries on credit use and payment, to be administered by the technicians. Collections also should be made by the technicians instead of hiring separate collection personnel. If credit collection become a serious problem, it may be necessary to hire a lawyer at least part time to assist in legal actions.

A new division that is contemplated is the Small Business Division. The Penny Foundation has entered into agreements with INTECAP - a Guatemalan technical training institute - and a Swiss Foundation. It has commenced development activities with a number of small mechanic shops located in the perimeter of Guatemala City. If these experiments are successful, it plans to expand its small business development activities to the small towns of the interior. The intention is to bolster local economies, reduce the migratory flow towards the capital and also provide job and business opportunities for the children of Land Project beneficiaries.

The Division of Land Commercialization functions separately from the other divisions. It presently has 29 employees. Most of the efforts of the Foundation are being concentrated on this Division. It will continue to grow quite rapidly.

The Director of the Division has considerable authority in day-to-day operations, but basic decisions are made, at least formally, by the President and General Manager. Coordination among the Director, the General Manager and the President appears to be excellent.

Authority within the Division is centralized. The Director is directly involved in every level of activity. Much of his time is spent on the farms. He is familiar with the details of activity on each farm. By his own words he spends 50% of his time in direct field supervision, because the project is still in the developmental stage. He feels a personal commitment to the

project model. It is this on-the-spot attention that has enabled the Foundation to adapt so readily to the evolving requirements of the program. Later, when the program has stabilized and the model has become more standardized, he intends to devote much more time to administrative duties. Once again, there is a strong example of entrepreneurial spirit and initiative.

This 50 percent in the field provides a great cushion for expansion. The Division Director is working full-time, but as the program grows, he will be able to delegate more field activity and spend more time in management. His management span of control can be greatly extended. His capacity and familiarity with all aspects of the program will enable him to eventually manage indirectly with effectiveness. A major reorganization will not be needed to handle Divisional growth required by the Commercial Land Markets Project. It can be successfully managed.

The remaining 50% of the Director's time is spent in administrative duties (25%), planning of farm activities (10%), appraisal and negotiation of farm properties (10%) and other activities (5%). A detailed, written, 2-page job description exists which covers the managerial duties of the Director.

At present, beneath the Director, there are 5 agronomists (one of whom has just been transferred full-time to the data processing department), an administrative assistant, a secretary, 15 technicians, one legal adviser, three teachers and two accountants. An organization chart is presented to show the hierarchical relationships of the present structure.

Organizational plans are now being developed to encompass expansion of the Land Purchase Program and also to augment the philosophy of integrated development. The most immediate need is for a person to manage purchasing. The specific functions of this person would be: seek price quotations on a continual basis; handle purchasing operations and record-keeping; arrange for transportation of materials to be delivered to the farms; and manage the central warehouse.

This activity is now the responsibility of the administrative assistant. A specialist in purchasing will provide several benefits: permit the administrative assistant to attend to other duties; enable better prices to be obtained through specialization and greater volume of purchases; eliminate time lost by technicians and agronomists in the arrangement of materials transportation; and, improve warehouse management and control systems.

Another change in process is the transfer of the financial manager full-time to the Division of Land Commercialization. He will concentrate on financial planning and analysis, cash flow projections, consolidation of financial aspects of farm plans and credit needs, and improved communications with the financial department.

To meet the ever-increasing need for quality information, a full-time position has just been established for data processing. This is another indication of the Foundation's ability to rapidly adjust to growth requirements.

Three regional centers will be opened to accommodate growth and to reduce pressure on the program director. Each center will be staffed by an administrator/ accountant. Three or four agronomists will work out of the center; one will be responsible for the center.

An organization chart of the Foundation at present and a projected structure at the end of five years is included. This structure is feasible and manageable within the financial resource and administrative capacity of the Foundation. The project will be in capable and experienced hands and will be successfully implemented.

As mentioned, direct farm management begins with the Division Director who spends approximately 50% of his time on the farms. Beneath the Director are the agronomists. Each agronomist is in charge of an average of four farms. Eventually, almost all operational authority will be delegated to the agronomists through the regional centers.

According to questionnaires and interviews for this analysis, the agronomists spend about 50% of their time in direct contact and supervision of the beneficiaries, 15% in supervising the technicians, 10% in the purchasing process, 10% in planning activities, 10% in the promotion and selection of beneficiaries, and 5% in other activities. One agronomist is beginning to spend considerable time in marketing.

Beneath the agronomists are the agricultural technicians. They are the principal direct link of the program with the beneficiaries. According to the questionnaires and interviews, they spend about 60% of their time in direct technical supervision, 20% in administrative duties, 10% in organizational aspects with the beneficiaries and 10% in planning, traveling and coordination. The technicians are responsible for an average of 70 beneficiaries. Their responsibilities of assisting individual farmers and attending to other duties could be excessive.

The biggest complaint of the technicians is the amount of time they have to dedicate to administrative duties such as supplies management, payroll and accounting. They feel that they are not adequately prepared to handle these duties and that they detract from their technical work. On one farm one of the beneficiaries is a bookkeeper and he helps out. On another, the teacher assists in supplies management. The technician said that he could not possibly do his work if it were not for the teacher.

The technician is responsible for development of community organization. He may influence the selection of those he feels have leadership qualities. He also participates in the promotion of the program and the selection of beneficiaries.

It is the intention of the Foundation to have at least one teacher on each farm. Besides school duties, teachers will become involved in the organization of community services and adult literacy programs. Teachers and technicians live on the farm. The teacher will be responsible to the technician, but the social worker will not.

The present farm management structure is functioning successfully. Staffing most definitely cannot be reduced. Direct and continuous technical assistance is a key element of the program. The small parcels of land and objectives of the program make high technology farming imperative.

One aspect which has not been fully studied is the eventual transfer of farm management to the local community. Management committees are formed on each farm and administrative duties are increasingly turned over to them. Their direct participation in decision-making is sought from the very beginning. It is hoped that the administrative transfer will occur at the end of five years, although it is doubtful that a complete transfer will be achieved before the end of 10 years when properties are fully repaid.

Given the fact that common productive properties are being set up, common payroll obligations exist, all beneficiaries are individually and jointly responsible legally for production credit, materials handling is centralized, debt payments are to be centralized and marketing may become centralized, considerable managerial responsibilities will exist at the community level. If coffee processing facilities (beneficios) are set up on the farms, an administrator will definitely be necessary. At present, the technician is responsible for handling administrative obligations and preparing the management committee for assuming these responsibilities.

Management is not the area of expertise of the technicians. It detracts from their giving full attention to their technical duties. Materials handling alone takes up to 3 hours each morning. The technicians are now being supported by the agronomists who must spend more time with beneficiaries and less time supervising. More attention is being spent on activities of less specialization.

At present, cost considerations prohibit greater specialization. In the future, as the moment of administrative transfer to the community approaches, the creation of a farm administrative position should be contemplated. The duties of the administrator would include: accounting; materials handling and warehouse control; payroll responsibilities; health promotion coordination

with the Health Director; management of production and sales data; management of processing facilities if established; and management training and preparation of beneficiaries as an organization and as individual entrepreneurs.

On smaller farms this function could be managed by the regional centers. On larger farms having more than 50 beneficiaries this would be a resident, possibly short-term, position. Beneficiaries would be trained and the responsibilities then transferred to them. If processing facilities exist, this would be a permanent post.

Outside support by the Foundation should be needed for no more than a year. At planned land purchase levels, no more than three of these positions will be required, beginning as the farms approach financial independence.

The total cost of these positions would be approximately \$12,000 per year. The benefit is hard to measure. It includes better-quality data, a more successful transition to community management, perhaps a larger span of control of agronomists, and possibly higher productivity due to concentration of technicians on technical aspects.

The present Foundation method for technical assistance and later transfer of the cost to the beneficiaries is appropriate. A bonus system based on farm productivity could be considered. This could be negotiated between the technician and the farm management committee. It would not affect the project. This seems more favorable than giving the technician a parcel of land which might distract his attention from attending to the beneficiaries.

No formal long-term planning exists for the Foundation as whole. In the Division of Land Commercialization, a ten-year cash flow was just developed by Foundation personnel to substantiate the data of the Commercial Land Markets Project design team. The capacity for financial planning exists but principal aspects are often postponed because of attention to other matters.

Ten-year plans, based on constant costs and prices, are drawn up for each farm. These include crop estimates and cash flows. They are being computerized. Present value and internal rates of returns are calculated.

Farm plans are drawn up by the technicians and agronomists. Technical personnel are involved in planning to enable them to better understand the long-term impact of their decisions. The inclusion of the financial/planning manager full-time into the Division should make this function a relative strength of the organization.

Administrative and technical personnel in positions directly and indirectly related to the implementation of the Commercial Land Markets Project were found to be very capable, and well qualified to carry out their responsibilities. No serious deficiencies or problems were encountered in this area.

Personal relationships among employees are very good. No indication whatsoever was given in the interviews and questionnaires of any problems among employees. Some felt that they are somewhat isolated from the employees of other departments and divisions. They indicated a desire to improve interdepartmental contacts and relations.

No problem was encountered in employee motivation. However, no active attention nor official recognition of accomplishments is given to employees. No motivational programs or activities exist.

The biggest problem in the area of staffing is the lack of policies, procedures and job descriptions. There were many comments in the interviews and questionnaires about this lack. This is, indeed, becoming a necessity due to the growth of the Foundation. They are becoming too large to handle personnel relations on an entirely informal basis. The new Assistant General Manager has placed high priority on this problem. He and an assistant will personally attend to this area.

Salaries of top management appear to be adequate. Salaries of middle-level personnel are inconsistent due to the lack of policy and formal study in this area. Raises are determined on the basis of informal interaction between the general manager and division director. No formal evaluations exist.

At the technical level, salaries of agronomists appear to be adequate. Technicians appear to be slightly underpaid given the extent of their activities and obligations. The problem is not serious. Personnel turnover in the division is low. According to the Director, only one or two leave each year. The Division is able to attract highly qualified people with lengthy experience and retain them in the Foundation.

No specific needs for training were encountered except in the areas of computers and accounting. Computer training needs are discussed in another section. Accounting training needs are being attended to by the Assistant General Manager.

There is a need for refresher courses and updating, however. General management concepts and skills could be improved to keep pace with the organizational growth. Training is also an important motivational factor which can be used as a reward for those who are doing exceptional work.

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Management training needs can be met by institutions in Guatemala. At the technical level, training could be used in basic management, leadership development and motivation. Updating of technical knowledge is needed in the area of coffee. A couple of trips should be arranged to the coffee research institutes in Costa Rica and Columbia. Productivity in these countries is much higher than it is in Guatemala. Greater advantage should also be taken of local institutions such as ANACAFE which occasionally offer courses.

Basic financial and systems controls exist in the Penny Foundation and in the Division of Land Commercialization. An annual report has been produced in each of the last two years. The reports include a balance sheet and income statement. The Foundation has also had an external audit undertaken by a reputable accounting firm in each of the past two years. The financial statements were approved with no observations made.

Records are also kept of each principal activity, including land purchasing, credit extension by user and by farm, payroll, payments records and overdue accounts.

Records are also kept for non-monetary activities such as farms visited and rejected, and beneficiary analysis. The purpose is to provide systematic analysis leading to improved decision-making.

The foundation attempts to avoid misuse of funds by involving several people in sensitive activities. The land purchase process involves four hierarchical levels. Credit approval involves four or five levels depending on the amount. The General Manager can approve loans of less than \$2000. The President can approve loans of up to \$4000. A credit committee consisting of 3 Board members approves loans of more than \$4000. This process is somewhat slow. Delays in credit approval are mentioned as a problem by some technical personnel in other programs.

Ways of presentation and report formats are not always appropriate for decision-making. The accounting system is funds related which enables a satisfactory understanding by donors of how their money is being used, but is not always directly applicable to potential problem areas. Overdue accounts, for instance, are based on funding sources and are not centered on programs and personnel involved.

Much of the information does not directly reach the hands of the person who has the time to study it, the talent to interpret it and the authority to respond. Improvement is underway. More and more data are being computerized; new reports are being structured; accounting department training courses are being planned; and the financial department is being reorganized. The details of these actions are discussed in other sections. The result will soon be a system of controls that is highly adequate for the needs of the Commercial Land Markets Project.

100

Analysis of Penny Foundation management systems demonstrates that procedures are basically adequate. Land purchasing is not a bottleneck and no major changes are needed in the beneficiary selection process. The transfer of land titles is a slow process but the problem resides outside the Foundation. No institutional changes can substantially expedite the process. The biggest credit-related problem is in materials procurement and handling.

The Penny Foundation can successfully carry out an expanded project. Change is needed in management practices, but most of the needed changes are now being addressed or being studied. No major changes in organization or personnel are needed.

Care should be taken not to promote excessive land purchasing while disregarding the other key aspects of production credit, education, technical assistance and health. The basic flexibility of the Foundation should be appreciated and nurtured.

In summary, the positions to be staffed or evaluated under the Project are:

Position	Status
Assistant General Manager	Hired
Financial Planning Chief, Commercial Land Markets	Assigned full time
Procurement/Materials Handling Specialist	Hired
Regional Administrators/Accountants	To be hired
Data Processing Department Head	Assigned full time
Data Processing Assistant	To be hired
Civil Engineer, Commercial Land Markets	To be hired
Credit and Personnel Manager (tentative)	To be assigned
Credit Collections Administrator	To be evaluated
Marketing/Export Specialist	To be evaluated
Farm Administrators	To be evaluated
Social Worker (counterpart funded)	To be hired
Health Director (counterpart funded)	To be hired
Teachers (counterpart funded)	to be hired
Technical Housing Personnel (counterpart funded)	to be hired

The Penny Foundation issues annual financial statements for the calendar year. The statements are audited by a local firm affiliated with a U.S. big eight accounting firm. The Foundation's accounting is maintained by funds, according to the operation supported by a fund and the fund's source of credit or donation.

Analysis of the consolidated statements shows donations to be the Foundation's biggest source of income. During 1986, A.I.D.-supported activities accounted for almost \$850,000. This was 54 percent of the Foundation's total annual income and 69 percent of all donations. The next, and only other significant source of funds was for rural housing. Foreign donations in 1986 for housing came to 23 percent of all donations. The Foundation did book an extraordinary gain of about \$47,000 on foreign exchange appreciation.

Foundation expenses were primarily salaries, general administration and interest. Salaries and administration came to \$266,000 or just under 60 percent of total expenses. Salaries and administration, however, were 17 percent of total income, which in the U.S. is a commendable percentage for a non-profit organization. Interest expense came to \$98,000 or 22 percent of total expenses.

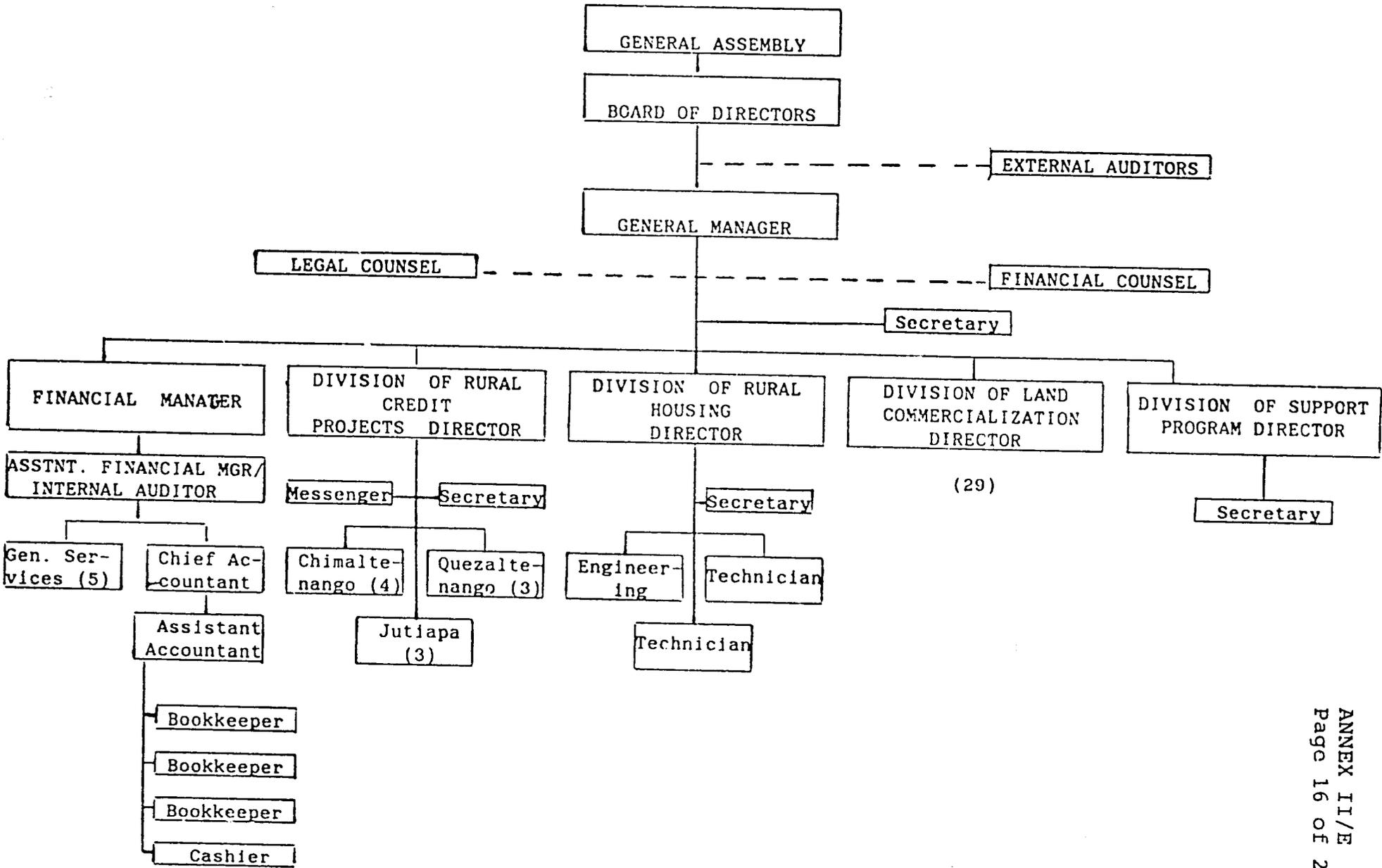
The Foundation's asset side of the balance sheet is heavily weighted with loans receivables and land. Short and long-term loans account for 23 percent of total assets. Land for sale makes up about 33 percent of total assets. An amount for appreciation in dollar dominated securities or currency was added to the asset side of the balance sheet. This came to 12 percent of total assets.

The liability and fund balance side of the balance sheet shows the payments for seller financed land sales to be 29 percent of total liabilities. This percentage has increased 10 percent within a year and will continue to rise as the land purchase program advances. Soft foreign exchange loans make up 39 percent of the total liabilities, bank loans 12 percent and accounts payable nine percent. The Foundation's fund balance has more than doubled, mostly due to the Commercial Land Markets Program.

The Penny Foundation's consolidated balance sheet, income statement and statement of changes in financial position are presented in this ANNEX. They, in effect, demonstrate the growing importance of the Commercial Land Markets II Project in terms of their financial status. The amounts are in Quetzales. The exchange rate to be used in converting to dollars is 2.5 Quetzales to the dollar.

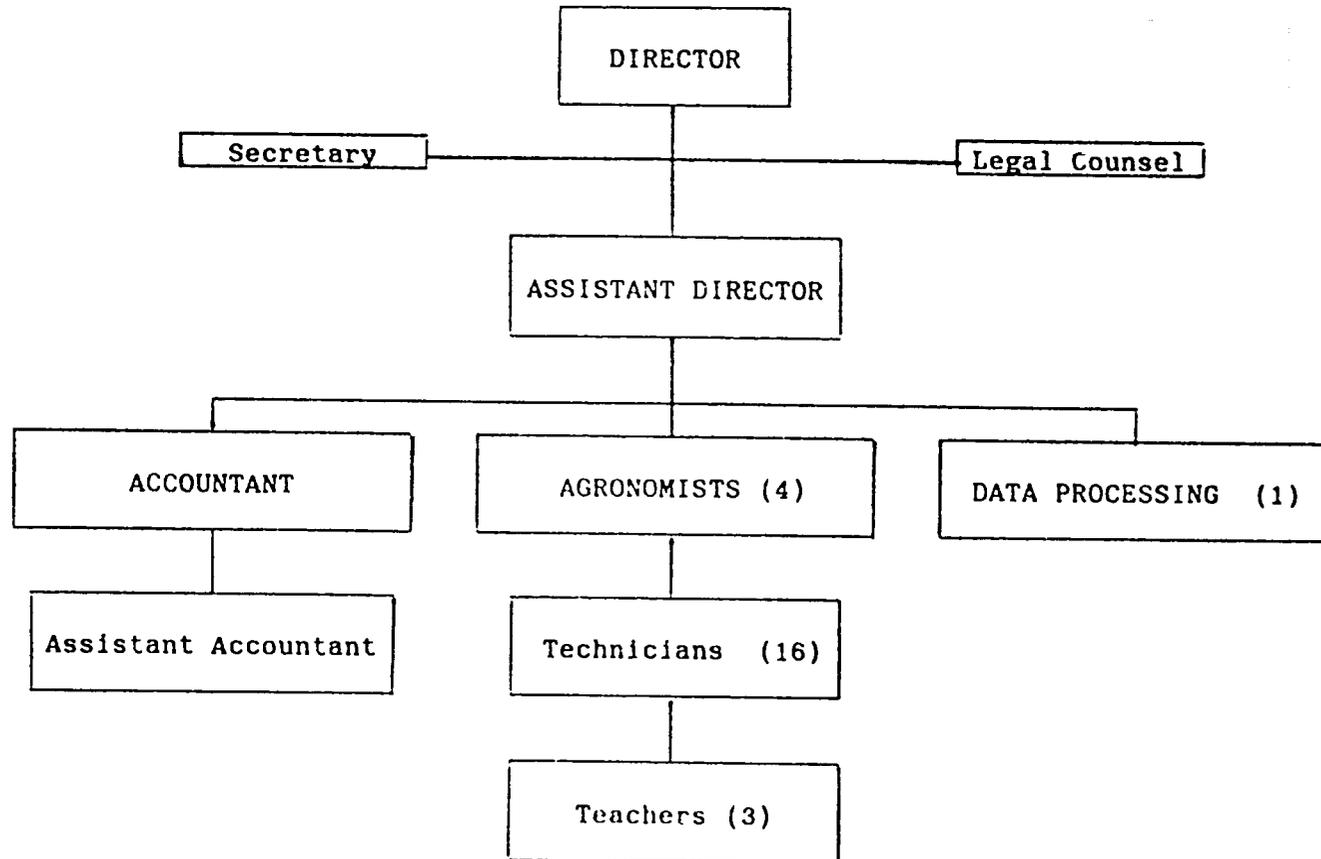
THE PENNY FOUNDATION

ORGANIZATION CHART
(at beginning of 1987)



DIVISION OF LAND COMMERCIALIZATION

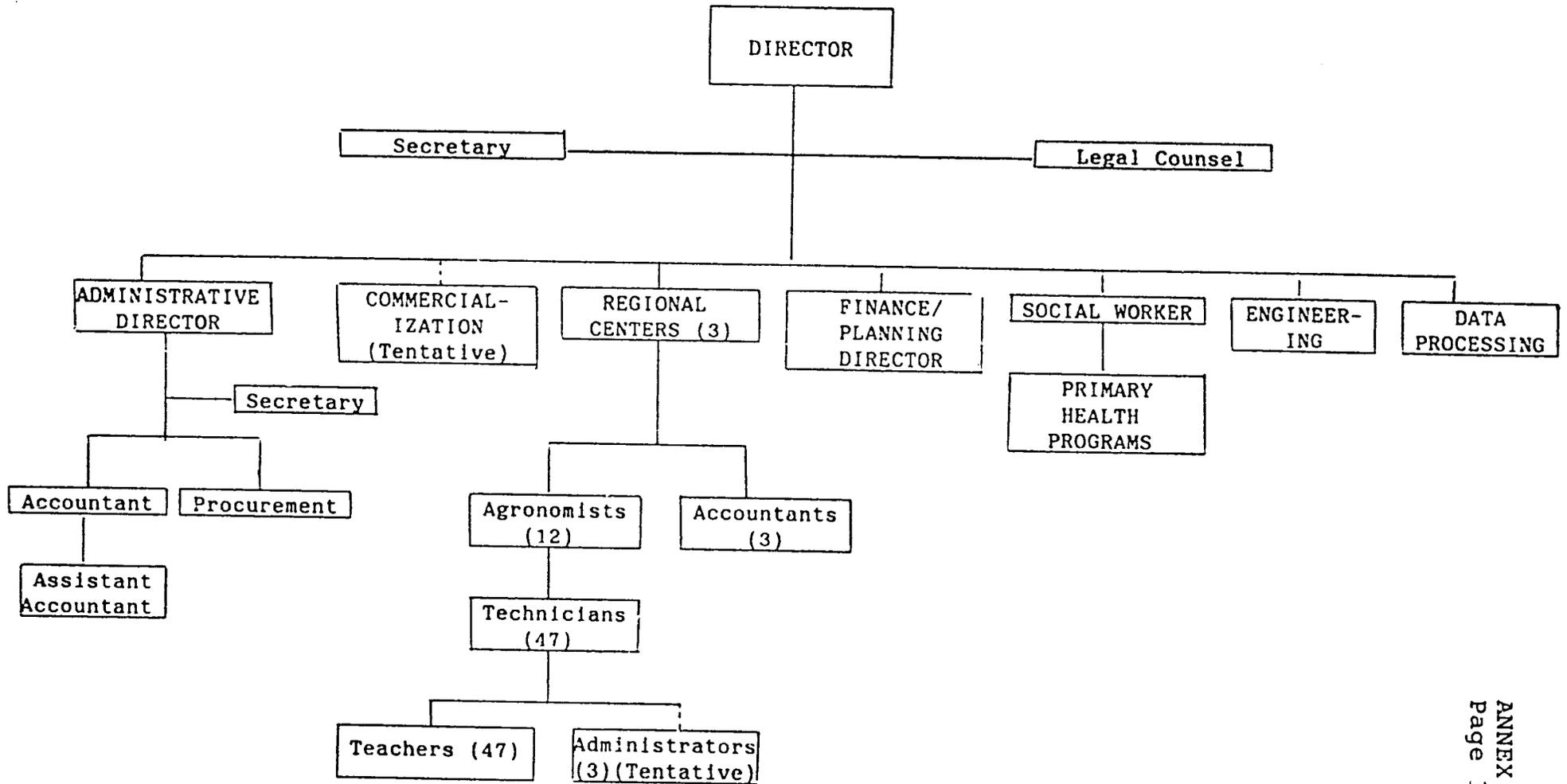
ORGANIZATION CHART
(At beginning of 1987)



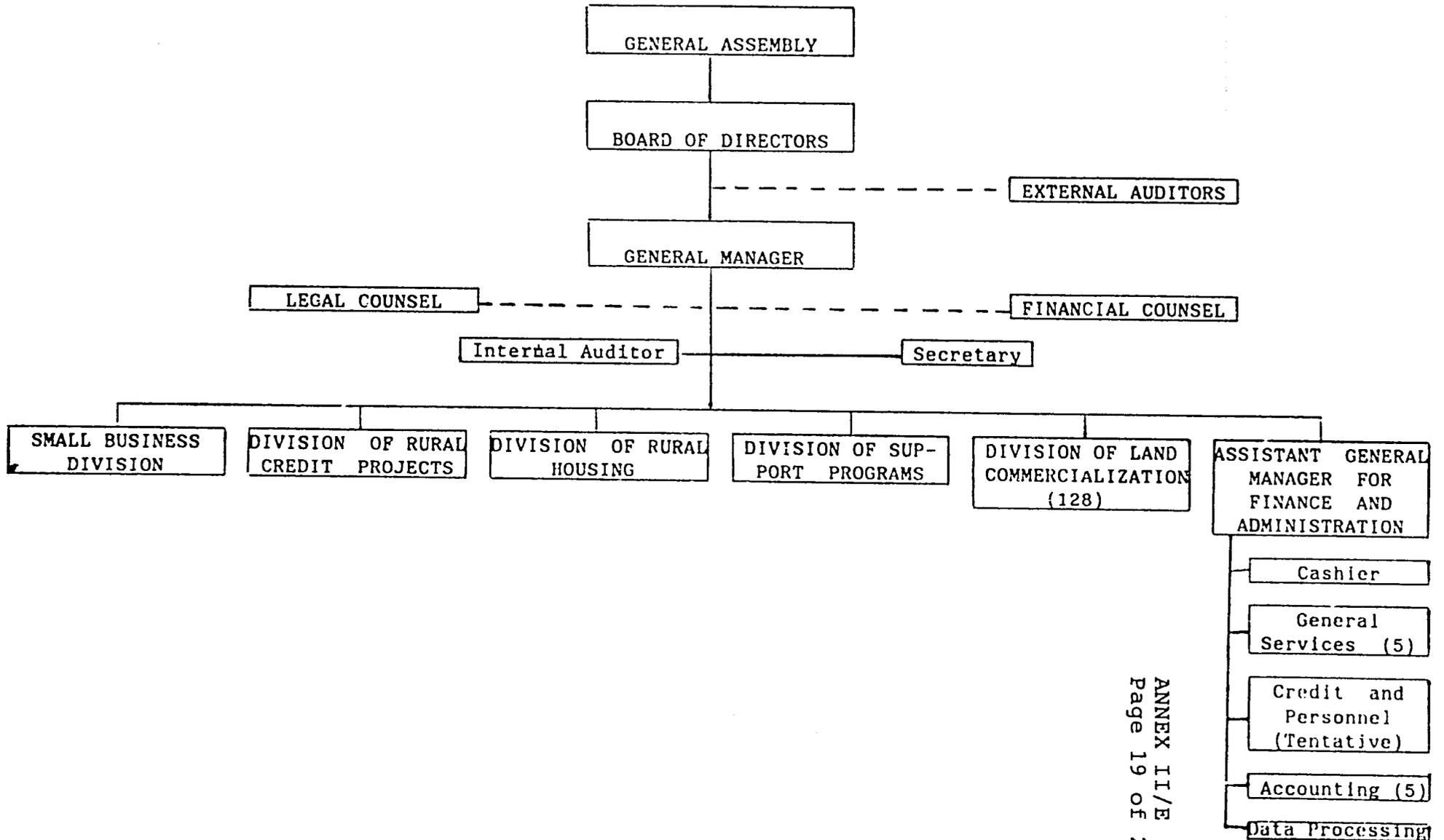
101

DIVISION OF LAND COMMERCIALIZATION

ORGANIZATION CHART
(Projected at end of 5 years)



THE PENNY FOUNDATION
 ORGANIZATION CHART
 (Projected at end of 5 years)



ANNEX II/E
Page 19 of 25

106

FUNDACION DEL CENTAVO
(Fundación Guatemalteca para el Desarrollo)

ESTADO DE ACTIVOS Y PASIVOS

Al 31 de diciembre de 1986 y 1985

(en quetzales - nota 1)

	<u>1986</u>	<u>1985</u>
<u>ACTIVO</u>		
<u>Circulante</u>		
Efectivo en caja y bancos	814,762	467,220
Préstamos	1,234,894	1,141,525
Deudores varios	467,163	510,889
Inventarios	314,604	99,593
Plantaciones	114,193	-
Terrenos para la venta	3,403,140	1,230,789
Gastos anticipados	4,545	3,913
Inversiones	25,800	76,600
	<u>6,379,101</u>	<u>3,530,529</u>
<u>Otros activos</u>		
Inversiones	909,385	756,711
Préstamos a largo plazo		
	1,198,447	882,790
Deudores varios a largo plazo	38,784	36,425
Terrenos en fincas rústicas	264,514	297,126
Construcciones en proceso	65,734	6,833
Otros	-	4,229
	<u>2,476,864</u>	<u>1,984,114</u>
<u>Inmuebles y equipo</u>		
Costo	471,417	285,942
Depreciación acumulada	(174,724)	(93,705)
	<u>296,593</u>	<u>192,236</u>
<u>Cargos diferidos</u>	<u>1,264,580</u>	<u>1,761,552</u>
	10,417,338	7,468,531
	=====	=====

FUNDACION DEL CENTAVO
(Fundación Guatemalteca para el Desarrollo)

ESTADO DE ACTIVOS Y PASIVOS

Al 31 de diciembre de 1986 y 1985

(en quetzales - nota 1)

<u>PASIVO</u>	<u>1986</u>	<u>1985</u>
<u>Obligaciones a corto plazo</u>		
Prestamos de entidades del exterior	615,161	1,072,464
Préstamos bancarios	46,664	46,664
Cuentas varias por pagar	459,406	336,473
Documentos por pagar	379,475	192,200
Anticipos sobre ventas de terrenos en fincas rústicas	<u>157,113</u>	<u>189,610</u>
	<u>1,657,819</u>	<u>1,837,411</u>
 <u>Obligaciones a largo plazo</u>		
Documentos por pagar	1,072,325	360,050
Préstamos de entidades del exterior	1,321,785	1,807,168
Préstamos bancarios	543,228	589,893
Fondo de desarrollo social	<u>112,220</u>	<u>112,220</u>
	<u>3,049,558</u>	<u>2,869,331</u>
 <u>Otros pasivos</u>		
Ingresos por realizar	96,326	71,710
Provisión para indemnizaciones	80,690	73,030
Provisión seguro de vida	<u>37,280</u>	<u>40,160</u>
	<u>214,296</u>	<u>184,900</u>
Suma pasivo	<u>4,921,673</u>	<u>4,391,642</u>
 <u>FONDO SOCIAL</u>		
Fondo social al inicio del año	2,575,389	1,356,433
Excedente de ingresos sobre gastos del período	<u>2,913,776</u>	<u>720,451</u>
	<u>5,495,565</u>	<u>2,576,889</u>
	<u>10,417,338</u>	<u>7,468,531</u>
	=====	=====

102

FUNDACION DEL CENTAVO

(Fundación Guatemalteca para el Desarrollo)

ESTADO DE INGRESOS Y GASTOS

Del 1o. de enero al 31 de diciembre de 1986 y 1985

(en quetzales - nota 1)

	<u>1986</u>	<u>1985</u>
<u>Ingresos</u>		
Beneficio en venta de medallas	70,496	21,561
Donaciones	3,073,370	1,058,838
Intereses por depósitos de ahorro y certificados	261,972	250,319
Intereses sobre préstamos	180,241	94,493
Asistencia técnica	1,149	31,476
Productos agrícolas y otros	335,007	21,827
	<u>3,922,235</u>	<u>1,478,514</u>
<u>Gastos</u>		
Costo de productos agrícolas	48,829	-
Sueldos y prestaciones	342,984	217,272
Intereses sobre préstamos	246,595	230,486
Gastos generales	322,754	274,721
Cuentas de dudosa recuperación	99,616	70,667
Depreciaciones	60,071	26,589
	<u>1,120,849</u>	<u>819,735</u>
Diferencia en cambio de moneda	<u>117,390</u>	<u>61,672</u>
Excedente de ingresos sobre gastos	2,918,776 =====	720,451 =====

FUNDACION DEL CENTAVO

(Fundación Guatemalteca para el Desarrollo)

ESTADO DE CAMBIOS EN LA SITUACION FINANCIERA

Del 1o. de enero al 31 de diciembre de 1986 y 1985

(en quetzales - nota 1)

	<u>1986</u>	<u>1985</u>
<u>I Los recursos financieros fueron provistos por:</u>		
Operaciones		
Excedente de ingresos sobre gastos	2,918,776	720,451
Más: cargos (menos créditos) a ingresos y gastos que no requirieron capital de trabajo:		
Depreciaciones	58,308	26,589
Indemnizaciones	25,343	16,726
Pérdida en activos fijos	2,633	-
Provisión por seguro de vida		3,990
Utilidad realizada en venta de tierras	<u>(40,644)</u>	<u>(11,177)</u>
	<u>2,964,416</u>	<u>756,579</u>
Préstamos del exterior	282,392	1,647,481
Documentos por pagar a largo plazo	712,275	352,050
Reclamo de seguro vehículo	39,242	26,900
Aumento de ingresos por realizar	65,260	
Disminución de deudores varios a largo plazo	-	7,557
Otros	4,229	27,097
Diferencia en cambio de moneda	496,972	-
Recuperación en ventas de tierras	32,612	-
Recuperación valor certificado de garantía	<u>26,500</u>	<u>-</u>
	4,623,898	2,817,564
Disminución del capital de trabajo	<u>-</u>	<u>998,151</u>
	<u>4,623,898</u>	<u>3,815,715</u>
	=====	=====

FUNDACION DEL CENTAVO

(Fundación Guatemalteca para el Desarrollo)

ESTADO DE CAMBIOS EN LA SITUACION FINANCIERA

Del 1o. de enero al 31 de diciembre de 1986 y 1985

(en quetzales nota 1)

	<u>1986</u>	<u>1985</u>
II <u>Los recursos financieros fueron aplicados a</u>		
Inversiones en valores	299,174	752,711
Provisión de pago para préstamos a largo plazo	814,440	912,639
Aumento de préstamos por cobrar a largo plazo	315,657	238,706
Adquisición de bienes fijos	204,640	123,709
Pago de indemnizaciones	17,683	6,310
Préstamos incobrables	2,880	19,035
Construcciones de proceso y otros	58,901	-
Aumento de deudores a largo plazo	2,359	-
Diferencia en cambio de moneda	-	1,761,652
Disminuciones de ingresos por realizar	-	1,053
	<u>1,715,734</u>	<u>3,815,815</u>
 <u>Ajustes del capital de trabajo</u>		
Caja y bancos	<u>(120,000)</u>	<u>-</u>
	1,595,734	3,815,815
 Aumento del capital de trabajo	<u>3,028,164</u>	<u>-</u>
	4,623,898	3,815,815
	=====	=====

111

FUNDACION DEL CENTAVO

(Fundación Guatemalteca para el Desarrollo)

ESTADO DE CAMBIOS EN LA SITUACION FINANCIERA

Del 1o. de enero al 31 de diciembre de 1986 y 1985

(en quetzales - nota 1)

	<u>1986</u>	<u>1985</u>
III <u>Variación del capital de trabajo</u>		
Aumento (disminución) en el activo circuante:		
Efectivo en caja y bancos	347,542	(1,308,135)
Préstamos	93,369	18,097
Deudores varios	(43,726)	393,357
Inventarios	215,011	(41,170)
Plantaciones	114,193	-
Terrenos para la venta	2,172,351	1,178,789
Gastos anticipados	632	(1,940)
Inversiones	(50,800)	50,800
	<u>2,848,572</u>	<u>289,798</u>
 (Aumento) disminución en las obligacio- nes a corto plazo:		
Préstamos de entidades del exterior	457,303	(773,878)
Cuentas varias por pagar	(122,933)	(266,677)
Documentos por pagar	(187,275)	(184,200)
Préstamos bancarios	-	(33,332)
Anticipos sobre ventas de terrenos en fincas rústicas	32,497	(29,362)
	<u>179,592</u>	<u>(1,287,949)</u>
 Aumento (disminución) del capital de trabajo	 3,028,164	 (998,151)
	=====	=====

112

Financial Analysis

The purpose of the Financial Analysis is to assess the financial feasibility of providing additional funding to the Penny Foundation. Two financial issues are critical for the success of the land purchase program. The first is the profitability of the parcels. Will the parcels generate enough income so the families are able to repay the production and land credit? The second issue is the financial viability of the Penny Foundation. Can the Foundation operate by financing half of its land purchases over a short-term and lend to its beneficiaries over a long-term.

Small Farm Profitability

In general, the Penny Foundation organizes two kinds of family-sized parcels, those that cultivate vegetables and a food crop; and those that plant permanent crops and a food crop. The vegetable parcels are located in the Altiplano; are more expensive; are relatively smaller; require only short-term production loans; and begin land repayments the first year. The coffee and cacao parcels are located throughout the country. They are quite large but less expensive, and thus accommodate more beneficiaries. The problem is these parcels need substantial amounts of long-term production credit for inputs and labor, which draws on the capital resources of the Penny Foundation. This creates a cash flow problem for the Penny Foundation because these families are unable to repay the production and land loans for four years.

Fortunately, the Penny Foundation has three-years experience so data are available for analyzing the parcel profitability and debt servicing capacity of the individual parcels. To analyze the repayment capacity three crops are presented, coffee, pineapple and broccoli.

One of the most typical types of family parcels established by the Penny Foundation is a 2.75 hectares parcel where 2 ha. are dedicated to coffee and .75 are planted in basic grains. When the Penny Foundation buys farms which have been idle for a number of years, a large capital investment is required over a period of several years before the resulting parcels sell enough coffee beans to repay the debt. During this period, the families must survive on three sources of income:

1. They receive a wage income for one-half their total labor. For example, if a male participant works 30 days on the coffee project and the daily wage is Q3.20, then he earns 15 days wages, which are financed with long-term credit.

2. The corn production serves as both a consumption and a commercial product.
3. The beneficiaries are allowed to seek off-farm wage income during slack work periods.

Table 1 provides an example. At a Q3.20 wage per day for coffee labor, the beneficiaries are allowed to borrow Q525.00 per hectare, or Q1,050 if they have 2 hectares of coffee. This debt accumulates along with other production debt until some coffee beans are sold at the end of the third year.

While this is only a bare subsistence income, in combination with the food crops and off-farm income the participants are slightly better off than before they joined the program. The average rural family income for 1986 is Q1,500 (USAID, 1987). Estimates for Guatemala indicate that a family of five can obtain an adequate diet with a one-half hectare piece of land (Kennedy, 1984). The beneficiaries' incomes are only just above the average rural income levels during the project's first years.

Table 1 provides an overview of estimated costs and returns for one hectare of coffee planted on barren land. Production expenses are very high the first few years. The beneficiary goes into debt Q5,968 by the end of the second year (Q11,936 for a 2 ha. coffee parcel). By the end of the fourth year, the accumulated production loans and interest is retired. The land payments begin at the end of year five. The very high land payment in the sixth year is due to the accumulated interest charges. By the seventh year, a farm family will be earning nearly Q7,000, not including in-kind and commercial income from the .75 ha corn crop.

To determine the profitability and value of a farm, the Penny Foundation personnel must appraise each individual property offered for sale. Two different appraisal methods are commonly used. The comparable sales method uses the selling price of a similar farm to arrive at a reasonable market price. Since no two farms are exactly alike, the previous sale must be adjusted to reflect different characteristics. This method is useless for the Penny Foundation project. Because the market value of a farm may reflect nonagricultural factors. Speculators, for instance, may be buying up agricultural land for development as an urban zone some time in the future.

The second approach, income capitalization, is appropriate for the land purchase program. Income capitalization is a procedure which projects the annual net return from a farm property by subtracting the estimated labor and input costs from gross income to provide an annual flow of income to land. The residual is used to estimate the market value of the farm by capitalizing the return to land. The discount rate is the profit rate an investor would require.

To date, the Penny Foundation has not paid more than Q1,800 per hectare for farmland they have subdivided into coffee parcels. The appraised market value of the one-hectare coffee parcel in Table 1 is Q7,944. To determine the market value, the net return to land after the third year, Q3,295, is divided by 20% (the interest rate a smart investor could earn lending money inside the country). The present value of this number is Q7,944.

The example in Table 1, estimates that over the next few years the maximum price for farms which will be converted into coffee production is Q2,500. For the 1 ha example in Table 1, the maximum price the Penny Foundation should pay is Q7,944 per hectare. Even assuming, the beneficiaries have to pay for technical assistance after they become self-sufficient, the appraised value is Q7,040 (calculating the technical assistance costs at Q375 per family).

Using the income capitalization approach to appraise the land cultivated in pineapple and broccoli (Table 2 and Table 3), yields similar results. Pineapple is a semipermanent crop, with decreasing yields over a three-year period. It takes about 18 months to produce the first crop. Many Penny Foundation farms will be producing coffee, pineapple, and corn in combination. Parcels will have 2 ha of coffee, .5 ha of pineapple, and .25 ha of corn. The example in Table 2 demonstrates that the expected benefits from pineapple will bring about immediate results, netting a family Q1,888 only eighteen months after planting (Q944 for .5 ha), and Q3,009 the second year (Q1,505) for .5 ha.

A typical vegetable farmer in the Altiplano will have 2 ha with the Penny Foundation project. The majority of these parcels are capable of producing 2 crops of broccoli, or some other vegetable, and one corn crop in a single year. Obviously, this land is much more expensive. The Penny Foundation has had to pay up to Q6,000 per hectare for good properties in the Altiplano. The example in Table 3 demonstrates that even if the price per ha climbed to Q7,000, and product and input prices remained unchanged, the net crop income is adequate to meet the land payments. The appraised value of the land in Table 3 is Q15,985 per ha.

The vegetable farms are attractive to the Penny Foundation because they only require short-term credit, usually about 4 months, and begin land repayments the first year of the project. But, they are also much more expensive, and will not accommodate as many beneficiaries as the coffee farms.

Assuming that product and input prices do not move too drastically in the wrong direction, and that estimated production levels do not fall more than 40%, and given a continuation in the present structure of Guatemalan agriculture, the small farms established by the Penny Foundation are

TABLE 1
 REPAYMENT CAPACITY FOR ONE HECTARE OF COFFEE
 (Quetzales)
 2.5 Quetzales to 1 U.S. dollar

	Year									
	1	2	3	4	5	6	7	8	9	10
Production Expenses	4,132	1,340	2,028	3,185	3,185	3,185	3,185	3,185	3,185	3,185
Accrued Expenses	4,132	5,968	5,084	2,500	0	0	0	0	0	0
Land Payments ^a	0	0	0	0	400	2,200	780	710	640	570
Coffee Sales	0	0	3,628	6,480	6,480	6,480	6,480	6,480	6,480	6,480
Net Income	(4,132)	(1,340)	1,600	3,295	3,295	3,295	3,295	3,295	3,295	3,295
Ending Balance	(4,132)	(5,968)	(5,084)	(2,500)	282	1,095	2,515	2,585	2,655	2,725
Net Family Income ^b	525	190	598	770	934	1,994	3,414	3,484	3,554	3,624

^a The price for one hectare of coffee land is Q 2,500.
 The interest rate for land and production credit is 14%.

^b Net family income includes one-half of the labor cost which are covered by production credit.

TABLE 2

REPAYMENT CAPACITY FOR ONE HECTARE OF PINEAPPLE

(Quetzales)

2.5 Quetzales to 1 U.S. dollar
Year

	1	2	3	4	5	6	7	8	9	10
Production Expenses	5,397	3,488	2,920	5,397	3,488	2,920	5,397	3,488	2,920	5,397
Land Payments ^a	600	565	530	495	460	425	390	355	320	285
Pineapple Sales	7,200	6,750	5,400	7,200	6,750	5,400	7,200	6,750	5,400	7,200
Net Crop Income	1,803	3,262	2,480	1,803	3,262	2,480	1,803	3,262	2,480	1,803
Net Farm Income ^b	1,203	2,697	1,950	1,308	2,802	2,055	1,413	2,907	2,160	1,518
Net Family Income ^c	1,888	3,009	2,262	1,993	3,114	2,367	2,098	3,219	2,472	2,203

^a The price for one hectare of pineapple land is Q 2,500.
The interest rate for land and production credit is 14%

^b Net farm income is equal to net crop income less land payments.

^c Family income includes one half the total labor costs which are financed with production credit

TABLE 3

REPAYMENT CAPACITY FOR ONE HECTARE OF BROCCOLI

(Quetzales)

2.5 Quetzales to 1 U.S. dollar

Year

	1	2	3	4	5	6	7	8	9	10
Production Expenses	5,217	5,217	5,217	5,217	5,217	5,217	5,217	5,217	5,217	5,217
Land Payments ^a	1,680	1,582	1,484	1,386	1,288	1,190	1,092	994	896	798
Broccoli Sales	8,414	8,414	8,414	8,414	8,414	8,414	8,414	8,414	8,414	8,414
Net Crop Income	3,197	3,197	3,197	3,197	3,197	3,197	3,197	3,197	3,197	3,197
Net Farm Income ^b	1,517	1,615	1,713	1,811	1,909	2,007	2,105	2,203	2,301	2,399
Net Family Income ^c	2,399	2,497	2,595	2,693	2,791	2,889	2,987	3,085	3,183	3,281

^a The price for one hectare of broccoli land is Q 7,000.
The interest rate for land and production credit is 14%.

^b Net farm income is equal to net crop income less land payments.

^c Family income includes one half the total labor costs which are financed with production credit.

financially sound and profitable. The problem is whether the Penny Foundation can avoid a negative cash flow while waiting on the credit reflows from the permanent crops.

Penny Foundation Financial Viability

The Penny Foundation has flexible credit policies tailored to the needs of the beneficiaries participating in the Project. Many beneficiaries come into the program with few to no assets. Consequently, the Penny Foundation postpones the repayment of credit and mortgage for many of the beneficiaries until they have an income from which to make payments. The Foundation maintains this flexible policy because the population it serves needs it. The Penny Foundation is after all, a non-profit development organization, not a commercial real estate developer.

While the Foundation's flexible credit policies meet the needs of the landless poor, they make the Foundation's financial planning difficult and critical. The Foundation has the seller finance half of each land purchase over a five-year period. It pays the seller with its collections of credit and mortgage from the beneficiaries. Since the beneficiaries have 10 years to pay back their mortgages, many with a grace period, and several years to pay back their long-term production credit, the Foundation has to carefully limit its annual debt to sellers in accordance with its annual rate of recuperations.

The original AID grants of \$3 million allowed the Foundation to buy nearly 4,000 hectares of land. While this has been a social success for the more than 600 families buying parcels, the financial position of the Foundation's land purchase program has been compromised. The payments on the original 4,000 hectares along with the farm support costs will exceed the land program's cash income over the next few years. Without continued AID support, the program would experience a cash crisis.

The purpose of the original grant project was to establish a mechanism to permit small farmers to purchase arable lands. The mechanism was expected to be made self supporting and cover cash shortages by having the Penny Foundation market mortgage bonds in the Guatemalan financial market. This did not happen, and even if it had, would not have made the Penny Foundation self supporting (see Technical Analysis). Because the Foundation works with rural landless who need long-term credit with grace periods, the Penny Foundation can use the Guatemalan capital markets only as a source of short-term funding to cover cash deficits.

The local market for selling debt instruments sets the terms at five years with an interest rate of anywhere from 12 to 16 percent for top quality securities. For this financing to be useful, the Foundation would have to charge its beneficiaries interest costs above 16 percent and collect payment

over a shorter payback period. The families now benefitting from the program could not sustain these additional costs. With the existing successful Project, the use of local capital market financing by the Penny Foundation for its program, would exacerbate the existing problem of borrowing short and lending long. The additional debt servicing would stall or reduce the program if the beneficiary credit and mortgage recuperations were sufficient to service the additional bond debt, and end the program if they were not.

Consequently, the objective of the financial analysis is to structure the Project so that the Penny Foundation's land program would be self supporting at Foundation and Mission agreed upon levels of annual land purchases. Pro forma cash flow analyses were developed to ascertain the amount of funding necessary to make the Penny Foundation self supporting by 1991 with a capability to continuously purchase well over 1,000 hectares of land per year. The pro forma analyses used actual Project cost data for 1985 and 1986. Assumptions and background information for the projections included:

Land will be bought at an average of \$900 per hectare. Land prices will be subject to inflation of 7 percent per year. Project average to date for land purchases has been \$513.

Cost of farmer production will rise at five percent per year.

The amount of land requiring production credit will increase from 45 to 60 percent as more land goes into production.

The crop mixes, seasonal and permanent, will be in the same proportion as they have been over the past three years.

AID funds are used for parcel and production credit.

Penny Foundation pays interest and principal on seller financed land purchases.

Farmers with their land in seasonal crops repay their production credit in the following year.

Farmers with land in seasonal crops amortize land payments with simple interest beginning year after loan is made.

Farmers with land in permanent crops have a three year grace period and then amortize their land debt over 10 years.

Farmers with land in permanent crops have a three year grace period and repay the debt with interest in the fourth year.

120

Credit and land default payments are zero. The Foundation will foreclose and resell producing farms in default. Farm beneficiaries are jointly liable for production credit. Expected parcel income would have to drop 40 percent before farmer debt level would begin to affect debt repayment capacity.

Of the cash flow projections developed, three were selected for presentation. Based on the analyses, an additional AID grant to the Penny Foundation of \$7.75 million is recommended. With the original grants (520-0343) of \$2 million and the \$1 million in research, the total Project funding will come to \$10 million. Under this proposal (see Table 4), grant funding would be used to establish maximum annual land purchases of 1360 hectares per year. This is the average annual level of purchases the Penny Foundation can sustain on a self supporting basis. Exceeding this annual level of land purchases without a larger grant will raise debt levels higher than the Penny Foundation can efficiently manage.

Original Project budgeting contemplated a follow-on grant of \$4 million for the Penny Foundation (see Table 5). With the Penny Foundation's impending cash deficit, though, the amount of funding available for annual land sales was under 900 hectares per year on a self-supporting basis. This was considered too low a level of annual activity given the size of the landless problem and the Foundation's capability.

Finally, the analysis considered funding of the Penny Foundation at \$4 million in grant funds and \$2 million from the sale of mortgage or investment bonds (see Table 6). This analysis assumed the best conditions for the Foundation to issue bonds in Guatemala: bonds would be sold at face value; interest rate payments would be compounded at 12 percent and deferred until maturity; and maturity would be five years. To avoid a cash crisis and service its additional bond debt, the Foundation's annual level of land purchases would be limited to 600 hectares.

In sum, the Penny Foundation can expand its program in a self-supporting manner if it finances its operations from capital (fund balance) and closely monitors its debt. With additional grant funding of \$7 million for the land purchase component of the Project, the Penny Foundation could purchase over 10,000 hectares by the end of the Project and continue annual purchases of about 1300 hectares on into the future.

Because the viability of the Foundation's land purchase program depends on its debt, the Foundation's financial information and management reports become critical to the program's success.

CASH FLOW ANALYSIS: OPTION 1 - 12 MIL IN 1988 AND 1989, -- BUY 890 HECTARES/YEAR

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
PRICE/HECTARE	309	480	581	900	954	1,011	1,072	1,136	1,204	1,277	1,353	1,434
HECTARES BOUGHT PER YEAR	1,465	1,377	1,063	890	890	890	890	890	890	890	890	890
CUMULATIVE HECTARES BOUGHT	1,465	2,842	3,905	4,795	5,685	6,575	7,465	8,355	9,245	10,135	11,025	11,915
CASH INFLOW												
BONDS												
PRODUCTION CREDIT INTEREST	0	1,982	10,529	31,221	53,426	129,946	236,020	242,124	293,659	351,089	414,985	485,976
PRODUCTION CREDIT PRINCIPAL	13,938	17,861	31,904	260,178	385,567	1,005,630	1,847,730	1,729,455	2,077,567	2,507,778	2,964,195	3,471,260
LAND SALES DOWN PAYMENT	9,067	18,727	12,352	16,020	16,981	18,000	19,080	20,225	21,438	22,725	24,063	25,533
LAND SALES PRINCIPAL	0	22,589	69,242	100,014	169,131	269,693	351,961	450,938	519,839	654,777	762,619	814,349
LAND SALES INTEREST	0	54,403	164,056	229,859	359,356	478,868	583,861	683,902	770,695	852,630	929,416	1,014,559
TOTAL CASH INFLOW	23,005	115,562	288,084	637,293	983,461	1,901,137	3,038,702	3,126,643	3,733,249	4,368,998	5,075,545	5,829,678
CASH OUTFLOW												
AID FUNDS												
CASH PURCHASE OF LAND	226,679	468,180	308,802	400,500	424,530	450,002	477,007	505,622	535,959	568,117	602,204	639,336
PRODUCTION CREDIT LOANS	13,938	231,940	687,742	930,214	1,202,315	1,506,998	1,847,490	2,227,311	2,650,305	3,120,665	3,639,255	4,207,520
ADMINISTRATIVE COSTS	13,239	19,859	67,816	96,846	94,846	94,846	94,846	94,846	94,846	94,846	94,846	94,846
MOTORCYCLES				7,500	6,000	7,500	6,000	7,500	6,000	7,500	6,000	7,500
TECHNICAL ASSISTANCE	24,585	36,879	130,550	159,120	183,600	220,320	244,800	273,360	297,840	326,400	353,880	379,440
TOTAL AID OUTFLOW	278,441	756,858	1,194,920	1,594,180	1,911,291	2,279,666	2,670,138	3,108,640	3,554,951	4,117,528	4,772,185	5,467,503
COUNTERPART FUNDS												
INTEREST AND PRINCIPAL ON BONDS												
CERTIFICATE PRINCIPAL PAYMENT	0	45,336	139,972	260,732	280,832	365,738	410,403	412,167	451,531	478,623	507,340	417,340
CERTIFICATE INTEREST PAYMENT	0	20,401	58,457	73,742	91,721	104,654	112,237	118,231	126,642	134,211	142,293	96,635
POOR WHEEL DRIVE VEHICLES				8,000	8,000	16,000	8,000	8,000	8,000	8,000	8,000	8,000
TOTAL COUNTERPART OUTFLOW	0	65,737	197,429	262,474	380,553	486,392	530,640	538,398	566,173	620,864	657,636	521,975
TOTAL CASH OUTFLOW	278,441	822,595	1,392,349	1,876,654	2,291,844	2,766,058	3,200,778	3,647,038	4,171,125	4,738,392	5,029,821	5,179,477
CASH INFLOW	23,005	115,562	288,084	637,293	983,461	1,901,137	3,038,702	3,126,643	3,733,249	4,368,998	5,075,545	5,829,678
CASH OUTFLOW	278,441	822,595	1,392,349	1,876,654	2,291,844	2,766,058	3,200,778	3,647,038	4,171,125	4,738,392	5,029,821	5,179,477
NET CASH FLOW	(255,436)	(707,033)	(1,104,265)	(1,239,362)	(1,308,383)	(864,922)	(162,076)	(520,395)	(437,876)	(369,394)	65,724	450,201
	(255,436)	(962,470)	(2,066,735)	(3,306,096)	(4,614,479)	(5,479,401)	(5,641,477)	(6,161,872)	(6,599,748)	(6,969,142)	(6,803,418)	(6,353,216)
BEGINNING CASH POSITION	0	23,005	72,830	163,484	518,303	1,121,211	1,520,599	1,358,523	838,128	400,252	50,858	116,582
NET CASH FLOW	(255,436)	(707,033)	(1,104,265)	(1,239,362)	(1,308,383)	(864,922)	(162,076)	(520,395)	(437,876)	(369,394)	65,724	450,201
END CASH POSITION BEFORE GRANTS	(255,436)	(684,028)	(1,031,435)	(1,075,877)	(790,080)	256,290	1,358,523	838,128	400,252	50,858	116,582	566,784
AID GRANTS AVAILABLE												
AVAILABLE B.O.V.	0	721,359	964,701	769,781	1,175,600	1,264,309	0	0	0	0	0	0
NEW INFUSION	1,000,000	1,000,000	1,000,000	2,000,000	2,000,000							
AVAILABLE AFTER INFUSION	1,000,000	1,721,359	1,964,701	2,769,781	3,175,600	1,264,309	0	0	0	0	0	0
USED	278,441	756,858	1,194,920	1,594,180	1,911,291	2,279,666	2,670,138	3,108,640	3,584,951	4,117,528	4,772,185	5,467,503
TOTAL AID GRANTS AVAILABLE EOY	721,359	964,701	769,781	1,175,600	1,264,309	0						
AID GRANT USED												
TOTAL AID GRANT USED	278,441	756,858	1,194,920	1,594,180	1,911,291	1,264,309	0	0	0	0	0	0
CUMULATIVE AID GRANTS USED	278,441	1,035,299	2,230,219	3,824,400	5,735,691	7,000,000						
TOTAL NET POSITION AFTER GRANTS	23,005	72,830	163,484	518,303	1,121,211	1,520,599	1,358,523	838,128	400,252	50,858	116,582	566,784

CASH FLOW ANALYSIS: OPTION 3 -- 42 MIL IN 1988 AND 1989, ISSUE 5 YEAR 42MIL BONDS IN 1990 -- BUY 565 HECTARES/YEAR

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
PRICE/HECTARE	309	480	581	900	954	1,011	1,072	1,136	1,204	1,277	1,353	1,434
HECTARES BOUGHT PER YEAR	1,465	1,377	1,063	565	565	565	565	565	565	565	565	565
CUMULATIVE HECTARES BOUGHT	1,465	2,842	3,905	4,470	5,035	5,600	6,165	6,730	7,295	7,860	8,425	8,990
CASH INFLOW												
BONDS												
PRODUCTION CREDIT INTEREST	0	1,982	10,529	31,221	49,402	121,357	222,271	196,106	230,942	289,426	312,557	360,048
PRODUCTION CREDIT PRINCIPAL	13,938	17,861	31,904	260,178	357,621	944,282	1,749,579	1,400,756	1,649,587	1,925,901	2,232,337	2,571,773
LAND SALES DOWN PAYMENT	9,067	18,727	12,352	10,170	10,780	11,427	12,113	12,839	13,610	14,426	15,292	16,209
LAND SALES PRINCIPAL	0	22,599	69,242	100,014	153,557	238,671	305,564	368,397	431,215	497,801	569,421	649,103
LAND SALES INTEREST	0	54,403	164,056	229,859	317,406	396,552	459,736	511,747	555,348	595,855	633,114	660,128
TOTAL CASH INFLOW	21,005	115,562	288,084	631,443	889,966	3,712,289	2,749,263	2,489,846	2,880,702	3,303,620	3,759,691	4,107,261
CASH OUTFLOW												
AID FUNDS												
CASH PURCHASE OF LAND	226,679	468,180	308,802	254,250	269,505	285,675	302,816	320,985	340,244	360,658	382,293	405,236
PRODUCTION CREDIT LOANS	13,938	231,940	687,742	854,228	1,040,151	1,247,418	1,478,109	1,734,495	2,019,051	2,334,478	2,686,598	3,072,725
ADMINISTRATIVE COSTS	13,239	19,859	67,816	96,846	94,846	94,846	94,846	94,846	94,846	94,846	94,846	94,846
MOTORCYCLES				4,500	4,500	4,500	3,000	4,500	4,500	4,500	4,500	4,500
TECHNICAL ASSISTANCE	24,585	36,879	130,560	150,960	171,360	183,600	204,000	220,320	232,560	252,960	273,360	293,760
TOTAL AID OUTFLOW	278,441	756,858	1,194,920	1,360,784	1,580,362	1,816,039	2,084,271	2,373,646	2,691,201	3,047,443	3,421,602	3,811,667
COUNTERPART FUNDS												
INTEREST AND PRINCIPAL ON BONDS												
CERTIFICATE PRINCIPAL PAYMENT	0	45,336	138,972	200,732	251,562	305,483	317,282	284,210	269,646	303,845	322,076	341,941
CERTIFICATE INTEREST PAYMENT	0	20,401	58,457	73,742	78,558	80,171	78,389	77,087	80,397	85,220	90,334	94,347
FOUR WHEEL DRIVE VEHICLES				8,000	8,000	0	8,000	8,000	0	8,000	8,000	8,000
TOTAL COUNTERPART OUTFLOW	0	65,737	197,429	282,474	338,141	385,655	403,671	369,296	367,043	397,065	4,621,072	334,287
TOTAL CASH OUTFLOW	278,441	822,595	1,392,349	1,643,258	1,918,503	2,201,694	2,487,942	2,742,942	3,058,244	3,444,508	3,812,675	4,145,954
CASH INFLOW	21,005	115,562	288,084	631,443	889,966	3,712,289	2,749,263	2,489,846	2,880,702	3,303,620	3,759,691	4,107,261
CASH OUTFLOW	278,441	822,595	1,392,349	1,643,258	1,918,503	2,201,694	2,487,942	2,742,942	3,058,244	3,444,508	3,812,675	4,145,954
NET CASH FLOW	(255,436)	(707,033)	(1,104,265)	(1,011,816)	(1,029,537)	1,510,594	261,321	(253,096)	(177,542)	(140,888)	(4,053,004)	371,307
BEGINNING CASH POSITION	0	23,005	72,830	163,484	512,453	1,063,278	4,389,912	4,663,828	4,410,731	4,233,189	4,092,301	9,297
NET CASH FLOW	(255,436)	(707,033)	(1,104,265)	(1,011,816)	(1,029,537)	1,510,594	261,321	(253,096)	(177,542)	(140,888)	(4,053,004)	371,307
END CASH POSITION BEFORE GRANTS	(255,436)	(684,028)	(1,031,435)	(188,331)	(517,084)	2,573,873	4,651,233	4,410,731	4,233,189	4,092,301	9,297	371,204
AID GRANTS AVAILABLE												
AVAILABLE B.O.Y.												
NEW INFUSION	1,000,000	1,000,000	1,000,000	2,000,000	2,000,000							
AVAILABLE AFTER INFUSION	1,000,000	1,721,539	1,964,701	2,769,791	3,408,976	1,823,634	12,595	0	0	0	0	0
USED	278,441	756,858	1,194,920	1,360,784	1,580,362	1,816,039	12,595	0	0	0	0	0
TOTAL AID GRANTS AVAILABLE EOY	721,559	964,701	769,781	1,408,996	1,828,614	12,595	0	0	0	0	0	0
AID GRANT USED												
CUMULATIVE AID GRANTS USED	278,441	756,858	1,194,920	1,360,784	1,580,362	1,816,039	12,595	0	0	0	0	0
TOTAL NET POSITION AFTER GRANTS	21,005	72,830	163,484	512,453	1,063,278	4,389,912	4,663,828	4,410,731	4,233,189	4,092,301	9,297	371,204

123

CASH FLOW ANALYSIS: OPTION 4 -- 82 HIL IN 1988 AND 1989, 81.5 HIL IN 1990 AND 1991 -- BUY 1,350 HECTARES/YEAR

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
PRICE/HECTARE	309	680	581	900	954	1,011	1,072	1,134	1,204	1,277	1,353	1,434
HECTARES BOUGHT PER YEAR	1,465	1,377	1,063	1,350	1,250	1,350	1,350	1,350	1,350	1,350	1,350	1,350
CUMULATIVE HECTARES BOUGHT	1,465	2,842	3,905	5,255	6,505	7,955	9,305	10,655	12,005	13,355	14,705	16,055
CASH INFLOW												
BONDS												
PRODUCTION CREDIT INTEREST	0	1,962	10,529	31,221	59,122	142,102	255,479	307,257	382,428	466,390	560,004	664,213
PRODUCTION CREDIT PRINCIPAL	13,938	17,661	31,304	260,178	427,254	1,072,460	1,980,772	2,194,691	2,731,632	3,331,358	4,009,032	4,744,380
LAND SALES DOWN PAYMENT	9,067	18,727	12,352	24,300	25,758	27,303	28,942	30,678	32,519	34,470	36,538	38,731
LAND SALES PRINCIPAL	0	22,539	69,242	100,014	163,758	311,185	417,630	567,764	717,858	876,953	1,040,919	1,119,006
LAND SALES INTEREST	0	54,403	64,056	229,859	416,316	595,378	759,546	927,567	1,075,493	1,216,051	1,348,798	1,218,154
TOTAL CASH INFLOW	23,005	115,562	288,084	645,573	1,117,208	2,168,429	3,448,369	4,027,957	4,939,930	5,925,226	6,986,291	7,784,484
CASH OUTFLOW												
AID FUNDS												
CASH PURCHASE OF LAND	226,679	469,190	308,802	607,500	643,950	682,587	723,542	766,955	812,972	861,750	913,455	968,263
PRODUCTION CREDIT LOANS	13,938	231,940	697,742	1,037,763	1,431,639	1,874,404	2,370,306	2,924,836	3,543,773	4,233,422	4,923,676	5,646,123
ADMINISTRATIVE COSTS	12,239	19,859	67,816	96,846	94,846	94,846	94,846	94,846	94,846	94,846	94,846	94,846
MOTORCYCLES				10,500	10,500	10,500	10,500	10,500	9,000	10,500	10,500	10,500
TECHNICAL ASSISTANCE	24,585	36,879	130,560	175,440	220,320	257,040	301,920	346,800	379,440	424,320	469,200	514,080
TOTAL AID OUTFLOW	278,441	756,858	1,194,920	1,928,050	2,401,455	2,919,377	3,501,114	4,143,937	4,840,031	5,624,839	6,011,677	6,433,812
COUNTERPART FUNDS												
INTEREST AND PRINCIPAL ON BONDS												
CERTIFICATE PRINCIPAL PAYMENT	0	45,336	138,972	200,732	322,232	451,022	542,204	593,276	684,907	726,001	769,561	835,044
CERTIFICATE INTEREST PAYMENT	0	20,461	58,457	73,742	110,351	139,305	160,146	176,467	192,099	203,624	215,841	145,581
FOUR WHEEL DRIVE VEHICLES				16,000	16,000	8,000	16,000	16,000	8,000	16,000	16,000	16,000
TOTAL COUNTERPART OUTFLOW	0	65,797	197,429	290,474	448,583	598,328	718,350	785,743	885,026	945,625	1,001,402	775,625
TOTAL CASH OUTFLOW	278,441	822,655	1,392,349	2,218,524	2,850,038	3,517,705	4,219,464	4,929,680	5,725,056	6,570,464	7,013,079	7,209,437
CASH INFLOW	23,005	115,562	288,084	645,573	1,117,208	2,168,429	3,448,369	4,027,957	4,939,930	5,925,226	6,986,291	7,784,484
CASH OUTFLOW	278,441	822,655	1,392,349	2,218,524	2,850,038	3,517,705	4,219,464	4,929,680	5,725,056	6,570,464	7,013,079	7,209,437
NET CASH FLOW	(255,436)	(707,093)	(1,104,265)	(1,572,951)	(1,732,830)	(1,349,276)	(771,095)	(901,723)	(785,106)	(645,237)	(26,787)	555,047
ENDING CASH POSITION	0	23,005	72,830	163,484	518,583	1,187,208	1,778,209	2,507,113	1,605,390	820,284	175,046	148,258
NET CASH FLOW	(255,436)	(707,093)	(1,104,265)	(1,572,951)	(1,732,830)	(1,349,276)	(771,095)	(901,723)	(785,106)	(645,237)	(26,787)	555,047
END CASH POSITION BEFORE GRANTS	(255,436)	(684,028)	(1,031,435)	(1,409,467)	(1,214,247)	(162,068)	1,007,113	1,605,390	820,284	175,046	148,258	703,305
AID GRANTS AVAILABLE												
AVAILABLE B.O.T.	0	721,559	964,701	769,781	841,731	440,276	0	0	0	0	0	0
EDY INFUSION	1,000,000	1,000,000	1,000,000	2,000,000	2,000,000	1,500,000	1,500,000	0	0	0	0	0
AVAILABLE AFTER INFUSION	1,000,000	1,721,559	1,964,701	2,769,781	2,841,731	1,940,276	1,500,000	0	0	0	0	0
USED	278,441	756,858	1,194,920	1,928,050	2,401,455	2,919,377	3,501,114	4,143,937	4,840,031	5,624,839	6,011,677	6,433,812
TOTAL AID GRANTS AVAILABLE EDY	721,559	964,701	769,781	841,731	440,276	0	0	0	0	0	0	0
AID GRANT USED	278,441	756,858	1,194,920	1,928,050	2,401,455	1,940,276	1,500,000	0	0	0	0	0
CUMULATIVE AID GRANTS USED	278,441	1,035,299	2,230,219	4,158,269	6,559,724	8,500,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
TOTAL NET POSITION AFTER GRANTS	23,005	72,830	163,484	518,583	1,187,208	1,778,209	2,507,113	1,605,390	820,284	175,046	148,258	703,305

124

Information Systems Analysis

An information systems analyst surveyed data collection and analysis procedures for the Foundation's operations, finances and management. In operations, the Foundation's information management system covers beneficiary selection, farm purchase/rejection and processing of individual farm cost and production data. Of these three tasks, only beneficiary selection data are processed and stored on a Foundation computer. The farm purchase/rejection information consists of written description of the farms visited and reasons for or for not buying them. Farm cost and production data are also manually managed. Foundation agronomists collect some farm-level cost data and send it to the accounting department for processing and posting. The information analyst recommended that, in addition to the existing operation data, the Foundation collect information and report quarterly on beneficiary turnover per farm, family income, hectares purchased and average price paid per hectare for each farm. All the operation reports should be maintained on a computer data base.

Financial monitoring involves functions that ensure the financial health of the organization. It consists of accounting and financial planning. A Guatemalan firm developed standard general ledger software for the Foundation's accounting. The general ledger is used to summarize all financial transactions and prepare balance sheets and income statements. The Foundation's general ledger software is not integrated with payroll, inventory, accounts receivable, accounts payable or other subsidiary journals, as the Foundation maintains these manually.

The Foundation's accounting software works and is adequate for the activities planned under the Project. It is not as efficient as it could be, though. The ideal accounting software would allow the Foundation to write any report they desired out from an integrated system. An integrated accounting system would be nice, but none are available in Spanish for fund accounting. To write the integrated components for the existing general ledger software would be too expensive. The information systems analyst therefore recommended that the Foundation continue to use its general ledger package, buy a stand alone accounts receivable package and produce cash flow and financial reports on auxiliary spreadsheet and database software. As the land purchase program grows the Foundation should evaluate the costs, benefits, and availability of an integrated fund accounting system.

The way the Penny Foundation manages its cash from the land purchase program will determine its success or failure. The current obligations of the Foundation cannot be paid with future collections. Financial planning is imperative. For this reason, the Foundation will buy accounts/notes receivable software to monitor inflows and outflows of production and land purchase credit. It will buy either a stand-alone package or develop one

125

internally. The Foundation will also produce cash flow and pro-forma information on a quarterly basis for:

- Land Purchase Activity as a whole
- Farm level as a whole
- Farm level by hectare
- Farm level by crop
- Farm level by beneficiary and/or parcel
- Break even and shutdown (variable) prices and/or sales level for each crop and farm.

To assist the Foundation in the design of databases and required financial reports, USAID will fund some short-term technical assistance. The contractor should be familiar with information systems and data base designs for farm production and financial analysis. If available, the information systems analyst who evaluated the information system for the Project design should be contracted. He is familiar with the Foundation's needs and demonstrated consummate skill in this field.

The computer equipment and personnel need to be expanded to meet the proposed data processing and reporting needs of the land purchase program. As many small organizations have done in the past, the Foundation has adopted computer technology haphazardly. It obtained two computers, an IBM PC XT and an Apple Macintosh, with printers and a small amount of software to handle simple accounting. Through the initiative of one individual, an agronomist who has had some training in computer applications, the Foundation expanded the computers' use to include some financial planning and operational data processing for the land market program. The agronomist has shown the ability to creatively apply computer software to various Foundation information needs. He has the skill and initiative to develop more computer uses, but cannot because: he is working only part time on computer applications; the equipment is tied up much of the time by the accounting department; and the equipment has reached its operating and storage capacity.

After evaluating the information system, proposed information needs, and the organization and personnel involved in information management, the information analyst recommended the purchase of hardware, software and organizational changes.

Recommended hardware purchases should include:

- 1 IBM PC AT or compatible with 640K of RAM memory, one 1.2 megabyte floppy disk drive, one 360K floppy disk drive and one 20 megabyte hard disk drive
- 2 Epson LX 1000 printers
- 1 Hayes compatible modem

- 1 Apple Macintosh modem
- 1 Surge protector/line conditioner
- 1 Memory expansion card 256K to 640K
- 1 Hard disk expansion (IBM) 20 megabyte
- 1 Hard disk expansion (Apple) 20 megabyte

Recommended software purchases are:

Lotus 1-2-3
WordPerfect
Dbase III plus
Microsoft Chart
PC to MAC and Back
Reflex
A/R loan package - custom program

The Penny Foundation should create a separate computer applications department with one administrator and head/programmer, preferably the agronomist, and one assistant. The department would have the IBM PC AT, or clone, and Apple Macintosh computers with the above listed software. The department would be responsible for database management, and provide support to the Foundation in special projects. The accounting department should receive the existing IBM PC XT with some of the above listed enhancements.

Finally, the Penny Foundation needs to obtain some depth among its personnel in computer literacy and competency. The Project will fund training for basic computer skills for administrative staff, basic skill in financial modelling and database management for management, particularly financial personnel, and advanced courses in database applications, computer applications and financial modelling for the computer applications department staff. Local vendors can provide the training.

ECONOMIC ANALYSIS

Introduction

To determine whether the Lands Market Project is an appropriate use of scarce resources, a comparison of the future discounted benefit and cost streams generated by two Example Farms was made. Several adjustments were made to the data in order to better reflect the physical resource use and the economic opportunity cost of the Project. The analyses for both farms yielded high economic rates of return for the investment made.

Based on the results of the pilot project of the Penny Foundation, the Foundation has been successful in transforming underutilized land into productive, labor-intensive small-holdings producing, in many cases, non-traditional export crops. These crops have contributed to national income and provided the new owners of the individual farm plots with sufficient financial returns to enable them to amortize their loans ahead of schedule and to increase their standard of living. The Penny Foundation combines the purchase of under-used or barren land from landowners for transfer to small farmers who are willing to purchase the land and receive technical assistance in labor-intensive cultivation of high value crops. Both the sale prices received by the original owners and the purchase prices paid by the Project beneficiaries reflect the fair market value of the land. The Project produces an expansion of the national output in which everyone involved is at least as well off as he/she was before the transaction took place and many are much better off.

Benefit-Cost Analyses

The benefit-cost analyses described below were based on two model farms. The two model farms were derived from the overall portfolio of the Penny Foundation. An overview of the portfolio indicates that of the total number of 1,427 hectares being financed by the Penny Foundation in 1987, 36% are planted in coffee, 14% in corn, 9% in vegetables, and 3% in pineapple, for an overall total of 69%. Thus the two farms which are assumed to be producing coffee, pineapple, broccoli and corn provide a representative sample of the range of projects which the Penny Foundation administers. The production costs, price and yield information were obtained from the Penny Foundation and reflect actual operating results from existing parcels of land.

Several assumptions common to both model farms were used in the analysis. A discount rate of 15% was used to reflect the opportunity cost of capital and prices were denominated in 1987 Quetzales. To calculate relatively long-term benefits and costs which would arise as a result of the project, the analysis was carried out over a 10-year period. Unskilled labor in the analysis was shadow-priced at 80% of the minimum wage to reflect its overabundance in the economy. Farm gate prices were used throughout the analysis, that is the net prices received by the farmers for their produce after transportation and processing costs (in the case of coffee) are deducted. The Penny Foundation revenue estimates assume that the coffee will be sold at quota prices, that is at \$130 per quintal. A sensitivity analysis was performed in which it was assumed that the revenue generated was based on a nonquota price of \$70 per quintal. This scenario yielded a benefit-cost ratio of 0.96 and an internal rate of return of 12.07 percent. Thus, with very conservative coffee revenue assumptions, the analysis indicates that the discounted future stream of costs will slightly exceed the future stream of benefits. Also note that the windfall export tax on coffee was not factored in because it will be eliminated early on in the project life.

The Penny Foundation's administrative costs are included as a cost of production because they represent resources with potential alternative uses in Guatemala. In addition, a general cost of "Technical Assistance" was charged against each model farm in order to reflect all of the \$12.3 million cost of the project throughout its life. Note however that although this category is comprised principally of technical assistance costs, that it also includes funding for some items that will not be charged directly to the Penny Foundation.

Example Farm 1

This first model farm consists of 2.75 hectares of land. For the purposes of the analysis it was assumed that coffee would be grown on 2 hectares,

pineapple on .5 hectare and corn on the remaining .25 hectare. The economic costs of producing the above crops include administrative costs of the Penny Foundation (incorporated here on a Q 106 ¹/_{per hectare basis}), technical assistance costs (Q 588 per hectare), and the cost of agricultural inputs (such as seeds and fertilizer), labor, and equipment. Labor costs for unskilled labor are shadow-priced downward in this analysis to reflect the excess supply of unskilled farm labor in Guatemala. Another economic cost which is usually included in this type of analysis is the opportunity cost of land. It is assumed that this land was barren before the project and that it would not be producing any crops, thus its economic opportunity cost for the analysis is zero.

The analysis assumes that all of the crops were planted in the first year of the project. Coffee requires two years after the initial planting to produce beans. Thus, output from this source was not incorporated into the benefit stream until the third year. Pineapples grow in a three-year cycle which requires that they be completely replanted every fourth year. The plants require 13 months' growth before they can be harvested and then they produce for three years. Output from pineapple production enters the benefit stream in the second year, continues through the fourth year, then ceases for two years as the lands are replanted to begin the cycle again. Corn was assumed to generate output from the first year of the project through the final year.

Benefits of the project are calculated as the market value of the three crops produced on the Example Farm.

Example Farm 2

The size of the second Example Farm is two hectares. It was assumed that broccoli and corn would be produced on this land. Again, the economic costs include the administrative costs of the Penny Foundation and technical assistance costs (Q 143 and Q 650 respectively, per hectare), and the cost of agricultural inputs, labor, and equipment. This analysis also incorporates an opportunity cost for land because it was assumed that before the project it was planted in corn. To provide a "with" and "without" project comparison, the value of the corn which would have been produced in the absence of the project is charged against the project as a production cost. In a similar manner, the amount of labor required to harvest the broccoli was adjusted downward by the amount of jornales, or man-days which would have been used to produce only the corn crop in the absence of the project. It was assumed that without the project generally this corn would be produced by renters or squatters, thus the two hectares planted in corn would received minimal agricultural inputs and these "without" project production costs are zero.

1/ Exchange rate is 2.5 Quetzales to 1 dollar.

Employment Generation

To estimate the number of person-years of employment that would be generated as a result of the project, the labor requirements (both family and hired) for the four crops used in this analysis were assumed to be representative of the labor requirements of the entire portfolio of the Penny Foundation. By applying the same labor uses to the projected portfolio over the ten-year project life (based on a total number of hectares production financed ranging from 1,427 in year 1 to 7,828 in year 10) and including the additional agronomists and technicians who will be added to the Penny Foundation staff during the life of the project, a total figure of more than 49,200 person-years was estimated to be generated by the project. (See Table 3) (This calculation was based on a 240-day person-year.) Of this total, 63 percent would result from continued and increased coffee production, 3 percent from pineapple production, 19 percent from broccoli production, 14 percent from corn production, and 1 percent from additional Penny Foundation staff. The total amount of labor required was adjusted downward to reflect the amount of labor that would have been required had the lands in broccoli production remained solely in corn production, as would have been the case without the project.

Conclusion

The analyses show a economic benefit-cost ratio of 1.65 for Example Farm 1 and 1.53 for Example Farm 2, based on an economic opportunity cost of capital of 15 percent. Note that while a scenario for Example Farm 1 based on coffee revenues generated totally on nonquota prices yielded a benefit-cost ratio of 0.96, this is partially offset by the conservative opportunity cost of capital assumption used throughout the analysis. That is to say that if a less conservative discount rate (12 percent or lower) were used even the benefit-cost ratio from the least-optimistic scenario would be greater than one.

The internal rate of return for Example Farm 1 is 53 percent. For Example Farm 2 it was not possible to calculate the internal rate of return because the net benefit stream is positive throughout the period of analysis. To calculate the internal rate of return, the benefit stream must change from positive to negative or from negative to positive during the life of the project. This Project shows a higher economic rate of return than most of the projects in USAID/Guatemala's portfolio. Thus, if the Penny Foundation continues to use its current land purchase selection criteria and technical assistance program for the new small land owners, then the activities occurring under this Project should have a high rate of return similar to those in the past.

The analysis assumes that the Example Farm would produce two harvests of broccoli and one of corn in each year. Thus, benefits from the project are made up of the market value of the broccoli and corn.

3234R

132

TABLE I

LAND MARKETS PROJECT

BENEFIT/COST ANALYSIS FOR MODEL FARM 1

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
COSTS (Q's):										
Penny Foundation	292	292	292	292	292	292	292	292	292	292
Technical Assistance	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326
Production (Corn)										
Land	0	0	0	0	0	0	0	0	0	0
Labor	51	51	51	51	51	51	51	51	51	51
Agricultural Inputs	56	56	56	56	56	56	56	56	56	56
Equipment	0	0	0	0	0	0	0	0	0	0
Production (Pineapple)										
Land	0	0	0	0	0	0	0	0	0	0
Labor	549	169	169	549	169	169	549	169	169	549
Agricultural Inputs	895	351	272	895	351	272	895	351	272	895
Equipment	0	0	0	0	0	0	0	0	0	0
Production (Coffee)										
Land	0	0	0	0	0	0	0	0	0	0
Labor	1,459	553	1,229	2,320	3,120	3,120	3,120	3,120	3,120	3,120
Agricultural Inputs	5,724	1,790	2,470	2,910	2,810	2,810	2,810	2,810	2,810	2,810
Equipment	0	0	0	0	0	0	0	0	0	0
Total Costs	10,260	4,586	5,863	9,207	8,173	8,094	9,067	8,173	8,094	9,067
BENEFITS (Q's):										
Output:										
Corn	225	225	225	225	225	225	225	225	225	225
Pineapple	0	2,760	2,475	1,950	0	0	2,760	2,475	1,950	0
Coffee	0	0	7,422	19,164	18,764	18,764	18,764	18,764	18,764	18,764
Total Benefits	225	2,925	10,122	21,339	18,989	18,989	21,339	21,464	20,939	18,989
Total Discounted Costs	10,260	3,999	4,433	5,396	4,646	4,824	3,694	3,072	2,646	2,561
Total Discounted Benefits	40	2,544	7,653	14,030	10,795	9,441	9,376	8,069	6,845	5,799
Benefit-Cost Ratio (B/C)	1.65									
Internal Rate of Return	0.5122									

TABLE 2

LAND MARKETS PROJECT

BENEFIT/COST ANALYSIS FOR MODEL FARM 2

YEAR	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
COSTS (Q's):										
Pennv Foundation	286	286	286	286	286	286	286	286	286	286
Technical Assistance	1,301	1,301	1,301	1,301	1,301	1,301	1,301	1,301	1,301	1,301
Production (Broccoli)										
Land	1,800	1,800	1,800	1,800	1,900	1,900	1,900	1,800	1,900	1,900
Labor	2,170	2,170	2,170	2,170	2,170	2,170	2,170	2,170	2,170	2,170
Agricultural Inputs	5,557	5,557	5,557	5,557	5,557	5,557	5,557	5,557	5,557	5,557
Equipment	177	0	0	0	0	0	0	0	0	0
Production (Corn)										
Land	0	0	0	0	0	0	0	0	0	0
Labor	404	404	404	404	404	404	404	404	404	404
Agricultural Inputs	447	447	447	447	447	447	447	447	447	447
Equipment	0	0	0	0	0	0	0	0	0	0
Total Costs	12,143	11,966	11,966	11,966	11,966	11,966	11,966	11,966	11,966	11,966
BENEFITS (Q's)										
Outputs:										
Broccoli	16,589	16,589	16,589	16,589	16,589	16,589	16,589	16,589	16,589	16,589
Corn	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
Total Benefits	18,389	18,389	18,389	18,389	18,389	18,389	18,389	18,389	18,389	18,389
Total Discounted Costs	12,143	10,465	9,047	7,863	6,893	5,949	5,173	4,498	3,912	3,402
Total Discounted Benefits	18,389	15,931	13,904	12,090	10,454	9,143	7,949	6,912	6,011	5,228
Benefit/Cost Ratio (15%)	1.53									

TABLE 3

EMPLOYMENT GENERATION ESTIMATES
BY YEAR AND SOURCE

YEAR	NUMBER OF HEC. PER YEAR	COFFEE	PINEAPPLE	BROCCOLI	CORN	PENNY FOUND. INCREM. STAFF	TOTAL PERSON DAYS	TOTAL PERSON YEARS**
1	1,427	226,618	26,536	71,533	24,980	0	349,666	1,457
2	2,051	191,983	15,712	102,897	53,122	2,160	365,874	1,524
3	2,695	332,954	19,278	135,362	82,212	4,320	574,125	2,392
4	3,360	525,924	32,359	168,927	112,251	6,240	845,701	3,524
5	4,046	663,806	31,043	203,593	143,239	8,400	1,050,089	4,375
6	4,755	806,133	35,554	239,359	175,175	10,560	1,266,781	5,279
7	5,487	952,901	44,992	276,226	208,376	12,240	1,494,734	6,228
8	6,243	1,104,761	44,532	314,193	242,525	14,400	1,720,411	7,168
9	7,023	1,260,996	48,774	353,261	277,940	16,560	1,957,531	8,156
10	7,828	1,422,970	54,119	393,429	314,303	18,720	2,203,540	9,181
%		7,489,045	352,958	2,259,776	1,634,122	93,600	11,828,442	49,285
OF TOTAL		0.63	0.03	0.19	0.14	0.01	1.09	

**NOTE: BASED ON 240 WORKING DAYS PER YEAR.

125

EXHIBIT G. Social Soundness Analysis

This ANNEX excerpts some of the most relevant sections from a longer social soundness analysis appearing as a File Attachment (see Commercial Land Purchase Project: A Social Analysis)

Importance of land in ethnic culture:

Land is extremely important in Indian culture, regardless of the subethnic group or linguistic affiliation. Nearly all ethnographies of Indian culture make some mention of the predominant place land has in the Indian mind. One example is the following (John Gillin, The Culture of Security in San Carlos, Middle American Research Inst., New Orleans, 1951):

In fact, it is not too much to say that the average Indian loves the land and feels himself less than a man if he does not have some available on which to work. (p. 12)

Land: Highly valued, but a man must work it with his own hands even though he can pay helpers. Non-agricultural occupations are followed to provide money to buy land. (p. 121)

Importance of land in Indian-Ladino relationships:

An area of conflict in Ladino-Indian relationships is land. The Ladino has a generally Occidental approach to land as a source of income or investment, as opposed to the Indian mystique about working land personally. The Ladino sees land, tenants, and laborers as a means of social and political as well as economic control and power. The Indian cannot see why the Ladino will not allow him to work land which the Ladino is not using, for example, an important element in recent conflicts.

This is not to say that Indians are irrational in their views about how land should be used. It may have been true in the past that the Indian felt that he should plant corn above all else, and the ethnographic literature reports that in some cases Indians have felt that corn not grown by their own hands was not as nutritive as their own corn. But Indians have shown great flexibility in adapting to new technology, as shown in the adoption of chemical fertilizers (see Ricardo Falla, Quiché Rebelde, Editorial Universitaria, Guatemala, 1978; originally a University of Texas Ph.D. thesis).

Indians, like anyone else, would prefer to have land close to their traditional homes in the central and western highlands, but they are not adverse to moving elsewhere permanently if there is land available. Dialect studies of piedmont Quiche-speakers has allowed researchers to identify the ancestral home of whole communities. For example, linguistic evidence in the Quiche language from San Francisco Zapotitlan, San Pablo Jocopilas, and Zunilito suggests that the people there came originally from Cantel; the

people of Santo Tomás La Unión come from Nahualá; the people of El Palmar are originally from Momostenango. The Mam of the piedmont towns of Génova, Coloma, and Flores Costa indicates that the people there came originally from the Ostuncalco area.

Types of land tenure:

According to the agricultural census of 1979, there are five types of land tenure: private property, rented, share-cropped, communal, and other. Private property land tenure makes up 71 percent of the total and includes farms from the smallest to the largest. Rented land tends to be found in small parcels, usually used by small or subsistence farmers with little or no land of their own, and represents 10 percent of the total. The amount of rented land tends to diminish as time goes by.

Share-cropped land, the amount of which is also diminishing as land owners place the land in cash crops, is usually land provided by large farm owners to their permanent laborers as part of their payment. In 1979, this type of land tenure represented 10 percent of the total. Communal lands, five percent of the total, have been slowly decreasing as the usually Indian communities holding them allow them to pass in one way or another into private hands. The "other" category includes lands that are simply "occupied" by small subsistence farmers but which often have other legal owners.

Analysis of target group population and relative benefits to buyers and sellers:

The target group population in this Project is made up of the mass of land poor subsistence and cash crop farmers and landless agricultural laborers who make up the bulk of the population involved in agriculture today in Guatemala. The land poor farmers are usually those who have considerably less than four manzanas of land and who manage to live by supplementing their farm incomes through seasonal migrant labor or through some other non-farm activity. Most of these farmers live in the highlands: Indians in the central and western highlands and Ladinos in the eastern highlands. Their actual holdings are small due to inheritance patterns which tend to apportion part of the father's land to each of his children, particularly but not always the male children.

Parents are not always able to provide land to their children, particularly at the moment their children need it. Many young people, both Indians and Ladinos, marry young, as early as 15 years of age, and thus in many cases they need land when their parents are still economically active and using the land which these young people might later inherit. A young couple might well be faced with the prospect of waiting as long as 20 years before inheriting a small parcel which even then might be just barely adequate for

their subsistence. This situation demonstrates how the land poor group dovetails with the landless agricultural labor group, which is the second definable division in the target group population.

The young landless agricultural laborers are often the children of the land poor farmers in the highlands, and they are generally forced to leave their traditional homes to find a means of subsistence elsewhere. Some join the informal service industry in the capital, shining shoes or selling gum and cigarettes on street corners, but many seek work as agricultural laborers on the large cash crop farms, usually on the south coast and piedmont areas. This solution is a traditional one, since particularly the Indians from the highlands have been supplementing their farm incomes with migrant farm labor for over a century.

The problem is that the population seeking work on the large farms far exceeds the demand for permanent employment. There is usually enough work for all during the coffee harvest, but for at least six months out of the year the large farms simply cannot absorb large numbers of unskilled farm laborers. The same is generally true of many of the other large farm cash crops, such as sugar and cotton.

Many of the large farms provide an acceptable income to their owners on the basis of size alone. Some owners invest very little in their farms, using no or very little fertilizer, ignoring pest control, and in the case of coffee, not bothering to renew their stands of coffee. They are able to survive comfortably on poorly producing coffee because they have enough acreage planted in it.

A land owner of the above type who sells off a portion of his land may not be able to continue these lackadaisical farm practices, but rather will have to invest in making the portion of the farm he retains to make it more profitable per acre, but his income in the end may well be the same.

The Penny Foundation program is also oriented toward intensive production. Since the beneficiaries have just four manzanas of land, they must invest sufficient time, money, care, and technology into assuring the best payoff of their land. The end result is that the entire farm, both the part the owner retains that he must now work harder as well as the part sold to the Penny Foundation program, now produces as much as twice as much as it had previously, and the benefits of this situation are distributed among an ample group of beneficiaries. The program has the further advantage in that no one "loses."

Discussion of social costs and benefits of channeling land purchase funds through the Penny Foundation:

The Penny Foundation program has the advantage of being a program more or less acceptable to the large land owners. It is not "land reform," since land reform implies the forced expropriation of farms, the owners of which are compensated for the land, but this compensation never seems to be sufficient and in any event the fact that it is a forced sale is guaranteed to produce resentment. But if farm land is freely sold and purchased, no owner can justifiably complain.

Another advantage is that the land parcels are sold, not given, to the beneficiaries, which is also a satisfactory action in the eyes of the potential opposition to the program, the large farm owners. The program contains no charity, and the beneficiaries pay for their land rather than receiving it as a right, and even the agricultural credit is paid for and with interest. Everything is carried out in a very businesslike manner apparently, in the eyes of the large land owner, which makes it nearly impossible for any real opposition to the program to build up in this sector.

For the beneficiaries, the program is also highly satisfactory. In the first place, the beneficiaries become owners of ample parcels of land, which is for most of them the goal and dream of a lifetime. The land must be paid for, of course, but the farm plans and technical assistance are such that the land will eventually be so productive as to make paying off the parcel relatively fast and easy. They receive the credit they need for agricultural production, and the Penny Foundation even provides a "safety net" of subsistence cash for work on their own parcels to tide them over until the farm begins producing. They are dependent on the Foundation, but the benefits of this association are such that this dependence and the paternal role of the Foundation do not pose barriers to their acceptance of the program.

Probable impact on land pressures, migration patterns, rural poverty, rural labor availability:

The Penny Foundation program is too small at present to have much immediate impact on land pressure, migration patterns, rural poverty, or rural labor availability, although the expansion of the program in the future might be able to do so. One of its future effects might be to channel people away from the capital city as their only hope of acquiring subsistence. With laborers moving into the program, another effect might be the improvement of labor conditions for other rural laborers, both permanent and migrant. Migration patterns should continue to be much the same, as the cash crops like coffee always need harvesting.

One interesting side effect is that the Penny Foundation program even now provides work for non-beneficiary farm laborers. The vegetable farms in particular have provided immediate income for their beneficiaries, which has

138

allowed them to turn around and provide farm employment for other members of their communities as well as for themselves and their families.

Guatemalan government and land reform historically:

Although agrarian problems and agrarian transformation policies date from the Spanish conquest and colonization, the modern era in this area begins in 1871 with the period of Justo Rufino Barrios. Until this time, the major portion of lands were in the hands of the Catholic church with the rest divided between the Indian communities, under utilized large and medium-sized farms, and unused government lands.

Barrios effected a sweeping transformation in the structure of land tenure. Private ownership with legal titles expanded enormously at the expense of the lands owned by the church, communal and municipal lands in most cases held by Indians, and lands without legal title in the hands of individuals, who were once again usually Indians. Lands without legal title were sold to foreign buyers who planned to plant coffee, thus providing the government both with capital from the sale of the land and with export tax income from coffee exports. The Indian groups which suffered most were those like the Kekchi in Alta Verapaz whose lands were ideal for coffee and who were unlikely to possess the means to dispute the transactions. Kekchi Indian communities continued to live on the land, providing labor in return for small parcels left without coffee, although many Kekchis also left in search of unused lands, expanding their presence to the north and east until today the area occupied by Kekchi speakers is the largest of all Indian groups.

Barrios also instituted a law to provide agricultural labor for the new coffee farmers, especially for those on the coastal piedmont without resident Indians. The law stipulated that those without a salaried income of a certain amount had to provide a fixed number of days of either agricultural labor or public works labor, such as roads. This labor was paid, although poorly, and without it the coffee farmers would have no way to attract labor for the coffee harvest. This system was maintained from Barrios' time until the Revolution of 1944.

The 1944 Revolution overturned the above law, but by this time the Indian population had grown sufficiently and they had subdivided their lands to such an extent that migrant Indian farm labor continued. The presidency of Dr. Juan José Arevalo from 1945 to 1951 was characterized by the implementation of laws and institutions favoring the common people, from universal education to social security, and among the projects begun at this time was land reform.

Steps directed toward land reform continued with the arrival of the presidency of Jacobo Arbenz in 1951. The 1952 the Agrarian Reform Law, known

in Guatemala as "Decreto 900," was passed containing the following fundamental elements:

- a. - Privately held lands could be expropriated if they had not been cultivated or rented during the previous three years.
- b. - No farm smaller than 90 hectares could be expropriated, nor any farm of 200 hectares where 75% of the land was cultivated.
- c. - No lands could be expropriated if their crops were destined for internal or export markets.
- d. - No communal Indian lands could be expropriated.

With the 1954 coup overthrowing the Arbenz government, Decreto 900 was suspended and lands which had been expropriated were returned to their previous owners. The Agrarian Reform Law was replaced by the Agrarian Transformation Law with the objective of creating development zones where there was greatest demand, using land still owned by the state. Between 1955 and 1967, 4481 parcels were deeded over by the government in these development zones. At the same time, the government stimulated the colonization of new lands, particularly in the area known as the Northern Transverse along the northern fringe of Quiché, Huehuetenango, Alta Verapaz, and Izabal departments, as well as in the sparsely populated Petén. These measures were incapable of solving the structural problem of land tenure, nor were they able to really act as an escape valve for those who were landless or land poor.

By 1970 and the years following, the alternative of seasonal farm labor was less and less able to meet the needs of the landless and land poor, and the government measures such as the Agricultural Development Plan of 1971-1975 were based on maintaining the traditional bipolar agricultural relationships. There were some benefits to medium range farmers and to cooperatives, but there was no real questioning of the system of land tenure. This period saw the acceleration of land distribution in the Northern Transverse, but this policy was weakened by fraud, by the removal of traditional farmers without titles already on the land, and by the fact that much of the land is little suited for intensive agricultural use.

Rural grass-roots organizations historically and today:

Until 1944 there were no successful rural grass-roots organizations, due to the favoring of large land owners by the succession of presidents or dictators from the time of Barrios in the 19th century through the 20-year reign of Estrada Cabrera in the early 20th century to the last old style dictator, Jorge Ubico, from 1931 to 1944. The domination of the coffee farmers and the legal exploitation of the highland Indians in farm labor was secure.

The situation changed radically in 1944 with the popular revolution overthrowing the Ubico government and the democratic opening under Arévalo. For example, the cooperative movement to that point had been able to organize just 20 cooperatives, while in the next five years it was possible to organize more than 700 cooperatives and orient them toward obtaining land through agrarian reform. This movement became further strengthened under the Arbenz government and the promulgation of Decreto 900. There were numerous abuses at this time, as campesino cooperatives invaded farms, often with little care as to whether the agrarian reform law permitted their expropriation or not.

Because of their memories of this period, the large land owners still react violently to the mere mention of agrarian reform and consider anyone sympathetic of any change in the structure of land tenure in Guatemala to be a "communist." Since then, the cooperative movement redirected its policies toward credit and technical assistance and away from obtaining land, although even so, the cooperative movement has been hounded from time to time by the government and its supporters among the landed class.

Beginning in the mid-1970's, campesino groups made up of both farm laborers and small land owners began to grow and become more radical in their demands under the influence of guerilla groups, and they were drawn more and more into taking up arms. An example of such an organization is the Campesino Unity Committee (Comité de Unidad Campesina - CUC). These movements tended to separate the successful small Indian farmers, many of whom were involved in the cooperative movement, from poorer Indians who often felt they had no choice but to join one of the radical groups or emigrate to the city, the south coast, or even to Mexico and the United States.

In contrast to the campesinos, the large land owners have always been well organized with the dominant group being the coffee growers. Their principle organization at present is the National Farm Union (Unión Nacional Agropecuario - UNAGRO), made up of the General Farmers Association (Asociación General de Agricultores - AGA) and the Chamber of Agriculture of Guatemala (Cámara del Agro de Guatemala), which in turn form part of the Coordinating Committee of Agricultural, Commercial, Industrial and Financial Institutions (Comité Coordinadora de Instituciones Agrícolas, Comerciales, Industriales y Financieras - CACIF), which is presently the most powerful non-governmental pressure group in the country.

Land and political pressures today:

During the last 30 years the population of Guatemala has grown at an average rate of 3 percent per year, causing a population increase between 1950 and the present from 3.3 to 7.8 millions. Some 56 percent of these people live in rural areas, or around 4 million people. Taking another perspective, the 1973

census paced the number of rural people who were economically active at 884,100, corresponding to 56 percent of the total economically active population. From this angle, what is most notable is the atomization and proliferation of land parcels of less than one manzana (less than .69 hectares), which increased by 162,007 between 1964 and 1979 at a rate of increase of 190.4 percent, while the area covered by these microparcels increased by 40,374, which represents at rate of increase of 86.5 percent. The difference in rates indicates that the average size of a microparcel went from 0.5 to 0.3 manzanas (from .347 hectares to .208 hectares). Two observations possible on these figures are that there are new microparcels in geographic areas where they did not previously exist, in part due to the distribution of parcels by the government, and that the subdivision of parcels has produced new microparcels.

Rural poverty has generated land pressure alleviated only by seasonal labor. But this seasonal work market operates in a situation of an excess of unskilled labor, which has the effect of depressing salaries and minimizing its positive effects in the campesino economy. In addition, falling prices in some export crops requiring hand labor (cotton, cardamom, sugar) have further contracted the demand for labor.

Diffusion of land market mechanism for use by other groups:

In the diffusion of the land market mechanism for use by other groups, two aspects of the mechanism are important. The first is the purchase of land on the open market, and the second is the re-sale of this land to the campesinos. Many in Guatemala recognize that there is a land distribution problem and that land issues are potentially destabilizing for this government, but land expropriations and traditional approaches to land redistribution are not accepted as options for dealing with the situation. The violence associated with agrarian reform historically in this country, the polarized response to land issues today, and the evidence of recent massive reforms in El Salvador and Nicaragua are some of the reasons for the support, across a spectrum of Guatemalan society, for a land market approach to land problems.

There is agreement that underutilized or abandoned land should be purchased on the open market and re-sold to landless buyers committed to increasing land productivity and agricultural production. Differences arise around the form in which the land should be re-sold to the campesinos. The Penny Foundation insists on a model of sale of family-sized plots to individual buyers.

In December 1986, the Ministerio de Agricultura, Ganaderia y Alimentacion issued an agrarian policy which advocates the fostering of a land purchase/sale mechanism to serve campesinos, the agricultural middle class and agricultural technicians without land. It outlines the steps necessary for

the government to become involved as an intermediary between landowners selling large tracts of land and landless buyers, in an approach similar to that of the Penny Foundation. However, the government encourages the development of cooperative farms operated as business units by groups of campesinos.

The proposal issued in June 1986 by the Movimiento Pro Tierra, of Padre Giron calls for a program to "stimulate the process of democratic purchase and sale of land". This proposal seeks the organization of the farms as "agribusiness centers." Campesinos will be shareholders in the farm enterprise which will be farmed as a unit.

The general manager of the Penny Foundation reports that at least one other private development organization recently contacted the Foundation for information on how to assist campesinos in their area in the purchase of land. The campesinos from this organization accepted the individual ownership model but were not interested in the large technical assistance requirement of the Penny Foundation program.

Social Considerations for Further Research and Evaluation

Because of the support for strengthening the land market as a means of increasing access to rural land, coupled with the differences of approach to the terms of sale, USAID needs to invest in a program of research to separate out the issues involved in these discussions, to analyse the needs of various segments of the rural population and to draw up proposals for alternatives to meet these needs.

Some of the issues that should be considered are the necessity of using the total package of the Penny Foundation project with all population groups. For example, could funds be made available for land purchase through rural savings cooperatives so that farmers who are land poor or farm rented land, who do not need technical assistance could borrow to add to their present land holdings?

The cooperative federations, the Federacion Nacional de Cooperativas de Ahorro y Credito (FENACCOAC) and the Federacion de Cooperativas Agricolas Regionales (FECOAR), are possible candidates for such a program. Both seem to be maintaining a strict control on debt payment, making the group responsible for members' nonpayment. Both have a good education program and the loan repayment and technical assistance apparatus. The farmers are well known to the cooperative and a sense of common purpose is fostered through regular meetings of the local cooperative members.

The possibility of expanding the program through the establishment of a land bank or to open the market through a similar financial mechanism or institution also has been discussed. What are the legal and financial requirements of such an institution? Who would be able to take advantage of such a sector? Another issue is the extent to which credit for land purchase should be linked to production credit. The Penny Foundation experience suggests that the establishment of a land bank or similar land financing mechanism without adequate and timely production credit would be ineffective? What would be the role of BANDESA in this activity?

The relative costs and benefits of alternative types of farm organization also should be considered. Is an integrated rural development approach necessary to insure that the next generation on small holdings with individual title do not divide up their parents' parcels into sub-family size plots? Does region, ethnicity or crop affect whether a cooperative, corporate or individual farm organization would be most appropriate?

There are also other development organizations like the Penny Foundation which might be able to institute similar projects. One such organization is the Movimiento Guatemalteco de Reconstrucción Rural (MGRR). The MGRR has a rotating credit fund which complements its program of technical assistance, has trained rural promoters, and has worked with coffee crop improvement, basic grains, soil conservation, and a variety of crops. The MGRR is smaller than the Penny Foundation, with most of its activities focused on Jalapa, but its organizational structure and development strategy are similar. An important financial and organizational issue is whether programs with other development organizations should be implemented as discrete activities or whether the programs of small organizations could be channeled through the Penny Foundation.

Public response to land purchase activities:

One of the most important aspects of the Penny Foundation program in the context of Guatemala is that it has produced very little public commentary, which indicates principally that the program is not seen as being threatening to anyone. The fact that it is based on the free market purchase and sale of land, with transactions taking place in the same way as other such land transactions, has kept the program from being seen as "land reform," which is a phrase which produces strong reactions for and against from different sectors of Guatemalan society.

There are basically two elements in the program which balance each other in the minds of both the left and right, making the program neither particularly exciting nor really unpalatable to either the left or right. The fact that the program objective is to place land in the hands of the landless and land poor is not viewed with much enthusiasm by the right wing or the large land owners, but the fact that it is all done in a businesslike way with the purchase of farms on the free market leaves them with no real objection to the program. On the other hand, the left might applaud a program which provided lands to the landless and land poor, but the very fact that these lands are bought and paid for commercially and with interest by the beneficiaries makes it less interesting to them.

It is worth noting that the largest Guatemalan daily newspaper had a full-page article on the Penny Foundation program with color pictures under a headline stating that "Making farms is not an easy task." This article produced very little comment, and there was no follow-up on the story, in spite of the fact that the transfer of farms to landless laborers on the south coast brought about through pressure on the government has produced news reports almost daily.

Reasons for selling or not selling to the Penny Foundation in particular and other buyers on the market:

Land owners are motivated to sell to the Penny Foundation by purely economic reasons: a good price for their land. The Penny Foundation personnel feel that they receive many offers by owners who simply feel that the Penny Foundation will pay them far more than other buyers, and many of the farms are offered at very inflated prices. There have undoubtedly been offers made to the Foundation which would not have been considered reasonable if made to private buyers. The Penny Foundation, though, has been very selective about buying, turning down obviously inflated offers for overvalued land.

There have been few instances of sellers deciding against selling to the Foundation once an offer has been made. One owner with close ties to El Salvador had had an unpleasant experience with land reform in El Salvador, thought the program sounded a little too much like "land reform," and decided not to sell. But such cases have been very rare.

There are other buyers on the market. A farmer who has had good success with a particular crop may feel he could easily double his acreage and get a good return on his investment. There is also speculation in land, where individuals buy land they feel they will be able to sell shortly at a much higher price. In short, the Penny Foundation is just one of many potential buyers of agricultural land in Guatemala.

Penny Foundation experience in terms of social and economic organization of the farm community:

Both subsistence farming and agricultural labor are concerns that involve the entire family in one way or another, and the beneficiaries in the Penny Foundation program have also involved their whole families in the enterprise.

There have been almost no problems to date in building the Penny Foundation farms into social and economic communities. The selection process is sufficiently long and careful that the Foundation has managed to achieve groups of beneficiaries that are fairly homogenous, dedicated to the program, and capable of working together for common economic ends. It has been possible to observe beneficiaries working together at common tasks, such as the preparation of coffee seedlings, that will eventually benefit the entire group.

It is important that most of the beneficiaries have had common experiences. The principally coffee farms of the coast and north have attracted people who have all worked on coffee farms doing farm labor, and this common experience helps them to see themselves and each other as members of a common community. The highland vegetable farmers also form a fairly homogeneous group, their previous common experience as subsistence corn and bean farmers providing a bond for working together in the Penny Foundation program.

The early stages of the program place the Penny Foundation in quite a paternalistic position in relation to the beneficiaries. The Foundation at the beginning often uproots the beneficiaries from their previous communities, places them in debt to the Foundation, and changes their entire previous orientation as regards their work and economic life. The dependence of the beneficiaries on the Foundation begins with the land parcel but extends to production credit as well, since the production of cash crops requires substantial infusions of capital. In addition, the work on the new farm required both individually and collectively of the beneficiaries is such that they depend on the Penny Foundation even for subsistence before the cash crops begin paying off.

The objective of the Penny Foundation program to create self-sufficient agricultural entrepreneurs of farm laborers and subsistence farmers makes this paternalistic position necessary at the beginning. But the Foundation program also includes a strategy for eventually transforming this relationship and retiring from the farms, but not before the beneficiaries are capable of running the operation on their own. To do so, the Penny Foundation has established its presence on the farm, principally in the person of the field technician, to effect the educational and organizational process required before the Foundation can retire.

Criteria for Beneficiary selection:

The Foundation program has outlined the type of person it feels is ideal for this program. The ideal participant should be a married farmer 35-40 years old with 3-4 children, who has no other profession but farming, who derives at least 75 percent of his income from farming, who has 4 manzanas or less of his own land, and who has no outstanding debts. In addition, the individual should be willing to live on this new parcel of land and be predisposed to cash crop diversification. He should also have an annual income that is roughly similar to that of the other participants.

This profile seems perfectly reasonable. Some of the criteria are obviously oriented toward guaranteeing the participants be steady, active, responsible farmers. Other criteria assure that the individual will be able to best take advantage of the program in that they have no debt burden. The income parity criterion assures to a great extent social parity on the part of the participants, and the four manzana land limit means that the new land will be placed in the hands of those that need it most.

Geographic distribution:

The Penny Foundation farms are found in three principal geographical regions of the country: the northern hills, the central highlands, and the coastal plain and piedmont. The farms in the northern and coastal piedmont regions are prime coffee producing areas of the country, although other tree crops such as cacao and citrus can be grown in parts of these regions. The one coastal plains farm is being planted in mango for export, although other cash crops might be possible there with the introduction of irrigation. One of the piedmont farms is trying pineapple for export as well as coffee. The central highland farms are almost completely dedicated to export vegetables.

Socioeconomic characteristics of the Beneficiaries:

The Foundation has been quite successful in meeting its own criteria for selection. Of 386 beneficiaries in October of 1986, 337 were married (either legally or common law), although there were 45 never married men in the participant group. The average age of the participant farmers was 35 years, although a sizable group over age 55 (about 15 percent) was included. In terms of family size, 17.4 percent had 3 children, 16.3 percent had 4 children, and 14.5% had 5 children. On the average, each beneficiary had 4.1 dependents.

As regards occupation, 316 participants had no other job. Total income as a criterion shows that 81.6 percent had incomes under Q.2000 (\$800) per year, which seems a reasonable amount for the average small farmer to earn, but 5 percent earn more than Q.4000 (\$1600) which seems higher than one would be led to expect. The fact that one individual was already making Q.13,000 (\$5200) from agriculture should have precluded him from participation in the project. As regards owning land, the project carefully adhered to its 4 manzana limit: no one owning more than 4 manzanas was admitted to the program, and 65.5 percent had no land at all. Most often they were previously resident either on or near the farm purchased by the Foundation.

The design of this program, which seeks to make land available to landless and land poor agriculturalists, does not favor the participation of women as primary beneficiaries. In Guatemala, both culturally and socially, men are the principal agriculturalists, and nearly all small farmers, the target group for the program, are men.

Two additional important points should be considered, however. First, the selection criteria do not exclude women, although their capacity to run a farm is subjected to much closer scrutiny than that of other applicants. At least three women heads of households are direct beneficiaries. On Sam Greene farm the sole female beneficiary is a non-Indian in a farm where only 21 of 128 are non-Indians. She, like the woman on San Nicolas, is a widow, whose three sons assist her in working the farm. On the Las Victorias farm, the woman was accepted on the assurance that she was capable of carrying out the hard agricultural labor required of all beneficiaries. She previously had been supporting her family doing just this sort of work.

Second, while most of the primary beneficiaries are men, the program is intended to serve household units, families which include women. The most important impact of the Project on women is in this context. Several questions deserve careful monitoring as the Project develops. What should be done to accommodate the daily needs of the families in order to reduce the turnover rate and improve the level of living in the households and communities? What protection is given the wife for retaining possession of the land in case of death or incapacity of her husband? What is the change in work load of the wives with the acquisition of land? What is the effect of the land on the income of women, which they may earn in other tasks and which they traditionally control?.

Ethnic characteristics of the Beneficiaries:

There are two principal ethnic groups in Guatemala: Indians and Ladinos, or non-Indians. The Indians are further subdivided, principally according to the Mayan language they speak. The Penny Foundation program works with Ladinos and with Quiché-speaking, Cakchiquel-speaking, and

Kekchi-speaking Indians. The Ladinos predominate on all of the coastal piedmont farms except two: Las Victorias, which is in a traditionally Quiché area, and Monte Limar, the coastal farm where nearly all the beneficiaries are from a highland Quiché town, Momostenango. Both of these farms also have a few Ladino beneficiaries, and there appear to be no problems of ethnic friction.

The central highland farms are almost uniformly Cakchiquel. This is the traditional Cakchiquel region, an area inhabited by them since before the Spanish conquest. The Cakchiquels in the Penny Foundation program differ from the others in the program in that they often possess small parcels of land, usually less than one hectare, which they have used in subsistence farming, although some have also had some experience in vegetable cash crops. They speak Spanish as well as Cakchiquel, understand credit and have used it, have well-established communities, and their participation in the Foundation program simply allows them access to acreage sufficient to transform their agricultural income from one of precarious subsistence to entrepreneurial success.

The northern farms are overwhelmingly Kekchi, although even here there are a few Ladino beneficiaries. The Kekchi Indians on the Chivité and Sam Greene farms, particularly the former, are to a great extent monolingual speakers of Kekchi and do not speak Spanish, much less read it. As a result, the educational process of informing the beneficiaries about the Penny Foundation program must be made available in the Kekchi language.

Comparison of beneficiaries to rural population as a whole The Penny Foundation has purchased farms with a view toward making good buys on farms and not with any focus on achieving a representative population of beneficiaries. Still, the beneficiaries to a great extent are representative of the composition of the rural population of Guatemala as a whole.

In general terms and for purposes of this analysis, the rural Guatemalan population can be divided into landless and land poor. The land poor tend to be Indians in the central and western highlands and Ladinos in the east. The population growth of the past hundred years and the subdivision of farms into smaller and smaller plots for distribution to children has placed the land poor farmers into a precarious position. They farm what little land they have, planting either the traditional corn and beans or converting to cash crops, but it is often necessary for them to migrate seasonally to supplement their incomes, either on the large farms, usually on the south coast, or to the city to attempt to make money some other way.

The children of the land poor often become the landless. They have accompanied their parents to the coastal farms to do seasonal work, but they now have no economic ties to their highland homes and are forced to look elsewhere. They often stay on the south coast as year-around laborers, returning to their highland homes only for special occasions. They have had less experience in operating their own farm operations, however small, and they are likely to have had a much more unidimensional experience with cash crops, often limited unskilled tasks or carrying out instructions involving agricultural technology without understanding the reasoning behind it.

The Penny Foundation effectively works with both of these two groups. The highland vegetable farmers are those who still have a little land and are able to just get by economically. The arrival of the Penny Foundation program allows them to take control of their agriculture and economic situation by allowing them to substantially improve their incomes. Their improved incomes should allow their children to dedicate themselves more fully to education so that at least some of them will be able to find productive employment outside agriculture.

The farms which are predominantly in coffee provide landless farm laborers, many of whom are the children of the land poor farmers of the highlands and east, with the opportunity to transform themselves from the agricultural laborers on cash crop farms to the owner-operators of those farms. This requires that they learn many aspects of cash crop farm operation which were formerly left to the owners and their technicians, but it is a challenge that most beneficiaries seem to welcome.

Thus the Penny Foundation program does work with a very representative sample of the Guatemalan rural population: land poor highland farmers living in their traditional homelands, the landless children of these land poor farmers looking for options away from their homes, and the permanent landless labor force on the coastal and northern farms. These are discrete categories, of course, but rather a spectrum of the various situations which are the focus of the Penny Foundation program.

Farm Organization:

The Directiva is the primary link between the Penny Foundation and the project participants. The Directiva is basically a committee which represents the entire beneficiary population, with officers which are elected annually. Its objective is the coordination product marketing, and social services. Although the quality of each Directiva is determined to some degree by the type and quality of its members, it is nonetheless possible to observe that those projects which have been in existence longer tend to have better Directivas. For example, at farms such as Venecia and Sucum I, the Directivas were interested in resolving social problems, such as education and health, as well as in the problems entailed in marketing farm products.

The technician appoints the first group of individuals to form the Directiva, a non-democratic but necessary principle during the early days of the program when not all the beneficiaries know each other. After a year a new Directiva is elected by the beneficiaries. The Directiva has seven members, and meetings are held every two weeks.

The existence of the technician should make it possible for the Directivas to avoid some of the abuses often found among the officers of similar organizations, although this has not always been the case.

Inheritance patterns:

The traditional inheritance pattern in Guatemala is to provide the male children with a more or less equal portion of the father's material wealth. There are exceptions to this scheme, in which female children may inherit or in which the children inherit from their mother instead of their father, but the above is the most common. Since most small or subsistence farmers have nothing of value other than their land, they tend to divide up the land between their male children. If they own other objects of value, however, they may divide their inheritance in such a way that some children inherit land while others inherit other objects of value.

Conclusions:

This project has shown itself to be socially and culturally feasible in the context of Guatemala. There appear to be no obstacles, whether among the projected beneficiaries or in relation to other social, economic, or political groups, which would seem to impede the smooth carrying out of the project as planned.

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152

Research Program for the Commercial Land Markets Project

The land issue in Guatemala is recognized as a constraint to agricultural development and a source of social friction. Attempts at land reform historically, such as expropriations and colonization, have been ineffective in alleviating the problems and have resulted in bloodshed and social polarization. Increasingly, a consensus is developing around the concept that the land issue be confronted by dealing with imperfections in the land market, by finding ways to increase the access of landless and land poor farmers to a market made up of willing sellers and willing buyers.

USAID initiated the Pilot Commercial Land Markets Project with the Penny Foundation "to demonstrate the feasibility of a private sector land commercialization program." Through 1987, USAID has committed US\$3 million to this effort. The Penny Foundation has purchased 19 farms with 3908 hectares and 1223 parcels to be resold to landless families. Nearly 500 families already are farming these parcels. The additional funds from this project will place the program on a financial footing that will allow it to continue independent of outside subsidies.

The impulse for this additional funding came in part from political pressures in Guatemala and increasing concern in the U.S. Congress with the implications of these pressures. In response to the U.S. Senate request that US\$5 million be committed to land programs in Guatemala, the USAID mission developed a two part project. First, recognizing the incipient quality of the pioneering effort of the Penny Foundation and the potential lessons to be demonstrated by a successful land commercialization program, most of the funds are destined to this program. At the same time, it is clear that the impact of the Penny Foundation program on landlessness in Guatemala is primarily that of a demonstration project. Actually alleviating land pressures on a significant scale will require that this experience be multiplied many times, or that alternative mechanisms to correct the imperfections in the market be devised. The research component of this project is intended to evaluate and document the Penny Foundation program so that it can be duplicated and to investigate and propose alternative approaches to the land market and to the problem of landlessness.

Four broad areas of study will be funded: (1) a baseline survey and long term monitoring and evaluation of the Penny Foundation project; (2) an analysis of the General Property Registry and development of proposals for reform of the registration process; (3) a study of the feasibility of and design for a land bank or other financial/institutional mechanisms to provide loans for land purchase; and, (4) the identification of alternative organizations and approaches to expand the land market program and/or to deal with the problem of landlessness.

158

Implementation:

The work in three areas, the evaluation of the Penny Foundation, the analysis of the Registry and the identification of alternative organizations and approaches, could be implemented as a buy-in to the LAC/DR/RD regional project (598-0538), Tenure Security and Land Market Research. The purpose of this project is "to carry out cross-country and longitudinal research on land tenure issues in the LAC region" and "to provide an instructive and informative analysis of how tenure patterns affect three sets of interrelated development issues: economic issues; rural development issues; and environmental issues."

The regional project was designed to support country specific research and draw on and contribute to the broader knowledge base. Research is either on-going or budgeted under this project with RDO/C (St. Lucia), Honduras, Ecuador and Haiti. The studies planned by the Guatemala mission fall clearly under the purview of this regional effort. The principal research areas for the LAC/DR/RD project are "tenure security through improved titling and land registration systems, the potential for farmland markets to increase access to land, and second-generation problems of existing agrarian reforms."

Affiliation with this project would insure comparability of the Guatemala studies with others in Latin America, and it will facilitate the dissemination of the research results on a regional basis. Supplemental funding is available through the regional project so that a comparative perspective can be built into the design.

The LAC/DR/RD project is implemented through the S&T Bureau Cooperative Agreement with the University of Wisconsin Land Tenure Center (LTC). LTC was formed in 1962 with funds from A.I.D. and has developed into a center of excellence recognized internationally for its work on land and rural development. Researchers from the Land Tenure Center will work closely with personnel from the Penny Foundation and other organizations included in the surveys, and with Guatemalan social scientists.

The current Cooperative Agreement with S&T/RD began in FY 1984 and will extend through FY 1988, an extension until March 1993 is currently underway. The regional project (Tenure Security and Land Markets Research) extends through FY 1990.

104

Several avenues exist for implementing the study of the feasibility and design of a land bank. This research will build on the background studies carried out by Texas Technical University for the 1983 Commercial Land Markets PID and the Pilot Project with the Penny Foundation. One option may be to contract through the Technical Services to Mission with Texas Tech. Another possibility is to seek assistance from INCAE in Costa Rica, or other contractors specializing in finance. The IAC/DR/RD regional project also could be utilized. The research will require the collaboration of representatives from the Guatemalan financial community, experts from other countries with comparable financial markets, and from the academic and international banking community.

Penny Foundation Study:

The Land Purchase/Sale Program of the Penny Foundation is the only private institution in Guatemala that makes loans to buy land, and one of the first attempts in the world to establish a program to improve small farmers' access to land through the land market. The land market approach to increasing equity in land distribution has been endorsed by A.I.D. as the model for mission-supported land programs, although it has not yet been implemented elsewhere. The evaluation and documenting of this program is important as a tool to improve this program, to provide information for other organizations in Guatemala trying to establish similar programs and to assist other USAID missions in designing land strategies and projects.

The evaluation will involve three levels of analysis of the cost and impact of the program, the beneficiary, the original farm unit and the Penny Foundation as an institution. The studies will continue through the five years of the project. The evaluation will consist of a baseline survey of a sample of Penny Foundation farm and beneficiaries in late 1987 or early 1988, and two follow up surveys in years three and five of the project. Surveys spaced at two year intervals will allow a continuous accounting of the effects of the project at the beneficiary and farm level. The surveys will be accompanied by case studies of selected farm units and an on-going monitoring of institutional changes in the Penny Foundation. The detailed case study examinations, concentrated in alternate years, will assist in the interpretation of the survey data as well as provide indepth organizational analysis.

The sample for the baseline will be drawn from farms and beneficiaries incorporated into the program by that time so that the effects of the program can be tracked over five years. Stratification of the sample will insure that it is representative of variations in farm size, region and crop. The database files maintained by the Foundation on beneficiaries and farms will be tapped for as much of the baseline and follow-up information as possible, and will serve as the frame for drawing the sample of beneficiaries. A Penny Foundation sample size of approximately 500 beneficiaries and at least 15 farms is anticipated.

123

These samples will be matched by samples of campesinos from other organizations or communities in the Penny Foundation regions. These respondents may be drawn, for example, from other private voluntary organizations, cooperatives, peasant organizations, migrant worker and/or land rental networks. The questioning of these groups will serve two ends in the project research component. First, as a control sample for the Penny Foundation surveys, they will allow cross sectional as well as longitudinal comparisons. They also will be the basis for identifying and developing the background information needed for designing alternatives and additions to the Penny Foundation program. The control samples will include from 300 to 500 campesinos. Surveys of the control groups will be timed to provide comparable data to the Penny Foundation sample.

The beneficiary-level analysis could include, among others, description of demographic characteristics and analysis of change in household characteristics including income, labor allocations, composition, level of living, off-farm employment, education and investments. Farm-level analysis could include, among others, changes in production, productivity and profitability, rate and timing of beneficiary turnover, extent of informal parcel sub-divisions, management of community-owned property and community activities, community governance. An important aspect of this analysis will be an evaluation of amount of technical assistance and production credit required for the beneficiaries relative to the debt burden incurred.

The third level of analysis for the evaluation is to monitor the institutional changes in the Penny Foundation program. Since the project funding is intended to allow the program to be established as self-supporting, this part of the evaluation will assist the Foundation in identifying organizational problems as they arise and in financing timely technical assistance to deal with them. A fund of \$100,000 is budgeted for technical assistance for the Penny Foundation in institutional and financial management. A record of the Foundation experience in program management also will be useful to other organizations designing similar programs. Some of the topics to be examined include: changes in the management requirements with an increase in the number of farms managed and beneficiaries served; trade-offs made in program expansion between factors like land cost, land sale price to beneficiaries, number of beneficiaries and farm investment costs; long term institutional financial viability; contact with other development organizations for program expansion.

The project personnel at the Penny Foundation have expressed interest in participating in these studies and in providing use of the database files. The Foundation is interested in the research in part as a means of publicizing the project. A part of the documentation of their experience might be to develop a video to demonstrate visually the changes in the farms over time.

106

The intent of the monitoring and evaluation of the Penny Foundation is to provide a constant record and tracking of the project experience. The outputs from this component will include at least, reports on each of the baseline and follow-up surveys with discussion of the three levels of analysis (beneficiaries farms and institution), and cross sectional comparisons between the Penny Foundation and the control groups. In addition, case studies of selected farms, the control groups and the project administration may be useful especially in terms of developing alternative programs. The number and content of these studies and reports will be specified at the time of funding. After the third survey, a final report will be submitted summarizing the previous reports and including the analysis of changes over time. It will specify conclusions about the effectiveness of the program and of the land market approach to land problems, and recommendations for future programming. USAID also might consider funding the preparation of documents or visual presentations which are intended primarily to educate about the program rather than to analyse it.

Researchers will work closely with personnel from the Penny Foundation and with local researchers in developing these surveys. U.S. researchers might include an agricultural economist, a land tenure specialist, a rural sociologist, a specialist in organization management and a survey specialist. Local collaborators would be drawn from similar fields but also should include agronomists and anthropologists. One or two graduate assistants will participate in the field work and the data analysis. At least three months of field work should be programmed for each survey. This estimate does not include the time required before the survey to identify the samples, especially the organizations to be used for the control groups, nor the time required after the survey for data preparation, analysis, and report writing.

Illustrative budget (US\$):	<u>1988</u>	<u>1990</u>	<u>1992</u>	<u>Total</u>
Staff salaries (20 person mos. plus fringe & insur.)	31,000	21,000	21,000	73,000
Research expenses	38,000	25,000	25,000	88,000
International travel (airfare & per diem)	23,000	15,000	15,000	53,000
Direct costs (admin, communication, etc.)	5,000	4,000	3,000	12,000
Sub-total	97,000	65,000	65,000	226,000
Overhead (26%)	25,000	17,000	17,000	59,000
Total costs	122,000	82,000	81,000	285,000

General Property Registry Study:

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The process for registering land titles in Guatemala is inefficient and costly. The March 1987 Semi-Annual Report of the Penny Foundation program cited delays in registration and title search at the General Property Registry (Registro General de la Propriedad) as one of the problems encountered in implementing the project. Registering the title transfer from the seller to the Foundation usually is done quickly, but the transfer of parcel titles from the Foundation to the campesinos has dragged on for months. The delays reflect the fact that Registry personnel are paid according to the value of the property processed. In addition, all registrations are entered by hand and there are only two offices for the entire country (in the capital and in Quetzaltenango). For the Penny Foundation program, the delays are important primarily because, without documents, some beneficiaries have questioned the legitimacy of the land sales. More generally, the delays and costs in the Registry are a constraint to developing a more efficient land market accessible to large and small owners alike. The new constitution calls for the reorganization of the Registry, and the establishment of an office in each of the 22 departments.

The Registry study has two goals, expediting the registration of Penny Foundation titles and analysing the need, goals, feasibility, and method for reform of the institution. The Penny Foundation legal procurer can assist with initial access to the Registry for analysis of registration procedures. The first phase of the study, which will begin as soon as possible after the obligation of funds for the project, will produce a report including an overview of the Registry operation and recommendations for the design of methods to speed the registration of parcel titles. The report also will specify the direction for the continuing study and design work on Registry reform.

The definition of the second phase of the study depends in part on the results of the first. The purpose of the study will be to understand the constraints to more efficient and equitable operation. Registry reform is a politically sensitive area and the extent of cooperation by the hierarchy of the Registry in defining and designing needed reform is a key research question. It also will be important to ascertain the role of the GOG and of other donors in the institutional reform. The output of the second phase of this study will be the specification of the USAID mission's role in the Registry reform mandated by the constitution. The comparative analysis of systems of mapping and registration being carried out under the LAC/DR/RD regional project will be particularly useful for this design.

The analysis of the Registry may consider the following questions, among others. What are the factors in delays in registration - personnel, recording methods, management, centralization, costs, others? How accurate is the Registry? What is the cost of maintenance? What is the extent of title registration by different classes of landholders? How does the Registry affect land taxes and revenue generation? What is the institutional history of the Registry and the property rights system? What are the social and political constraints to Registry reform?

156

Staff for these studies probably will include specialists in cadasters and land information systems, land law, and surveying and cartography and land tenure. Up to three months should be programmed for the first phase of the study. Three additional months are budgeted for the second design phase.

Illustrative budget (US\$):	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>Total</u>
Staff salaries (9 person mos. plus fringe & insur.)	16,000	8,000	8,000	32,000
Research expenses	4,000	2,000	2,000	8,000
International travel (airfare & per diem)	11,000	5,000	5,000	21,000
Direct costs (admin, communication, etc.)	1,000	500	500	2,000
Sub-total	32,000	15,500	15,500	63,000
Overhead (26%)	8,000	5,000	4,000	17,000
Total costs	40,000	20,500	19,500	80,000

External Financing and Land Bank Feasibility Study:

A program like that of the Penny Foundation requires a large grant input to capitalize and subsidize the early years. This support is required in part because the program explicitly serves landless and land poor campesinos who have minimal assets and little experience as entrepreneurs in commercial agriculture. The Penny Foundation has an intensive program which includes production credit, technical assistance, and support services as well as loans to buy land. The impact of this project on the landless population and on the openness of the land market is necessarily limited by its cost and by the institutional capacity of a private development organization.

There is no mortgage bond or secondary market in Guatemala now, and except for the Penny Foundation program, it is not possible to borrow to buy land. Creating a more open land market with increased access to land purchase for small or medium-size agriculturalists, many of whom will not need the total package offered by the Foundation, implies the development of alternative financing methods such as mortgage and/or other types of bonds, or a full public or private sector land bank. The purpose of this set of studies is to analyse the potential for a land bank in Guatemala

151

and the financing mechanisms to support this effort. The work will build on the 1983 design studies for the proposed Commercial Land Market Project and the experience of the Penny Foundation in attempting to issue mortgage bonds.

The analysis will examine the legal context for the formation of a bank and the issuing of bonds, the potential institutional context for a land bank, and the receptivity of the Guatemala financial community to the bank and the bonds. The studies also will evaluate alternative sources of funds to capitalize land purchase/sale programs of banks, private voluntary organizations or related groups. Examples of the kinds of mechanisms to be evaluated include mortgage bonds, institutional bonds, H/G type financing, long term loans from private banks, long term soft loans from the international community and endowments.

This study segment should begin within the first year of the project with the initial concentration on the external financing mechanisms. The evaluation of the potential for and design of a land bank should be completed by the end of the second year of the project. The work should be directed by a person with knowledge of third world financial markets and banking. Others on the team might include specialists in Guatemalan banking law, in finance and mortgages, a person with knowledge of the land bank system in the United States, a specialist in management and organizational design. Three to six months of field work in Guatemala are programmed for this activity.

The outputs of this segment will include one or two working seminars with representatives from the Guatemala financial community, experts from other countries with comparable financial markets, and from the academic and international banking community. Their purpose will be to (1) brainstorm about potential financing mechanisms and land bank possibilities and to (2) evaluate the designs developed for Guatemala. The study team will submit reports on the results of the seminars and on the evaluation of the external financing mechanisms. They also will provide a design of a land bank and/or comparable alternative, including cost estimates, sources of funding, and evaluation of the potential for institutional success and for its impact on the land market. A central task will be to identify appropriate counterparts and implementing institutions.

1/17

Illustrative budget (US\$):	<u>1988</u>	<u>1989</u>	<u>Total</u>
Staff salaries (3 person mos. plus fringe & insur.)	5,000	5,000	10,000
Research expenses (incl. seminars)	26,000	26,000	52,000
International travel airfare & per diem)	4,000	5,000	9,000
Direct costs (admin, communication, etc.)	1,000	1,000	2,000
Sub-total	36,000	37,000	73,000
Overhead (26%)	9,000	10,000	19,000
Total costs	45,000	47,000	92,000

Studies of Alternatives and Additions to the Penny Foundation Program:

Although the Penny Foundation program has met its goals successfully, it remains a pilot project. The next step is to identify ways to amplify its impact on the problem of landlessness. The development of a land bank and external financing is one option for expanding the land market program, based on a large capital investment and service primarily to small and medium-size farmers rather than to the landless population. The purpose of this set of studies is to explore other alternatives. Research is needed to (1) identify organizations to develop additional projects like that of the Penny Foundation, (2) to evaluate alternative avenues to increase land access through the land market, and (3) to investigate the links between land programs and other sources of rural employment and income.

These studies will draw heavily on the data collected in the baseline and follow-up surveys for the Penny Foundation evaluation, and supplement them with contextual, historical and institutional data specific to each research problem. Because of their link to the baseline and follow-up surveys, work on these problems should begin at the same time as the survey so that pertinent variables can be included in the questionnaires and so that the control group samples for the survey will be adequate to address these topics. This group of studies will extend through the life of the project. They will involve substantial collaboration with local researchers.

161

An important first step will be to identify alternative organizations for additional purchase/sale programs. This work should begin as soon as possible so that these organizations or communities can be included in the samples for the control group surveys and so that decisions concerning the design of alternative or expanded programs can be made expeditiously. Potential groups for consideration include national or regional nongovernmental development organizations like the Penny Foundation, government land programs, public or private bank lending programs and savings cooperatives.

The purpose will be to compile a list of these options, and to provide the background information and analysis to develop similar programs to finance land purchasing for other sectors of the landless population, either through the Penny Foundation or independently. Particular attention will be given to reaching people who are not served by the Penny Foundation, such as land poor or tenant farmers who may not need extensive technical assistance, or beneficiaries in particular regions of the country. A central focus must be on the availability of production credit as an essential element of a land purchase program.

In addition to the information gathered from the surveys, this activity will involve case studies of at least three of these organizations or programs. The researchers will produce a report identifying and analysing the organizations to manage land purchase/sale programs, including an affirmation of their interest in the program and detailing proposals for new projects.

The second major focus in the search for alternatives to the Penny Foundation program will be on the land market itself. The purpose will be to seek basic information on how the market operates and on the policy and institutional constraints which affect it. What are the necessary conditions, and institutional and policy frameworks needed to create dynamic land markets which operate to benefit small farmers and the landless? These studies will produce one or more reports detailing the policy and project implications of the land market studies, especially the analysis of land rental markets. They will be developed through a combination of analysis of the survey data and the use of case study and archival data collection methods.

The following are examples of the types of questions which will be investigated. How can a land market for small farmers be stimulated? What would be the effect of improving the title registry, reducing market transaction costs, providing funds to buyers, instituting inducements such as taxes to sellers? Most of these questions are anticipated in the recent GOG statement on agrarian policy.

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What are the patterns of land tenancy regionally? What is the extent of the rental market? What types of land and what size of units are rented? How long do rental contracts run and how are they regulated? What are the characteristics of the owners and renters? Does land rental offer a viable alternative avenue to land access for some landless? Similarly, what are the conditions, characteristics, extent of, regulation of sharecropping arrangements?

The third area of investigation of alternatives to the Penny Foundation program will confront two concerns which come up in any discussion of the land problem in Guatemala: (1) there is not enough land to satisfy all those in rural areas who are without land; and, (2) land purchased in family-size plots now will be minifundia in the next generation as the children claim their inheritance. These studies will be concerned with non-land sources of income and employment in rural areas. They will investigate the relationship between land tenure and other sources of employment and income for rural households, and develop project and policy alternatives which link land market programs to other rural development objectives. The necessity of identifying these links and expanding rural employment opportunities is cited in the most recent USAID Action Plan, in the GOG agriculture policy statement and in the Penny Foundation insistence on developing educational services on the farms.

The survey data from the Penny Foundation evaluation provide an ideal opportunity to investigate these questions and the analysis will contribute to interpreting the long term impact of the Penny Foundation program. Case studies to gather in-depth information on particular communities will supplement the surveys. The outputs from these studies will include at least three reports on the policy and project implications of the research with emphasis on the non-farm employment and income opportunities for the landless and land poor and on the second generation effects of land market projects.

The following are potential study topics. The first would address the effect of land tenure on the options of the next generation. In addition, in contrast to most studies which concentrate on the effect of land and agriculture on the family unit and on men as farmers, this study would look within the household to the effect of land on women's activities, income and outside employment. What are the sources of family income and the distribution of household labor? How do these factors vary by land tenure status? How do they change with land purchase? In particular, what is the relationship between tenure status and status change and the work of women and their contribution to household income? What is the relation to child labor and education?

Particularity in the Penny Foundation program a study could examine employment creation. What is the relationship between land parceling and sale and the development of small businesses or other non-agricultral income opportunities in the farm communities or in the surrounding areas? Again focusing on both the immediate and the second generation impact of land tenure: How does land ownership (and change in tenure status) affect migration, either seasonal or rural/urban? Who migrates, and for what purpose?

Illustrative budget (US\$):

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>Total</u>
Staff salaries (10 person mos. plus fringe & insur.)	7,000	8,000	8,000	8,000	8,000	39,000
Research expenses	7,000	9,000	9,000	9,000	9,000	43,000
International travel airfare & per diem)	5,000	6,000	6,000	6,000	6,000	29,000
Direct costs (admin, communication, etc.)	1,000	2,000	2,000	2,000	2,000	9,000
Sub-total	20,000	24,000	24,000	24,000	24,000	120,000
Overhead (26%)	5,000	6,000	6,000	6,000	6,000	31,000
Total costs	25,000	30,000	30,000	30,000	30,000	151,000

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164

Technical Analysis

Background

In 1984, USAID/Guatemala initiated the Pilot Commercial Land Markets Project with the Fundación del Centavo (Penny Foundation) on the basis of a \$1 million grant (Project 520-0330). The goal of the project was "to demonstrate the feasibility of a private sector land commercialization program" by establishing a mechanism to permit small farmers to purchase arable lands and to provide them with production credit and timely technical assistance. An additional \$1 million was added in each of the following years (Project 520-0343). While the pilot project has confirmed the feasibility of a commercial land market program, it also has shown that for most campesinos the shift from farm laborer to farmer requires not only ownership of land but also access to credit and training in commercial agriculture. A land purchase/sale effort alone will fall short of the goals of increased income and living standards for a significant portion of the target population in rural areas. A recent evaluation of the project (File Attachment) shows an innovative program which has exceeded its targets for the amount of land purchased and the number of beneficiaries served. The Foundation has maintained an autonomy from USAID, which is essential in this politically sensitive activity, but has been open and cooperative in terms of reporting requirements and evaluation.

When the U.S. Senate appended a recommendation to the Foreign Assistance and Related programs Appropriation Bill for 1987, that US\$5 million be set aside for Guatemala land purchase programs USAID considered several options. These included dividing the funds to implement several projects like that of the Penny Foundation, obligating a part to the Penny Foundation, a part to the government and a part to cooperatives, and adding to them in order to capitalize a land bank or a Central Bank guarantee fund. These alternatives were by-passed for the present because all require substantial background investigation and design before they can be funded. In order to respond to the Senate recommendation in a timely manner, the Mission decided to commit about \$4 million to the successful on-going Penny Foundation program. Up to \$1 million was to be retained to fund studies of alternative land market financing entities, reform of the land registry and studies of Guatemala's land problems. This research was to be done in anticipation of future land programs.

Land Tenure in Guatemala

Land ownership in Guatemala, even more than elsewhere in Latin America is characterized by a skewed distribution and a pattern of minifundio/and latifundio. Large owners tend to control the most productive farmland on the coast and in the fertile mountain valleys where they concentrate on extensive export production. Small farmers with minimal resources and a dependence on subsistence crops engage in intensive cultivation of steep hillsides, which not only limits their productivity but also contributes to erosion and environmental degradation.

In addition to the minifundio/latifundio pattern, the presence of nearly 400,000 agricultural workers who own no land magnifies the land pressure, while the skewed ownership distribution has resulted in substantial expanses of idle lands (tierras ociosas); privately-held lands which are abandoned, uncultivated or undergrazed.

The unequal land distribution, extensive farming and idle lands are associated with lagging agricultural production overall, a shortfall in the production of consumption crops like corn and beans, and an inability to translate agricultural growth into improved standards of living and reductions in rural poverty. Historically, land tenure problems also have been the source of rural social unrest and violent confrontations. Today this same political tension is manifested in the campesino movements which have crystalized first on the south coast and recently in other regions.

Justification for the Land Markets Approach

Political Context:

Land tenure is an economic issue since it defines the structural context for agriculture. It is almost always a political issue as well, and in Central America as a whole and Guatemala in particular it has been an extremely volatile issue. Both Nicaragua and El Salvador have carried out massive agrarian reforms based on expropriation of private lands during this decade. Large landowners in Guatemala, represented at the national level by UNAGRO, are sensitive to any indication of the possibility of expropriation in this country and they are determined to protect their interests.

The entrenchment of the large landowners in opposition to land redistribution is countered by the recent emergence of campesino organizations who are calling for government assistance in gaining access to land. The largest of these movements is the Movimiento Pro-Tierra, led by Padre Andres Giron, with headquarters in Nueva Concepcion, Escuintla. The movement is expressly non-violent and wants assistance in purchasing farms to be re-sold to landless campesinos. Initially, the organization outlined a model of corporate farm organization; more recent statements point out that farm organization will be based on agronomic considerations, and some farms may be more effectively sub-divided and farmed by individual small owners.

The Ministry of Agriculture recently issued an agrarian policy statement which affirms that expropriation of land is not an option for improving land use in rural Guatemala. Land taxes, colonization and land market activities are being promoted to address the land problem, but land remains a polarizing issue. All parties seem to agree that expropriation is not a viable option for Guatemala, and there is considerable support for open market land purchase programs, although many questions remain about implementation. As the government policy paper states "The alternative is clear: either the private sector, the campesinos and the Government unite around a program with both short and medium term goals to reduce rural misery, or the pressure of poverty will become so great that it will be impossible to find peaceful solutions."

Alternatives:

The commercial land market approach to "the land problem" has advocates within the government, the campesino movements and some large landowners. Although there are differences of opinion about how the farming units should be organized for and by small holders, there appears to be some consensus in

the need to develop mechanisms to make land which is abandoned, underutilized or on the market for some other reason, available for purchase by the landless and land poor. The Penny Foundation with funds from USAID, has developed and tested one model for a land purchase/sale program.

There is also consensus that land expropriation should not occur in Guatemala. The memory of the violent backlash to the expropriations of the 1950s and the inefficiencies observed in the parcelamientos of the early 1960s, have turned the GOG's attention to other alternatives. Colonization projects have been shown to be unjustifiably expensive (see Evaluation of the Ixcan Colonization Project, January 1984). They uprooted whole communities from the highlands and resulted in the deforestation of fragile tropical land inappropriate for farming. Many of these lands are now abandoned. The tax on idle and underutilized land, intended as an incentive to landowners to either use their land productively or sell it, is minimal, ineffective and difficult to enforce.

U.S. Policy Context:

While the immediate impulse for expansion of the Pilot Commercial Land Markets Project this year came from the U.S. Senate, attention to the rural land distribution as a constraint to agricultural and rural development and a cause of rural poverty, urban migration and civil unrest is not new. In 1984, the Kissinger Commission cited the need for a more equal distribution of income and wealth, including land. The Commission report specifically recommends that long term credit be made available to small farmers for land purchase as a means of redistributing land and increasing agricultural production. The financial support base should be strengthened so that new property owners can improve their standards of living and former owners can be compensated for their land. The report also recommends efforts to improve land title registration and to protect the property rights of farmers.

USAID/Guatemala contracted a study, Land and Labor in Guatemala: An Assessment (i.e., the Green Book) in 1982, to provide an assessment of historical and current "agrarian transformation" problems and to suggest a prospective set of possible future actions by the Guatemalan Government. The study was the subject of a large negative media campaign and condemned by the large landowners as a call for land reform. A \$20 million Commercial Land Market project proposed in 1983 but not implemented grew out of this study. USAID initiated the current pilot project in late 1984.

The Penny Foundation project is the only commercial land market project currently supported by A.I.D. in the world. It has taken on new importance for the Agency with the clarification of A.I.D. policy for land tenure programming. The A.I.D. Policy Determination on Land Tenure (PD-13, May 9, 1986) points to the role of land as a fundamental factor of all agricultural production and "is specifically concerned with programming A.I.D.'S resources to support increased productivity of land as a factor of production in a context of equality of opportunity for access to land". It states that "A.I.D. will also support programs that broaden the opportunity for access to agricultural land, promote tenure security and stimulate productive uses of land to ameliorate the barriers to market entry that exist in some LDCs."

16/1

Further, A.I.D. is prepared to assist countries in land market programs that (a) promote transactions between willing buyers and sellers; (b) promote transactions which occur for economic gain; (c) allow for the wide dissemination of the opportunity to buy the land; (d) land tenure is sufficiently secure so that land transactions can occur. The project not only demonstrates the viability of this approach to improving access to land in Guatemala but may serve as a model for similar programs in other countries.

Components of the Commercial Land Markets Project

The Penny Foundation land program purchases land from large landholders, sells land to land poor and landless beneficiaries; and provides technical assistance and production credit to the beneficiaries to increase the productivity of their land and insure their profitability. The current Commercial Land Markets Project amendment will expand the program with the Penny Foundation and include a research component which will be administered separately.

The Penny Foundation Component: In the on-going project the Penny Foundation (a) negotiates the purchase of farmland on the open market, paying up to 50 percent in cash at the time of sale and the balance in five year certificates of guarantee; (b) divides the farm in commercially viable, family-sized parcels; (c) selects eligible participants to purchase the parcels; (d) finances the sale of individual family-sized plots to selected participants; and (e) provides technical assistance and production credit so that the participants can become acquainted with the new crops and technology.

The Penny Foundation acts as broker for all aspects of the land purchase and sale so that sellers deal with the Foundation rather than with a group of potential buyers. In effect, the Foundation becomes owner of the property, using the USAID grant to pay half of the purchase price in cash, and covering the remainder with certificates of guarantee. After parceling the land the Foundation re-sells it to individual campesino farmers with a 10 percent down payment and 10 year mortgages. The Foundation pays 9 percent interest on the certificates of guarantee; the campesino mortgages are assessed 12 percent interest (projected to increase to 14 percent).

Technical assistance is provided by university trained agronomists (ingenieros agronomos) who are responsible for overseeing farms on a regional basis, and agricultural technicians (peritos agronomos) who live on the farms. The technicians make day to day decisions about farm management, train the beneficiaries in farming methods for the new crops, and work with the beneficiaries to develop other aspects of the farm communities.

The Foundation provides both production and subsistence credit to the beneficiaries. The amount and terms of the credit vary by farm. Beneficiaries on farms which generate immediate income (vegetable farms) receive annual credit; for those on coffee farms which come into production after four or five years, credit accrues throughout this period. Twelve percent interest is collected on production loans.

165

As of the summer of 1987, the Foundation has budgeted approximately 50 percent of the USAID funds for the actual purchase of the land. Allocations for production credit have accounted for about 23 percent with the remainder going to technical assistance and administration. Because the Foundation has paid only half of the purchase price in cash, the remainder is financed by the seller who receives certificates of guarantee from the Penny Foundation. One dollar of A.I.D. funds buys two dollars worth of land. The obligations that the Foundation has accumulated in the certificates of guarantee, the costs of technical assistance and the outlays of production credit for the farms purchased during the first three years of the project, mean that the proportional amounts to be spent for land and the other components cannot be maintained at the same rate. These costs must be covered with cash during a period when many of the beneficiaries are not yet recognizing income from their new land and therefore are not making land or other debt payments to the Foundation. (See Economic and Financial Analysis.)

The design of a commercial land purchase/sale program with technical assistance and credit is defended on several grounds. Historically, experience with agrarian reform worldwide has shown that access to land, while often a necessary, is not a sufficient condition for landless campesinos to move out of poverty. Access to production credit has been identified as an essential ingredient for most commercial agriculture; often campesinos who have not had land need training in how use credit as well.

In the current Project, the campesino farmer must be involved in commercial agriculture if he/she is to pay the market rate for the land and survive and support a family on a 2.8 hectare parcel. In most cases, the land poor and landless who are eligible as beneficiaries of the program have been working as daily or resident laborers on large estates. Although many have planted small plots in corn and beans, their experience as laborers has not given them an overall sense of the process of growing coffee, cacao or vegetables. They have followed orders on a day-to-day basis. Technical assistance is needed not only to provide the training in the agronomics of the commercial crops but also in the decision-making and planning processes that are necessary to be an independent entrepreneur rather than an employee. Finally, financially profitable commercial operations particularly in permanent crops involve substantial capital investment up front. These beneficiaries have little or no savings or alternative sources of income and would be unable to make these investments without the initial technical and credit assistance from the Foundation. The investments of labor and credit also substantially increase the value of the land (e.g., through the presence of permanent crops).

The Research Program Component: The new project will include a sizable research component to the study four broad areas: a baseline survey and longterm monitoring and evaluation of the Penny Foundation project; an analysis of the land registry and development of means for facilitating the registration process; an examination of additional organizations, land tenure programs, and land-related employment activities which could be important in dealing with the land problem; the design of a land bank or similar financial and institutional mechanisms to improve the functioning of an open land market.

169

The Penny Foundation project is a unique effort to attempt to improve access to land for small farmers through the land market. Although the approach was endorsed recently by A.I.D. as the model for mission-supported land programs, to date the pilot project in Guatemala is the only A.I.D. activity in the world where this approach has been implemented. The on-going monitoring and documenting of the costs and effects of the land market approach is needed for developing future programs in Guatemala; it also can provide important insights for other countries in developing strategies and designing programs to cope with land problems. The evaluation and monitoring will consider three levels of program impact, the beneficiary household, the farm unit (i.e., the original farm purchased) and the institution (the Penny Foundation).

Although the Penny Foundation Project has met its goals successfully, it remains a pilot Project. Even with the injection of additional funds, the substantive impact of this Project on the problem of landlessness in Guatemala is miniscule. There are institutional limits to the expansion of a land market program within a private foundation (see institutional analysis), and research is needed to identify additional organizations which can carry out similar projects, to evaluate alternative avenues to increase land access (e.g., land rental markets), to explore the means to build on the Penny Foundation experience to create a land bank. The objective of these studies will be to define the possibilities for an expanded A.I.D. land-related program. Recognizing as well that the land problem in Guatemala is not solvable through land purchase and sale alone, research will be undertaken to investigate the links between land programs and alternative sources of rural employment and income. These land-related studies will build on the data being gathered for the baseline and monitoring analysis and for the land tenure research. Finally, delays in title search and registration in the national land registry have been a problem for the purchase/sale program of the Penny Foundation. The analysis and proposals for alleviation of these problems will be directed both to facilitating the on-going project and to reforms needed for a more efficient land market overall.

Justification for Selected Project Activities

The Penny Foundation Land Purchase/Sale Program:

Given the Mission decision to obligate additional funds for expanding the Penny Foundation program, the principal tasks of the project design team have been to analyse the amount of money needed, the potential sources of funds, and the management capacity of the program. The technical analysis discusses only the first two topics. The question of managerial capacity is the subject of the institutional analysis and recommendations from that analysis have been incorporated into the project design.

The Mission began with the intent to commit additional funds to the project to expand beyond the stage of a pilot project. The cost and income data from the first three years of the program were used to project cash flows for the next decade. The cash flow analysis showed that the program was facing a serious cash shortfall, and without continued USAID support, the Foundation would have had to stop buying land and find other funds to meet its deficit.

With USAID grants of \$2 million in 1988 and 1989 (and no funding after that time), the program would be able to purchase only 890 hectares per year and remain solvent. The Foundation would not be able to buy as much land because half of the new grant money would have to be used to cover the costs of existing farms. If USAID insisted that the Foundation continue to use the new grant with the same proportions going to land purchase and other program activities as in the past, the program would merely be digging a deeper financial hole, and USAID would have to continue subsidizing the program.

Given this scenario, the design problem became that of analysing the amount of money needed. To decide this amount, the conflicting demands of two issues had to be resolved: (1) how to increase the amount of land purchased and resold to the landless and land poor; and (2) how to establish a viable, permanent program within the Penny foundation for the on-going purchase and sale of land. Various options and trade-offs within each program activity were considered.

Land Purchase:

The Penny Foundation purchases land on the open market, seeking land at the best possible price, with the agronomic potential to support families on relatively small parcels of land. Land which is undeveloped or abandoned, with little infrastructure costs less per hectare than land which is planted in coffee or has irrigation or terracing. Land in the Altiplano suitable for winter vegetables and therefore an immediate income from annual cash crops is more expensive than land suitable for permanent crops which require several years to produce. With limited funds for land purchase, buying more expensive land means that fewer hectares are purchased and therefore fewer campesinos can enter the program as beneficiaries. On the other hand, the more expensive land eases the Foundation cash flow problem because the longterm credit is replaced by production credit which circulates annually.

To this point the policy of the Foundation program has been to purchase farms in all regions of the country, some suitable for permanent crops, others suitable for seasonal crops, some with infrastructure and others without. The decision to purchase a particular farm is guided only by price and agronomic potential. The Economic Analysis shows that the price paid for the land already purchased by the program has been justified according to the criteria of agronomic potential. The recent project evaluation indicated that, overall the price paid reflects skilled negotiating within current market rates.

Using the method of evaluating each farm according to its individual merit for the program, the Foundation has achieved a defensible balance over the past three years between seasonal and permanent crops, land with and without infrastructure and farms located in various ethnic, geographic and political regions of the country. The design for the next five years of the project assumes that this same balance will be maintained. The cash flow projections used to reconcile the issues of program expansion and institutional viability assume that the Foundation will buy land at an average price of \$900 per hectare in 1988, with an annual six percent increase after that. This figure, which takes account of escalating land prices, was derived

in consultation with the Foundation by roughly balancing the average negotiated price paid per hectare over the past three years with an estimate of the average current asking price. If this estimate is too low the Foundation will purchase less land.

A second possibility for easing the cash flow problem would be for the Foundation to pay cash for the entire price of the land, and thus avoid the cash shortfall incurred by the five year difference between the five-year certificates of guarantee offered by the Foundation (nine percent interest) and the 10-year mortgages of the beneficiaries. Program personnel also argue that with cash they would have less difficulty negotiating sales and could get a lower price for the land. The trade-off would be less land purchased in the short run.

The budget for the project add-on assumes that the current practice of covering approximately 50 percent of the purchase price with 5-year guarantee certificates will continue. While it may complicate the negotiating process, the amount of land that has been purchased shows that it is workable within the current market, and it nearly doubles the number of hectares purchased with dollars donated. The presence of the guarantee certificates as counterpart funds also insures that the Penny Foundation program remains a Guatemalan rather than a USAID land purchase/sale program.

The Penny Foundation experience during the past three years has confirmed the findings of a pre-project study on the Supply and Demand for Land in Guatemala (1983) that there is adequate agricultural land available on the market. Further, the Penny Foundation has considerable flexibility in negotiating in this market because unlike the GOG, it is not forced to buy quickly to satisfy constituent demands. Given the present level of land purchase by the Foundation there is no evidence that its activities affect the market by inflating prices, and the Foundation can wait out short term price increases such as those created when the GOG is forced to go shopping.

Land Sale:

Land purchased by the Foundation from large landowners is divided into 2.8 hectare parcels and re-sold to landless or land poor campesino farmers (beneficiaries). The recent project evaluation showed that the beneficiary population matches the profile sought by the Foundation. The campesino families taking advantage of this program are agriculturalists, with few assets and little or no land. The program espouses an objective selection procedure, based on individual qualifications. Again, the evaluation and the social soundness analysis report that the stated procedure is used. In most cases the beneficiaries are drawn from the area around the farm although there is no policy against selling to migrants from other regions.

The program has had no difficulty in locating beneficiaries and selling the parcels as they become available. There has been, however, an average turnover rate of about 10 percent of the beneficiaries across the 19 farms. Turnover is much higher on some farms than others, reflecting the harsh living conditions on the formerly abandoned properties and the intensity of the work required to plant permanent crops. Most who leave the program drop out

before the lottery to distribute the parcels, although a few have departed later, suspicious that they were being used merely as cheap labor since they were given no land titles. The subsistence credit included in the program and the emphasis given to traditional activities like housing, potable water and education are intended to cope with the harsh conditions. The General Property Registry is responsible for the delays in issuing parcel ownership titles. One of the studies included in the research component of the project will focus on how to correct this problem. (Exhibit H)

The sale process involves the simultaneous selection of the beneficiaries and the surveying and parceling of the farms. The cost of the parcel for the beneficiary is the price paid for the farm plus the cost of surveying and parceling divided by the number of parcels. The Penny Foundation program is firmly committed to parcels with individual titles. The GOG on the other hand advocates the development of cooperative farms, while the first properties of the Movimiento Pro Tierra are to be organized as agro-industry centers in which the beneficiaries are shareholders rather than individual property owners. The Foundation personnel base their decision on their previous unsatisfactory experience with cooperative farms, and, they argue, the campesinos themselves prefer individual titles. At the same time, the Foundation farms involve some communal activities and parts of the properties (demonstration plots, schools, coffee processing plants) are owned by the

rather than actual farm earnings. In addition, in a new, pilot project of this sort even the appearance that the Foundation is profiting from land sales could be detrimental to all future land market programs.

Farm Management: Technical Assistance and Credit

The most expensive aspect of the Penny Foundation program is the investment in the land after purchase. Through 1991, the amount spent on investment and production credit, and agricultural technical assistance is estimated at \$4.20 for each \$1.00 paid for land. The Penny Foundation directly manages and supplies all technical assistance and credit for the beneficiaries, in order, they argue, to avoid political manipulation of their program and to insure the timeliness of these essential inputs.

All technical assistance on the farm is the responsibility of the resident agricultural technician, managed and assisted by the regional agronomist. In addition to providing guidance and training in agriculture, the Penny Foundation seeks to assist the beneficiaries in other aspects of life in the new communities including housing, education, medical care, and community governance, and organization. These programs reflect the Foundation's rural development philosophy which has evolved over the past 25 years. The Foundation leadership sees the land program as the base for expansion of these traditional programs. At the same time, these activities are integral to the success of the land program. Access to land, they argue, is meaningful only if it results in improved living conditions for this generation and the next. USAID funds in this Project will be used only for agricultural technical assistance; the traditional programs on the farms will be supported by counterpart funds.

Production and subsistence credit loans will account for almost 60 percent of the new USAID grant to the Penny Foundation land program. The increase from 23 percent of the first \$3 million is due both to an absolute and a proportional increase in the amount of land under production. Also, as cost of production goes up, credit amounts must also increase. The development of permanent crops like coffee require four years of credit before any crop income, and therefore repayment, is possible. During the first years of the project, money is only lent for these farms. The amount spent on subsistence credit is also directly related to the proportion of farms with permanent crops.

In developing the cash flow projections for the project extension, a five percent annual increase in the beneficiary's cost of production is assumed. Also, beneficiaries with seasonal crops will pay back production credit annually, and will pay for the land in the 10 years after their first harvest. For beneficiaries growing permanent crops, on the other hand, land costs and long-term credit will be paid back within 10 years after the first harvest, which, for example would be the fourth year after planting coffee. This assumption differs from the Penny Foundation estimates that all debts will be met within 10 years after planting. The projection is based on a 100 percent repayment rate, an assumption justified by the less than one percent default rate in Penny Foundation traditional lending programs, and the presence of the land as collateral.

174

In looking at the trade-offs involved in the funding of this program, three types of questions were examined for credit and technical assistance: (1) are there alternative and perhaps less costly sources for these services? (2) is the amount of credit and technical assistance justified? and, (3) what are the trade-offs available in terms of credit and technical assistance costs and the amount and types of land purchased?

The Financial Analysis argues that there are no viable alternative sources for investment and production credit, particularly long-term credit. The question of alternative sources of technical assistance is discussed briefly in the institutional analysis. By hiring the technicians and agronomists directly, the Foundation is assured that high quality, timely technical assistance will reach the farms. Further, because the technician resides on the farm he fulfills a variety of functions beyond that of agricultural extension. The GOG agricultural extension service is understaffed in the field and has set program priorities which do not necessarily correspond to the needs of the Foundation farms.

The control of technical assistance and credit services by the Foundation itself also is justified by the fact that this is a pilot project, with the purpose of demonstrating the feasibility of the land market approach to the land problem. As a demonstration project, conditions should be set so that it is not undermined by problems of coordination which could be controlled. To some extent, this argument also applies in examining the amount of technical assistance and credit. Further, the program at the Penny Foundation is staffed by agronomists who are experts in farm management, and the projected incomes for the beneficiaries and production for the farms give an economic justification for the level of inputs.

The fact that the investment in credit and technical assistance is more than four times the investment in land, is not exorbitant in view of the experience elsewhere. For a person entering farming in the United States, the investment in land is only half of the total initial investment needed. The ratio would be expected to be larger in Guatemala where land costs are relatively low and the land is less developed and requires more inputs. Further, agriculture in the tropical zones has been shown to require about six times the amount of pesticides as agriculture in the United States.

Historically, in Latin America, the expected benefits of agrarian reform often have not been realized because sufficient resources were not committed to the investment in the land and the farmers after the land was re-distributed. The Penny Foundation itself was involved in a land sale program on a very small scale in the early 1970s. The beneficiaries of these sales are basically subsistence farmers today, which Foundation personnel say is due to lack of follow-up services after the land sales. At the same time, the question of the appropriateness of the level of services should be monitored as a part of the project evaluation. Comparisons between the Penny Foundation beneficiaries and the control groups will be the basis of this evaluation. The lesson from the Penny Foundation program to date seems to be that the costs of credit and technical assistance are crucial constraints to a successful commercial land market program. On the other hand, excessive credit and technical assistance expenditures could have a conservative influence on the program by severely limiting its potential size and impact.

175

The third major issue is the potential trade-off between the amount of credit and technical assistance and the amount and types of land purchased and their effect on cash balances. On the most general level, since credit and assistance costs represent capital investment in the land, the ratio of these costs relative to land costs could be reduced by purchasing land at a higher price with more infrastructure and/or permanent crops already in place. As a result, less land could be purchased for fewer beneficiaries. In addition, principal repayment and interest payments from the production credit are a source of cash for the program.

In project design, the credit and technical expenses established over the past three years were used to indicate the amount needed for the future. Five percent increase in the beneficiary's cost of production was built into the model, as well as a gradual increase in the proportion of land requiring credit, to account for more land being brought into production.

Using these assumptions, and cost and income data from the first three years of the program, a model was developed to project forward the cash flows for the next decade under several scenarios of USAID funding (see Financial Analysis). The scenario selected, a grant of US\$7.75 million to the Penny Foundation over the next five years will allow the Foundation to continue purchasing land at a rate comparable to the past three years, to continue to supply the same levels of credit and technical assistance, and to remain financially solvent. At the end of five years, the program will be in a position to continue to function without further grants.

External Financing as a Source of Project Funds:

Cash is necessary for the Penny Foundation to expand its program. The Foundation raises the needed cash from donations, revenues from its sales of commemorative products, interest and principal collections from its credit programs and land sales, and debt. An analysis of the Foundation's ability to incorporate debt into its growth strategy indicated the need for extreme caution. If the Foundation increases its debt, it must also increase its debt carrying capacity.

Generating cash through the sale of mortgage bonds was originally considered as a possible method of supporting the program. Close analysis indicated that mortgage bond financing was not appropriate for the Penny Foundation, even though the Foundation probably could have sold the bonds to local banks, insurance companies and pension funds.

The Foundation contemplated test issuance of \$1 million in mortgage bonds at 12 percent payable over five years, but did not follow through with the registration. This may have been fortuitous. If the Foundation paid off seller financed debt with the proceeds of a bond sale, it would have only changed seller financed debt to bond debt. To service the bonds and pay them off at maturity, the Foundation would have had to reduce its land program or raise higher revenues from the program. If the Foundation used the bond proceeds to expand the program without improving its revenues, it would be setting itself up for a serious cash crunch when the seller financed payments and bond debt came due. Making these payments would probably require another

bond issue, which in a weakened financial position would increase the cost of the next round of borrowing. The debt load would accelerate until the next maturity date when the same predicament would arise.

The Foundation already has access to and use of loans for its operations, raising the question of why it should seek bond debt anyway. It purchases land with a 50 percent down payment and has the seller carry the remainder over five years at nine percent interest. Seller financing at nine percent is obviously better than bonds or bank loans at 12 to 16 percent. It has soft dollar loans, although the Quetzal devaluation reduced their softness somewhat, from Solidarios, a Latin American federation of non profit development organizations, that it uses for its traditional programs. In addition to being at 5 percent, they have 15 years left until maturity. Moreover, if needed for short-term lending, the Foundation is confident it could obtain a simple bank loan without the expense of underwriting bonds. The Foundation's debt strategy is not constrained by an absence of loans, but rather the terms.

The Foundation's land program needs long-term, local currency debt financing that complements its revenue base. It carries its land sales to campesinos for 10 years, often with a first payment deferral of three years. The Guatemalan bond market sets five years as long-term. Obviously, the borrowing and relending do not match. Creating and promoting a long-term lending market to better meet land lending needs is not a function of the Penny Foundation. A long-term lending market will require banking policy changes and legislation to determine mortgage and collateral requirements. Project Paper guidance from LAC/DR/RD noted the complexity of initiating a program of long-term bond or HIG type financing to support land purchases. The guidance recommended an examination of alternative external land financing as part of the Project's research component. This analysis concurs with the recommendation and has designed the Project accordingly.

Project Research Component:

A detailed description of the research component, of the implementation procedures and of its technical feasibility is found in Annex II, Exhibit H.

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177