

# A.I.D. EVALUATION SUMMARY PART I

67857

(BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS)

**A. REPORTING A.I.D. UNIT:**

RHUDO/SA  
(Mission or AID/W Office)

(ES# ESEC-006 )

**B. WAS EVALUATION SCHEDULED IN CURRENT FY ANNUAL EVALUATION PLAN?**

yes  slipped  ad hoc

Eval. Plan Submission Date: FY     N/A

**C. EVALUATION TIMING**

Interim  final  ex post  other

**D. ACTIVITY OR ACTIVITIES EVALUATED** (List the following information for project(s) or program(s) evaluated; If not applicable, list title and date of the evaluation report)

Project #	Project/Program Title (or title & date of evaluation report)	First PROAG or equivalent (FY)	Most recent PACD (mo/yr)	Planned LOP Cost ('000)	Amount Obligated to Date ('000)
518-HG-005	INTEGRATED SHELTER AND URBAN DEVELOPMENT PROGRAM (SOLANDA)				
518-0022	(GRANT COMPONENT)	09/30/83	03/31/87	630,000	630,000

**E. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR**

Action(s) Required

Name of officer responsible for Action

Date Action to be Completed

THE SOLANDA PROJECT HAS BEEN COMPLETED. THE MISSION VIEWS SOLANDA AS A SUCCESSFUL ACTIVITY, ONE WHICH HELPED TO INTRODUCE IMPORTANT CHANGES IN THE GOE APPROACH TO LOW-COST HOUSING. IN EARLY CY 1989 THE MISSION BROUGHT A CONSULTANT TEAM TO QUITO TO PERFORM AN INDEPENDENT EVALUATION OF THE PROJECT; THE FINDINGS OF THE STUDY COINCIDE WITH THIS PERCEPTION OF THE SOLANDA PROJECT.

THE MISSION IS NOW DEVELOPING A COMPREHENSIVE URBAN STRATEGY. THE FINDINGS OF THE SOLANDA EVALUATION ARE PART OF THE BACKGROUND SUPPORTING THE URBAN STRATEGY DEVELOPMENT EXERCISE. RHUDO/SA IS RESPONSIBLE FOR THIS ACTIVITY, WHICH WILL BE COMPLETED BY MID-1990.

US\$1,016,251.95 REMAIN IN THE SOLANDA PROJECT ESCROW ACCOUNT. THOSE FUNDS WILL BE DISEURSED AND THE ESCROW ACCOUNT CLOSED AS SOON AS THE GOE COMPLETES SEVERAL ACCOUNTING TRANSACTION ADJUSTMENTS WHICH ARE NOW IN PROCESS TO ENSURE THAT THE ECUADORIAN HOUSING BANK RECEIVES THE FULL AMOUNT IN LOCAL CURRENCY OF US\$ DISBURSEMENTS. RHUDO/SA IS OVERSEEING THIS CLOSE-OUT, WHICH WILL BE COMPLETED BY THE END OF CY 1989.

RHUDO/SA

06/90

RHUDO/SA

12/89

(Attach extra sheet if necessary)

**F. DATE OF MISSION OR AID/W OFFICE REVIEW OF EVALUATION:** mo    day    yr   

**G. APPROVALS OF EVALUATION SUMMARY AND ACTION DECISIONS:**

Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Signature Typed Name	Signature Typed Name	Signature Typed Name	Signature Typed Name
Renán Parrea	Dr. Patricio Cevallos	Sandra Eguéz	Michael Deal
Date: <u>20/11/89</u>	Date: <u>2-10-90</u>	Date: <u>11/22/89</u>	Date: <u>7-20-90</u>

Clearances: PPD: P. Maldonado PM 2-10-90

2

# A.I.D. EVALUATION SUMMARY PART I

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Name of officer responsible for Action

RHUDO/SA

RHUDO/SA

(Attach extra sheet if necessary)

Date Action to be Completed

06/90

12/89

**F. DATE OF MISSION OR AID/W OFFICE REVIEW OF EVALUATION:** mo \_\_\_ day \_\_\_ yr \_\_\_

**G. APPROVALS OF EVALUATION SUMMARY AND ACTION DECISIONS:**

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Signature	<i>[Signature]</i>	Dr. Patricio Cevallos	<i>[Signature]</i>	Frank Almaguer
Typed Name	Renán Herrera		Sandra Eguez	
Date:	10/1/89	Date:	11/22/89	Date:

Clearances: PPD: P. Maldonado \_\_\_\_\_

D/DTR: SESmith \_\_\_\_\_

## H. EVALUATION ABSTRACT (do not exceed the space provided)

THE PROJECT HAS HELPED THE GOVERNMENT OF ECUADOR EXPLORE INNOVATIVE APPROACHES TO DEVELOPING LOW-COST HOUSING FOR URBAN FAMILIES. IT HAS ALSO IMPROVED COORDINATION BETWEEN THE MUNICIPALITY OF QUITO, THE PRIVATE FUNDACION MARIANA DE JESUS, AND THE ECUADORIAN HOUSING BANK/NATIONAL HOUSING BOARD.

THIS IS A FINAL EVALUATION OF THE SOLANDA PROJECT. IT EXAMINES THE PROJECT AGAINST ITS PLANNED OBJECTIVES AND ALSO COMPARES IT WITH A NON-OFFICIAL SETTLEMENT IN QUITO. THE MAIN FINDINGS OF THE EVALUATION ARE:

- THE PROJECT WAS EFFECTIVE IN CHANGING GOE ATTITUDES TOWARD THE CONCEPT OF PROGRESSIVE HOUSING.
- THE PROJECT DEMONSTRATED THE VIABILITY OF USING LOWER MUNICIPAL INFRASTRUCTURE STANDARDS TO REDUCE INITIAL COSTS.
- SOLANDA PERMITTED THE GOE TO INTRODUCE INNOVATIVE FINANCIAL MECHANISMS TO INCREASE AFFORDABILITY TO A BROADER RANGE OF LOW-INCOME FAMILIES.
- HOME IMPROVEMENT LOANS TO SUPPORT HOUSING UNIT DEVELOPMENT AND CONSOLIDATION BY INDIVIDUAL FAMILIES WERE PIONEERED IN THIS PROJECT.

## "LESSONS" NOTED BY EVALUATORS:

- NEED FOR INTER-INSTITUTIONAL COORDINATION AMONG LARGE NUMBER OF ORGANIZATIONS CAUSED NEEDLESS PROJECT DELAYS.
- AN IMPROVED APPRECIATION OF FAMILIES' OWN ABILITIES TO DESIGN AND CONSTRUCT THEIR OWN HOUSES COULD HAVE ACCELERATED THE PROCESS AND SAVED WASTE WHEN ORIGINAL UNITS WERE MODIFIED AFTER FAMILIES MOVED IN.

## I. EVALUATION COSTS

## 1. Evaluation Team

Name	Affiliation	Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (US\$)	Source of Funds
D. Vetter	PADCO	OTR-1002-C-00-5189-00	\$30,000	Mission PD&S
J. Bordenave	PADCO			
A. Jarrin	PADCO			
Local Interviewers	PADCO			
Data Analyst	PADCO			
Demographer	PADCO			

2. Mission/Office Professional  
State Person-Days (estimate) 30

3. Borrower/Grantee Professional  
State Person-Days (estimate) 35

# A.I.D. EVALUATION SUMMARY PART II

## J. SUMMARY OF EVALUATION FINDINGS, CONCLUSIONS AND RECOMMENDATIONS (Try not to exceed the 2 pages provided)

Address the following items:

- Purpose of activity(ies) evaluated
- Purpose of evaluation and Methodology used
- Findings and conclusions (relate to questions)
- Principal recommendations
- Lessons learned

Mission or Office: USAID/ECUADOR

Date this summary prepared: II-20-90

Title and Date of Full Evaluation Report: \_\_\_\_\_

### "THE SOLANDA PROJECT EVALUATION AND LUCHA DE LOS POBRES: A COMPARISON OF FORMAL AND INFORMAL COMMUNITY DEVELOPMENT"

#### 1. PURPOSE OF ACTIVITY

THE ORIGINAL PURPOSE OF THE ACTIVITIES EVALUATED WAS "TO IMPLEMENT A MODEL PROJECT THAT CAN CONTRIBUTE TO ESTABLISHING AN INTEGRATED URBAN DEVELOPMENT SYSTEM TO SERVE ECUADOR'S URBAN POOR."

#### 2. PURPOSE OF EVALUATION AND METHODOLOGY

THE PURPOSE OF THE EVALUATION IS TO ASSESS THE SUCCESS OF THE SOLANDA PROJECT IN MEETING ITS ORIGINAL OBJECTIVES AND TO ESTABLISH A BASIS OF COMPARISON FOR MEASUREMENT OF SUCCESS WITH AN INFORMAL SETTLEMENT CALLED "LUCHA DE LOS POBRES" WHICH WAS DEVELOPED DURING THE SAME PERIOD. THE METHODOLOGY USED INVOLVED THE FOLLOWING ELEMENTS:

- A) AN OVERALL ASSESSMENT OF THE ACHIEVEMENTS OF SOLANDA.
- B) A SAMPLE SURVEY OF 350 UNITS AND FIELD OBSERVATIONS IN BOTH SOLANDA AND LUCHA DE LOS POBRES.
- C) A "WINDSHIELD" SURVEY OF HOUSING IMPROVEMENTS IN SOLANDA (170 UNITS)
- D) INTERVIEWS WITH OFFICIALS INVOLVED IN THE PLANNING AND DEVELOPMENT OF SOLANDA AND LUCHA DE LOS POBRES.
- E) A REVIEW OF LITERATURE ON URBAN PROBLEMS IN ECUADOR AND INTERVIEWS IN BOTH SOLANDA AND LUCHA DE LOS POBRES IN ORDER TO DO HISTORIES OF THE DEVELOPMENT PROCESS IN THESE TWO SETTLEMENTS WITH EMPHASIS ON THE ROLE OF COMMUNITY PARTICIPATION.

#### FINDINGS AND CONCLUSIONS

1. THE SOLANDA PROJECT WAS EFFECTIVE IN CHANGING JNV/BEV POLICIES AND AS A RESULT A LARGE MAJORITY OF UNITS UNDER PRODUCTION ARE NOW DESTINED FOR BELOW-MEDIAN INCOME FAMILIES.
2. LOWER STANDARDS FOR UNIT DESIGN AND INFRASTRUCTURE WERE ACCEPTED BY THE MUNICIPALITY OF QUITO AND REDUCED HOUSING COSTS WERE ACHIEVED. AS A RESULT, A TOTAL OF 5,746 UNITS WERE CONSTRUCTED EXCEEDING THE ORIGINAL TARGET BY 28%. ALL OF THE UNITS IN SOLANDA HAVE BASIC WATER AND SEWER SERVICES AND SANITARY FIXTURES.

3. A SURVEY OF TWO SECTORS INDICATED THAT 62% OF THE FAMILIES HAVE ALREADY BEGUN OR COMPLETED EXPANSION OF THEIR UNITS AND NEARLY 70% OF THE FAMILIES WHO HAVE RECEIVED THEIR UNITS, HAVE RECEIVED HOME IMPROVEMENT LOANS FROM THE JNV/BEV.
4. JNV/BEV ADOPTED A GRADUATED PAYMENT PLAN IN ORDER TO REACH LOWER INCOME FAMILIES; INTRODUCED SIGNATURE LOANS FOR HOME IMPROVEMENTS; BROUGHT INTEREST RATES CLOSER TO MARKET RATES, AND ALLOWED FOR APPLICATION PROCESSING AND PRELIMINARY UNDERWRITING BY NON-PROFIT ORGANIZATIONS.
5. JNV/ BEV INSTITUTED A COMPUTARIZED SELECTION PROCESS FOR EXPEDITING THE BENEFICIARY SELECTION PROCESS.
6. ACCORDING TO LOAN APPLICATIONS UPDATED BY BEV, FAMILIES WITH INCOME BETWEEN THE 5TH PERCENTILE AND THE 47TH PERCENTILE WERE SERVED BY THE PROGRAM. DOCUMENTATION WAS PROVIDED IN EVIDENCE OF THE FACT THAT NEARLY ALL BORROWERS WERE BELOW MEDIAN INCOME. THOSE OVER THE URBAN MEDIAN WERE FINANCED DIRECTLY BY BEV, NOT WITH 518-HG-005 RESOURCES.
7. ONLY A SMALL PORTION OF THE COMMUNITY INFRASTRUCTURE HAS BEEN CONSTRUCTED TO DATE AND SOME ACTIVITIES SUCH AS JOB CREATION AND TRAINING, AND SMALL INDUSTRY CREDIT WERE PLANNED BUT NEVER CARRIED OUT.

#### 4. PRINCIPAL RECOMMENDATIONS

1. A METHOD OF INDEXING PAYMENTS IS NEEDED WHICH WILL HAVE ENOUGH FLEXIBILITY TO COPE WITH FLUCTUATIONS IN REAL INCOME, WHILE AT THE SAME TIME MAINTAINING THE REAL VALUE OF THE MORTGAGE PRINCIPAL.
2. PROJECTS DEVELOPED BASED ON THE COOPERATIVE APPROACH HAVE SHOWN TO BE EFFECTIVE IN MOBILIZING INITIAL CAPITAL AND WOULD GREATLY BENEFIT FROM ACCESS TO LONG TERM CREDIT.
3. INNOVATIVE FINANCIAL DELIVERY MECHANISMS INTRODUCED IN THE SOLANDA PROGRAM AS WELL AS THE INSTITUTIONAL DELIVERY SYSTEM SHOULD BE ADAPTED FOR USE IN SITE AND SERVICES PROGRAMS.
4. THE COMPUTER ASSISTED ADJUDICATION PROCEDURE WHICH WAS DEVELOPED IN CONNECTION WITH THE SOLANDA PROJECT COULD BE EMPLOYED BY THE BEV IN MATCHING FAMILY NEEDS/PREFERENCES/PAYMENT CAPACITIES TO DIFFERENT LOT OPTIONS IN SITES-AND-SERVICES PROJECTS.
5. THE PROCESS OF REGISTERING LEGAL DOCUMENTS SHOULD BE REVISED TO ELIMINATE BOTTLENECKS.
6. ENCOURAGE THE PARTICIPATION OF THE COMMUNITY AND THE INTENDED BENEFICIARIES TO MAXIMIZE THEIR CONTRIBUTION TO FOCUS PROGRAM OBJECTIVES ON THE SOLUTION OF THE GREATEST NEEDS OF THE TARGET GROUPS AND AVOID MANY FUTURE EXPENDITURES.
7. THE USE OF ALTERNATIVE TECHNOLOGIES FOR BASIC SANITATION SHOULD BE ENCOURAGED.
8. DIALOGUE AMONG MUNICIPAL AND GOVERNMENTAL AUTHORITIES AS WELL AS THE PRIVATE SECTOR SHOULD BE ENCOURAGED REGARDING PROGRESSIVE HOUSING DEVELOPMENT AND ALTERNATIVE APPROACHES TO INFRASTRUCTURE DEVELOPMENT.

"THE SOLANDA PROJECT EVALUATION AND LUCHA DE LOS POBRES: A COMPARISON OF FORMAL AND INFORMAL COMMUNITY DEVELOPMENT"

L. COMMENTS BY MISSION, AID/W OFFICE AND BORROWER/GRANTEE

THIS EVALUATION MET THE SCOPE OF WORK PREPARED BY THE MISSION, AND HAS BEEN USEFUL NOT ONLY IN ASSESSING THE SOLANDA PROJECT BUT ALSO IN ORGANIZING INFORMATION RELEVANT TO FURTHER REFINEMENT AND DEVELOPMENT OF AID'S URBAN-FOCUSSED ACTIVITIES IN THE SHELTER SECTOR.

THE EVALUATORS WERE FAMILIAR WITH THE SECTOR AND WERE ABLE TO PERFORM USEFUL ANALYSIS OF THE PROJECT EXPERIENCE. SUFFICIENT TIME WAS AVAILABLE FOR NEEDED FIELD WORK, AND A GOOD COMBINATION OF OUTSIDE EXPERTS AND LOCAL CONSULTANTS WAS EMPLOYED.

: THE FINDINGS OF THE EVALUATION CORROBORATE ALTERNATELY-REACHED CONCLUSIONS ABOUT THE VALUE OF FOCUSING FUTURE MISSION ATTENTION ON SHELTER FINANCE, MUNICIPAL INFRASTRUCTURE MANAGEMENT, AND PLANNING SUITABLE TO MEET THE NEEDS OF LOW-INCOME FAMILIES. THE FINDINGS AND LESSONS LEARNED CONCUR GENERALLY WITH THOSE OF AID STAFF AND HOST COUNTRY OFFICIALS.

## 5. LESSONS LEARNED

- IN SPITE OF INTERNAL POLITICAL CONFLICTS WITHIN THE COOPERATIVE LUCHA DE LOS POBRES, IT SHOWED A HIGHER LEVEL OF ORGANIZATION AND IS PROBABLY SERVING A MUCH LOWER INCOME POPULATION THAN IS BEING SERVED AT SOLANDA. LUCHA ALSO HAS A MUCH HIGHER INCIDENCE OF SELF-HELP HOUSING, LARGER FAMILY SIZE, MORE RUDIMENTARY PREVIOUS HOUSING SITUATION, LESS EXPENSIVE CONSTRUCTION, AND FEWER IMPROVEMENTS. THE COMMUNITY DEVELOPMENT PROCESS AT LUCHA WAS VERY EFFECTIVE AND LUCHA WAS VERY SUCCESSFUL IN PRESSURING GOVERNMENT ENTITIES TO PROVIDE PHYSICAL AND SOCIAL INFRASTRUCTURE.
- SOLANDA WAS CONCEIVED AS AN INNOVATIVE PUBLICLY-SPONSORED HOUSING PROJECT. COMMUNITY PARTICIPATION WOULD OCCUR ONLY AFTER THE PROJECT WAS OCCUPIED. THIS RESULTED IN MANY FAMILIES NOT RECEIVING WHAT THEY WANTED. IN LUCHA, THE COOPERATIVE ORGANIZED THE ACQUISITION OF THE SITE, HELPED IN ESTABLISHING THE COMMUNITY, AND LOBBIED FOR SOCIAL AND PHYSICAL-INFRASTRUCTURE. THE COMMUNITY WAS FORMED FIRST.
- THE GUIDING PRINCIPLE SHOULD BE TO RESOLVE PROBLEMS AT THE LOWEST LEVEL WHICH FOR HOUSING WOULD NORMALLY BE AT THE COMMUNITY OR PROJECT LEVEL. IN THE CASE OF WATER AND OTHER SERVICES, IT MIGHT BE THE MUNICIPAL OR PROVINCIAL LEVEL.

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**THE  
SOLANDA PROJECT EVALUATION  
AND  
LUCHA DE LOS POBRES:  
A COMPARISON OF FORMAL  
AND INFORMAL  
COMMUNITY DEVELOPMENT**

Prepared for  
U.S.A.I.D./Ecuador and the Regional Housing and  
Urban Development Office (RHUDO/South America)  
Quito, Ecuador

February 1989



**OFFICE OF HOUSING  
AND URBAN PROGRAMS  
AGENCY FOR  
INTERNATIONAL DEVELOPMENT**

Prepared by  
**PADCO**  
**PLANNING AND DEVELOPMENT  
COLLABORATIVE INTERNATIONAL**

**The *Solarida Project* Evaluation and *Lucha de los Pobres*:  
A Comparison of Formal and Informal Community Development**

Prepared for  
U.S.A.I.D./Ecuador and the Regional Housing and Urban Development  
Office (RHUDO/South America)  
Quito, Ecuador

Prepared by:

PADCO, Inc.  
1012 N Street, N.W.  
Washington, D.C.

February, 1989

### **Note on Currency**

To facilitate comparison, all Sucres have been translated into values of May 1988, using the index cited in Table 1.A. The average exchange rate for the dollar for May 1988 was: US\$1 = S/471.

## Preface

The U.S.A.I.D. Mission in Ecuador contracted with PADCO, Inc. to evaluate the Housing Guaranty project known as Solanda (HG-005). After an initial visit by Lee Baker, a field team, consisting of David Vetter (Team Leader), Jaime Bordenave and Andrés Jarrín initiated this evaluation in Quito on May 23 through June 2, 1988. After meeting with Lindsay Elmendorf, Aivaro Saborío and Charles Van Fossen of the U.S.A.I.D. Mission in Ecuador and in accord with the terms of reference, the team defined a field work plan. Although all team members participated in most meetings and interviews, as well as in the general discussions of the project and the evaluation methodology, there was a clear division of responsibilities during this first visit. Bordenave concentrated on the elements of the Solanda evaluation, including project description, institutional arrangements and performance in achieving physical objectives. Vetter and Jarrín focused on the formulation of the research design for the sample survey, including the selection of the areas to be surveyed, development and testing of the survey instrument, sample selection and the plan for data analysis. Jarrín was, then, responsible for data collection and a preliminary analysis of the data, guided by a preliminary version of the final report prepared by Vetter. Vetter returned to Quito from July 2nd through the 10th to complete the analysis of the sample survey data with Jarrín, as well as to prepare a draft of the consolidated final report, including both the survey results and Bordenave's analysis. This draft was presented to U.S.A.I.D. for comments which were then incorporated into the final report by Jaime Bordenave and Lee Baker.

## Table of Contents

Executive Summary .....	7
<b>I. Introduction.....</b>	<b>23</b>
A. Statement of work .....	23
B. Methodology.....	23
1. An overview .....	23
2. Sample survey in Solanda and Lucha de los Pobres ....	23
<b>II. Socio-Economic Context of the Solanda Project.....</b>	<b>25</b>
A. Growth of population and households .....	25
B. Low and increasingly unstable urban incomes.....	26
<b>III. <i>The Solanda Integrated Shelter and Urban Development Project</i> .....</b>	<b>27</b>
A. Goals and Objectives .....	27
1. Participating institutions.....	28
2. Project elements .....	29
3. Financial inputs .....	30
4. Background description.....	30
B. Measurable targets .....	31
<b>IV. Performance in Achieving the Objectives of the <i>Solanda Project</i>.....</b>	<b>35</b>
A. Affordable housing for low-income families.....	36
1. Affect policies of the JNV/BEV to have it serve lower income target populations .....	36
2. Reduce housing costs by lower standards and progressive approaches.....	37
3. New finance mechanisms to serve lower income families in Ecuador .....	41
4. Develop institutional capacity to produce and service more housing units .....	41
5. Reaching the low-income target population .....	43
B. Reduced Infrastructure Standards .....	46

C.	Integrated approach to urban development.....	48
1.	Provision of community facilities .....	48
2.	Effective community participation and social programs.....	48
V.	<b>The Cooperative <i>Lucha de Los Pobres</i></b> .....	50
A	History of the project .....	50
1.	Invasion process and initial planning of the settlement.....	51
2.	Formal leaders .....	52
3.	Participating institutions.....	52
4.	Process of consolidating the cooperative.....	54
5.	Origins of the members of the cooperative .....	54
6.	Construction process.....	55
7.	Housing models.....	55
8.	Internal community organization.....	56
9.	Current situation of the cooperative .....	56
10.	Legal situation.....	56
VI.	<b>Comparison of the Urban Development Processes in <i>Solanda</i> and <i>Lucha</i></b> .....	59
A.	Housing production .....	59
B.	Current and previous housing and family conditions.....	61
1.	Family Size .....	63
2.	Distribution of household income .....	63
3.	Income of Head of Household .....	63
4.	Characteristics of Head of Household .....	63
5.	Rented Spaces.....	63
6.	Use of housing unit for other economic activities .....	65
7.	Community participation.....	65
8.	Relatives in the neighborhood.....	65
C.	Felt needs for infrastructure and major problems of the housing unit and the neighborhood.....	65

**VII. Conclusions and Recommendations ..... 71**

**Annex A: Detailed Tables**

**Annex B: The Survey Instruments**

**Annex C: The Histories of *Lucha de los Pobres* and *Solanda***

## Executive Summary

This report not only evaluates the *Solanda* project, but also attempts to understand the experience of *Solanda* in comparison with *Lucha de los Pobres*. Hopefully, the lessons learned from these two settlement experiences will contribute to formulating a more effective urban policy development for Ecuador. This policy should help resolve the housing and urban infrastructure problems of low-income families, without raising the public deficit.

The report consists of seven major parts. Part I reviews the statement of work and methodology of the team. Part II presents the socio-economic context of the *Solanda* and *Lucha de los Pobres* projects. Part III describes the *Solanda* project. In Part IV, the report analyzes the performance of the *Solanda* project in meeting its objectives. Part V describes the development of the housing cooperative, *Lucha de los Pobres*. A comparison of the urban development processes in these two communities is found in Part VI, and Part VII presents conclusions and recommendations. The body of the report has three annexes, with Annex A consisting of detailed Tables from the surveys of *Solanda* and *Lucha*. Annex B contains the two surveys used for *Solanda* and *Lucha*, and Annex C presents additional historical material on the two projects.

**Part I. Statement of Work and Methodology.** In order to carry out the evaluation of the *Solanda* project, the team used a number of activities. These consist of: an overall assessment of the achievements of *Solanda*; a sample household survey and field observation in *Solanda* and *Lucha de los Pobres*; interviews with officials involved in the planning and implementation of the projects; a review of key literature on urban problems in Ecuador; and in-depth interviews in both *Solanda* and *Lucha*.

The survey, substantially the same for both communities, was conducted with 350 families in *Solanda* and 350 in *Lucha*. This is a statistically representative sample and large enough to allow for analysis of sub-groups. Interview questions were reviewed by the Ecuador U.S.A.I.D. Mission prior to conducting the survey. The field work for the survey was coordinated by Andrés Jarrín, with assistance from Ernesto Pinto. The *Fundación Mariana de Jesus* and the *Banco Ecuatoriano de Vivienda* provided letters of introduction for the surveyors to facilitate the interviewing.

**Part II. Socio-Economic Context.** The urbanization rate in Ecuador is significant. In the period from 1974 to 1982, 471,000 new shelter units were constructed with seventy percent of them in urban areas. The *Instituto Nacional de Estadística y Censos* expects the urban population in Ecuador

to grow from 4.2 million in 1982 to 7.2 million in 1995, an annual increase of 4.23%.

In 1985, over 68,000 units were provided by all sources, public and private. Seventy percent of these were built by the private informal sector. As a result, most of this housing lacks basic urban services, such as water, sewer, road access for safety and health vehicles, and basic transportation. The lack of public services has resulted in high rates of infant mortality and sickness. In 1981, the legislature approved *Reglamento 140* which committed the government to legalize and regularize informal settlements created prior to that date.

*Lucha de los Pobres* is an informal settlement that was formed by invasion of the Hacienda Santa Ana in 1980. The *Solanda* project, on the other hand, is a government sponsored project that came about in an attempt to affect policies, procedures and institutional capability to respond to the rapid urbanization of Ecuadorian cities.

Urban development problems are exacerbated by low and increasingly unstable urban incomes, and the high inflation and overall economic conditions of the country. For the period from 1980 to 1988, the inflation reached rates of up to 48% per year. From January to May of 1988, the rate of inflation was 22.7%, reaching an annual rate of over 73% in the month of May.

**Part III. Description of the Solanda Project.** The Solanda Integrated Shelter and Urban Development Project is the third Housing Guaranty project carried out in Ecuador. It was authorized on February 2nd, 1980 with the Ecuadorian Housing Bank borrowing \$20,000,000. As conceived, the project would produce: 4,500 basic shelter solutions; community facilities (schools, clinics, markets), infrastructure (streets, sewerage, water and electricity); comprehensive development program to include neighborhood organization, social assistance, employment generation and construction assistance; and, technical assistance to aide the development of policies and institutions designed to address the needs of low-income shelter sector of Ecuador.

The project was designed to require the participation and cooperation of a number of agencies.

The project plan called for the Municipality of Quito to supply water and to schedule channeling of the Rio Grande for storm and waste water (US\$11.5 million). The Ecuadorian Housing Bank was committed to set appropriate cost recovery policies so that the institution would not be decapitalized; this Bank, or other implementing agencies, was committed to obtain formal commitments from the appropriate authorities to equip and staff the community facilities, public transport, and other municipal services in accordance with its development schedule (US\$7.9 million). The

beneficiaries were to have incomes between the bottom 10th and 45th percentiles of the metro area's income distribution, and were to contribute savings toward the housing (US\$2.18 million). The Foundation *Mariana de Jesús* was responsible for donating the land for the building site, and for developing the community infrastructure and social programs (US\$22.8 million).

The Agency for International Development was committed to provide funds for the project development (US\$20 million), and technical assistance for a three year period to assist in the implementation of the project and in the development of the appropriate policies and procedures (Grant \$430,000).

This project was intended to serve as a model for a new Ecuadorian system for implementing urban development projects which combines low-cost housing, physical and social infrastructure, employment and training activities, and community organization. Subsequent projects would focus on secondary cities, with a possible third project in Guayaquil.

All housing guaranty funds for Ecuador were to be tied together by one central objective:

*the establishment and operation of a new Ecuadorian system for planning, coordinating, financing, and implementing comprehensive programs that serve the needs of the Ecuadorian urban poor.*

The *Solanda* project was planned to result in a number of innovations for Ecuador:

- serve low-income families with affordable shelter solutions without government subsidy for construction or infrastructure;
- minimum infrastructure standards, progressive housing solutions;
- the use of an integrated approach, combining low-cost housing, physical and social infrastructure, employment training, and community organizations;
- acceptance of the financing of social interest projects at market terms;
- recognition of the need for integration of urban development via national planning, and a commitment to put such a process to work; and
- a new commitment to address the problems of the urban poor.

Since 1968, the project site had been considered as a possible location for a major housing development serving low-income families. In 1973, the Foundation began working on project design and financing. In 1975, 1,800

families applied for participation. The following year, the Foundation joined forces with the JNV/BEV regarding this project, and in 1979, A.I.D. began exploring the possibility of funding this project as a means of achieving larger policy goals. Authorization was received in 1980.

The project documents translate the project's very broad scope and ambitious objectives into a long list of measurable targets, including the following:

- **Serve low-income families with affordable units.** Beneficiaries are to be between the 10th and 45th percentiles. The project is to build 4,500 units, ranging from 20 M2 to 78 m2 on lots from 60 m2 to 122 m2.
- **Minimum Infrastructure Standards and progressive unit designs.** This includes all basic services, along with cobblestone streets; paved and unpaved sidewalks; minimal parking; cement water pipes instead of steel; wooden electric poles; and less rigid standards for large sewage pipes.
- **Integrated Approach.** This includes a comprehensive community development program, with neighborhood organization, social assistance, construction assistance and the support or creation of small businesses and community-owned enterprises. For every 1,100 families, the project calls for one of the following: a primary school; recreational facilities; kindergarten; day-care center; commercial center; and space for various cooperative or community endeavors.

Larger installations, such as the following, were to be developed over time in a wide central zone of land dedicated to community facilities: fully staffed health clinic; boys' high school; cultural center; sports areas; administrative center; larger community-owned enterprises.

Various ministries and agencies would be responsible for: building a girls' high school with capacity for 4,000 students; focusing on broader needs of social services, employment training, and complementary infrastructure; the emergence of public and private sector developers who can design and implement similar projects; social infrastructure, such as schools, health centers, markets, day-care centers, community centers, recreation areas, public service outlets (police, post office, municipality), commercial outlets, a cultural and community center, and offices for co-op organization; and job creation and training.

- **Acceptance of financing of social interest housing at market terms.** This is achieved by using: variable lending techniques; utility tariff structures; creation of mechanisms to assure funding of the social infrastructure, and credits for job creation.
- **Recognition of the need for integration of urban development through national planning, and a commitment to put such a process to work.**

This includes technical assistance at the macro level and the project level. At the national level, results should include: set of urban development and low-cost shelter design standards; shelter finance policies to reflect the need for flexibility in serving low-income families; guidelines for setting user charges for public infrastructure. At the project level, it should result in: comprehensive planning process between public and private sector institutions; formulation and application of an evaluation system; model program of community development and organization with design and use of appropriate facilities and income generation; program for assisting self-help housing construction and home improvement.

**Part IV. Performance of Solanda.** The *Solanda* Project was most successful in meeting its broader policy objectives, and less successful in achieving its objectives at the project level.

*Physical Status.* As of May, 1988, all planned shelter units are complete, with 28% more units being constructed than were planned. The project is served with water, sewer, electricity, access roads, sidewalks, community space, transportation and some education, religious and social services.

Applicants have been processed for all units, with loans approved for 1,046 families. Of these, 692 families have received home improvement loans from the BEV. An additional 1,698 families are nearing completion of the legal processes to permit occupancy. Thus, 44% of the units are close to being in the possession of their owners. Two thirds of the owners in Sector 1, and half in Sector 3 have made improvements.

Very few community facilities have been completed, and negligible social programs started. This is due to organizational and financial problems of the Foundation *Mariana de Jesús*.

Eighty percent of the housing guaranty funds have been disbursed, and still additional funds may be drawn down.

*Achievement of Objectives.* Regarding the three main objectives of the project, the project has met with mixed success.

1) **Affordable Housing.** At least partially as a result of this project, the JNV/BEV is now developing numerous projects serving the below-median income target group. Prior to this project, they had developed only one such project. Currently, 73.6% of their units in production are for low-income families or individuals.



*"As a demonstration program, the Solanda project provided ample experience for the principal institutions involved in the design, finance and delivery of large-scale projects to serve the urban low income population."*

The project has succeeded in reducing costs by lowering housing standards and using progressive housing approaches. Over the course of the project development, standards for housing units were continuously reduced, both in terms of lot size, unit size, and level of completion. In Sector 1, 49% of the units were built on the smallest lots; in Sector 2, 56% were on the smallest lots.

For the most part, the units are incomplete upon delivery and can be expanded to the back of the lot and upwards. Those units without the ability to be expanded met with negative reaction. In the occupied sections, 62% of the families have begun or completed expansion of their units. The piso-techo units, however, were designed to discourage certain types of expansion. Thus, to expand as they wish, many families are knocking down part of the superstructure to accommodate the second floor. For example, in Sector 3, 37.5% of the units with expansion entailed partial or complete demolition to accommodate a different design. Due to a lack of control on the build-out, this results in a higher cost of expansion. The tri-plex design and bridge units also met with resistance, although a solution has been worked out for the tri-plex units.

A windshield survey of Sectors 1 and 3, which have the most built-out units, shows that 67% of the units do not comply with BEV and municipal set-back or height requirements. Nearly seventy percent of the units where families have received their occupancy permit have taken out home improvement loans from the JNV/BEV. Total borrowing for the initial unit and lot, plus the improvement, may not exceed S/. 1,088,000.

Although some reductions in building design and site standards were allowed for Solanda, interviews with some representatives of the Municipality have not indicated a willingness to apply these standards to other communities. If anything, the *Solanda* experience may have initially hardened the City's position. According to U.S.A.I.D. personnel, there have been significant changes in attitude since this evaluation was originally conducted, indicating a much greater receptivity.

The JNV/BEV accepted and adopted a graduated payment plan, with initial negative amortization, in order to reach still lower income families. Governmental policies subsequently eliminated the requirement of down payments in the BEV projects. Interest rate ranged from 18 to 19% and terms, from 15 to 20 years.

BEV's home improvement loan program represents an effective innovation that could be applied in other types of projects, such as up-grading or sites and services projects.

There are significant differences of opinion regarding the household income of the beneficiaries served by the project. According to the loan applications, all of the families financed by A.I.D. guaranteed loans were below median income. Foundation staff and some others as well expressed

concern that there may have been some under-reporting of income, pointing to the rapidity of build-out and quality of much of the construction as evidence that a larger group of above-median income families are being served than indicated in the application documents. Verification of incomes was beyond the scope of this evaluation. There may be sufficient support for the argument that at least part of the build-out is due to access to credit. Also, the JNV/BEV discontinued the downpayment requirement, which enhanced the beneficiaries ability to borrow improvement funds.

Regarding institutional development, the JNV/BEV adopted a number of procedures to speed up the project implementation, largely in response to inputs from U.S.A.I.D. advisors. Most notably, a computerized selection process for expediting and making the beneficiary selection process more objective was adopted. This system was used for the first two sections of units allocated to the beneficiary group, but only partially used in the latter two phases.

The survey shows that despite these innovations, the elapsed time from submission of the application for the unit in *Solanda* was quite long:

Application to adjudication	3.1 years
Adjudication to authorization for occupancy	6.3 months
Authorization for occupancy to occupancy	6.1 months
Total from adjudication to occupancy	12.4 months
Total from application to occupancy	4.1 years

2. Reduced Infrastructure Standards. All basic infrastructure has been supplied to *Solanda*: on-site and off-site water, electricity, storm and sanitary sewers, access roads. Only some of the reduction in standards for *Solanda* were implemented. Reductions include: allowance of cobblestone side streets (which were permitted but not implemented); reduced parking requirements; small lot sizes; and reduced community facilities. Several objectives were not achieved in this area, including: wooden electric poles instead of pre-cast concrete poles, cement water pipes instead of steel, less rigid standards for large sewage pipes.

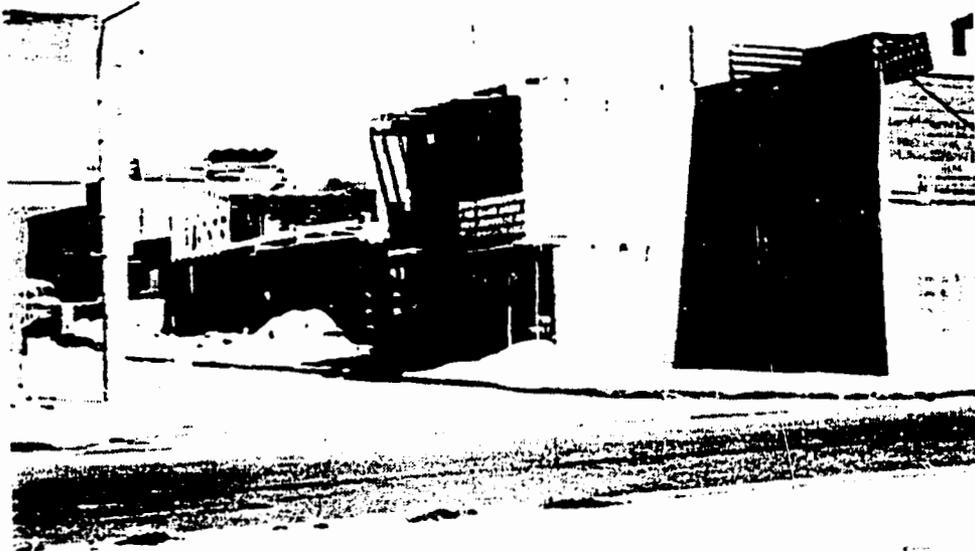
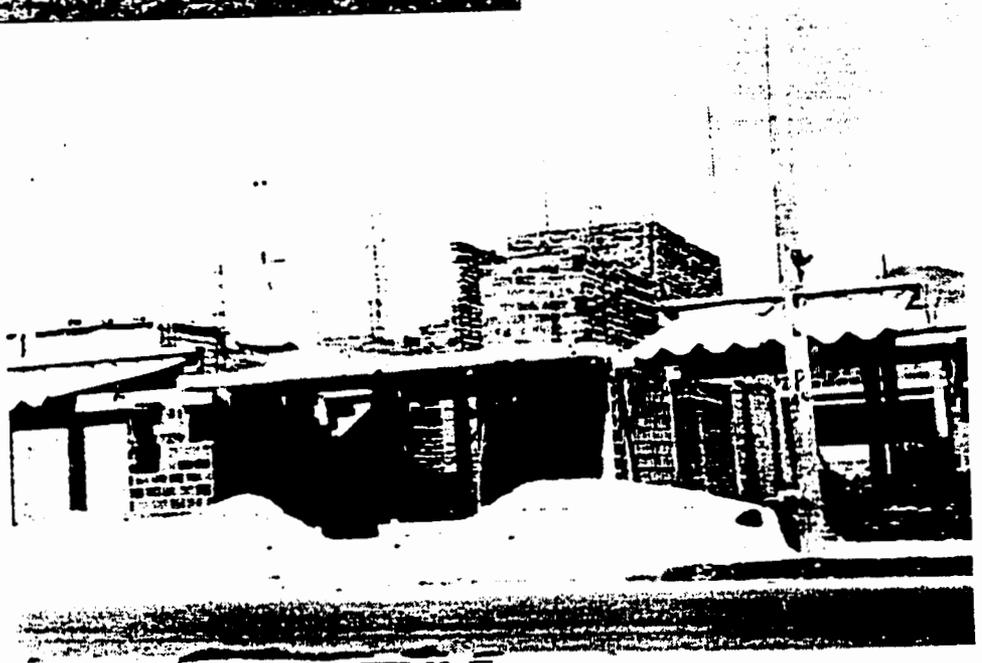
3. Integrated Approach to Urban Development. The construction and staffing of community facilities was a central and integral part of the project design. Unfortunately, only a very small portion of this community infrastructure has been constructed to date, including a community center, a school, and a small health clinic. Currently, there are no funds for additional facilities. Planned facilities were to include primary schools, recreational facilities, kindergartens, day-care centers, commercial centers and community centers for each 1,100 families. Project-wide facilities were to include a fully staffed health center, a boy's high school, a cultural center, sports areas, an administrative center and community-owned enterprises. Staff of the Foundation (ALTUR) now expect the residents to apply pressure on the governmental agencies to have them

supply the needed facilities, and requisite staffing. This pressure is being felt by the city, and the city's position appears to be that the problem belongs to the BEV and the Foundation. The Foundation is making efforts to organize the residents and provide for some of their social and community needs, but to date (June, 1988) has not been very successful.

Community development activities that were planned, but never carried out, include: job creation and training; small industry credit and technical assistance. A number of organizations have developed in the community, but the household survey showed that participation is minimal.

The lack of community development activities is one of the greatest disappointments in the *Solanda* Project, and one in which it could learn most from *Lucha de los Pobres*. In addition to the problems encountered by the Foundation, which bore primary responsibility for this project component, the protracted implementation period also caused a lack of phasing of A.I.D. technical assistance inputs in this area. Hence, much of the technical assistance that was targeted to support this component occurred too early—before the units were occupied and families were ready to participate.

Nevertheless, the *Solanda* project was indeed successful in supporting a delivery model that paired the JNV/BEV with a non-profit foundation. The relationship that developed between a private voluntary organization and the government was a positive one, as judged by representatives of both organizations. The Foundation, in addition to donating the land for the site, performed the home visits, screened applicants, maintained public relations with the applicants over the protracted development period, and constructed and staffed some of the community facilities. Although this approach was viewed as very constructive, the model has not been repeated by the BEV, nor does it appear to be planned for any imminent projects.



*"The Solanda project was successful in achieving the majority of its larger policy objectives, in spite of numerous problems, and several areas of significant shortcomings."*

**Part V. *Lucha de los Pobres*.** The housing co-op *Lucha de los Pobres* resulted from an invasion of the Hacienda Santa Ana, near the *Solanda* site. Organizing began in 1982 with 100 initial members. After unsuccessfully attempting to negotiate for the land, the co-op began recruiting members. In the first six months of 1983 the co-op gained 500 members. The invasion occurred on August 21, 1983. Over 1,500 people participated in the initial invasion, with the number growing to over 3,000. Requirements for membership included paying a downpayment, owning no other real estate, and regular savings deposits.

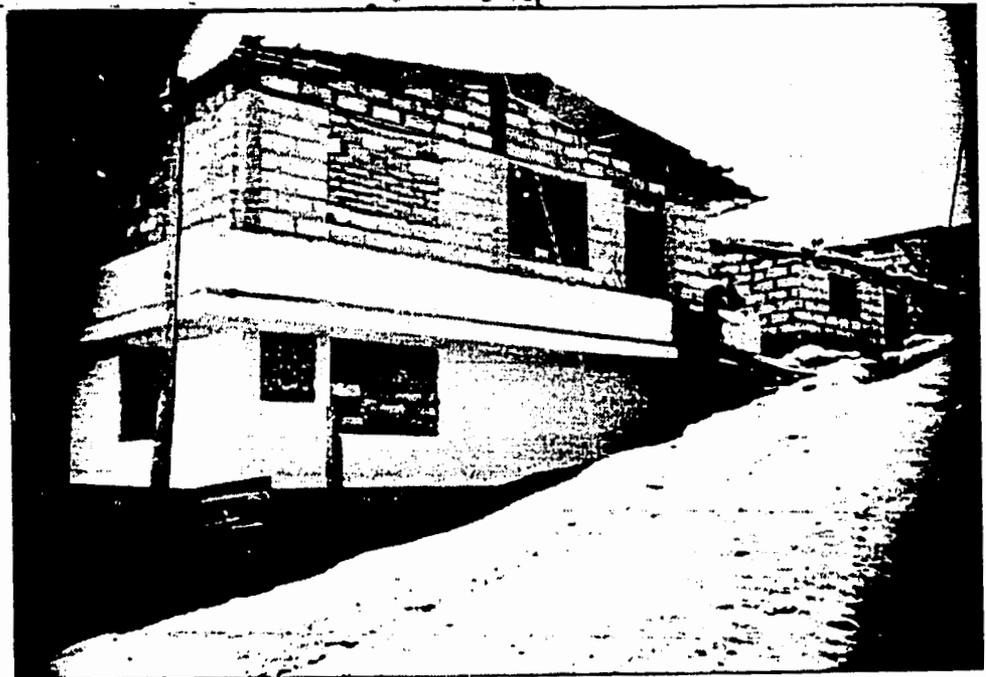
The co-op, in 1984, began negotiating again with the owner of the Hacienda and eventually entered into a contract of sale. Nearly 2,500 units have been adjudicated.

The co-op has had internal conflicts among several politically oriented sub-groups. After the 1987 October elections there has not been a plurality of authority on the Board, leading to the co-op being placed in receivership by the National Office for Cooperatives within the Ministry of Social Welfare. No audit has been completed by any of the five receivers appointed since that time.

The co-op received support from various ministries and agencies, including the Ministries of Social Welfare, Education and Culture, and Public Health, the Municipality of Quito, the power company, DINADER and the Community Youth Development organization. In all, the co-op has received the following: fifteen day care centers; one communication workshop; one library (120 volumes); one tanker truck for water; five playgrounds; a school for 450 students; a health center, with doctor and nurse services; nutrition training; installation of definitive streets, which are being paved with stones, electric services, and a sports area.

Over 82% of the families have built simple one-room homes (*mediaguas*), while 16% have built more substantial two-room homes, and 2% have built complete homes.

The most severe problems in the community include: insufficient supply of potable water; inadequate waste water and solid waste collection systems, and transportation.



*"International experience suggests the importance of autonomy in building, of getting the government 'off of the backs' of the poor, of letting them build their own settlements."*

**Part VI. Comparison of the *Solanda* and *Lucha de los Pobres* Projects.**  
Achievements of the respective projects include the following:

***Solanda:***

- Systematic site plan for over 5,000 units
- Completed infrastructure of paved roads, water system, sewer system, electricity, street lighting [telephones not available at time of evaluation]
- Construction of over 5,700 progressive design housing units
- Underwriting and approval of home improvement loans for 70% of the occupied units
- Legal titles for all units
- As many as 80% of the units serving below-median income families
- Twenty percent of the families in Solanda using their homes for additional productive activity
- Minimal community organization and community facilities

***Lucha:***

- Systematic site plan for 2,500 units
- Streets, electricity, telephones
- Affordable construction of over 2,000 housing units
- Home improvement loans for over 300 families (15% of occupied units)
- Legalization of tenure
- Nearly all or all units serving very low income families
- Ten percent of units being used for additional productive activity
- Development of active community organization
- Wide variety of community services, including school and day care, nutrition program, sports facilities, playgrounds, health center

Each community has its own distinct problems and opportunities as well:

***Solanda:***

- Need for community infrastructure, in terms of facilities, programs and organizations
- Controls on illegal and dangerous construction patterns
- More efficient processes for development, construction, adjudication and occupancy permits

***Lucha:***

- Better access to credit for improvements
- Infrastructure, especially water and waste water systems, solid waste collection and transportation
- Correction of the co-op's internal struggles



*'Tucha de los Pobres was ... for families of low incomes, who lacked the possibility of access to shelter through conventional means. It would be a model of affordable housing, with common areas, sport complex, food supplies.'*

**VII. Conclusions and Recommendations.** Several conclusions can be drawn regarding the development of these two projects. These observations suggest directions for future projects and for sectorial approaches to urban and shelter problems.

The analysis of *Lucha de Los Pobres* demonstrates how effectively low-income communities can organize themselves to efficiently produce low-cost housing in a very short period of time, as well as to pressure institutions to provide them with the necessary physical and social infrastructure. The idea, then, would be to try to more closely replicate this kind of settlement through a sites and services approach, as well as up-grading projects.

*Sites and Services and Upgrading.* A greater emphasis on sites and services or upgrading in future projects would help solve many of the problems encountered in the *Solanda* project, such as partial or complete demolition, high costs of units and infrastructure and incompleteness of the proposed integrated approach. Institutional innovations developed in *Solanda*, such as the joint venture approach with a non-profit corporation, could be applied in these projects.

An essential difference between *Solanda* and *Lucha de Los Pobres* is the role of the community in the development process. In *Lucha*, the cooperative organized the invasion of the site, helped in establishing the community and, then, "lobbied" for social and physical infrastructure. The integration and planning were "grass roots". *The community was formed first.*

*Solanda* was conceived as an innovative publicly sponsored housing project. It was planned and executed by a private foundation and public authorities *for the poor*, but not *by them* until they moved onto the site. Although community participation was planned, it would occur only after the project was occupied. The housing options were developed by architects and shown to the prospective buyers, along with suggestions for how to expand. The buildings were built—and then allocated. This meant that many families did not receive what they wanted, leading some to demolish their units totally or partially.

In *Solanda*, integrated action by public authorities was to provide the needed public services, but they often did not succeed in so doing in the case of social services. The Foundation originally responsible for providing most of the public services is now organizing the community to pressure the Municipality, much as in *Lucha*. This kind of community activity can be seen as a kind of integration or planning process *from below*.

But in order to function, the government entities and other institutions must be capable of responding to these pressures from the community. This requires a broader urban sector strategy to strengthen the capacity of

urban institutions to respond to the needs of the community as a whole, especially the low-income segment.

This would, then, imply a kind of *bottom up* and *top down* strategy for dealing with urban problems. Such a strategy would, on one hand, improve the housing programs at the project level, encouraging greater community participation. On the other hand, it would increase the capacity of urban institutions to respond to needs of the populations in a more equitable and efficient manner. The guiding principle is to resolve problems at the lowest level. For housing, this would normally be at the community or project level, but for other services it might be the municipal or state levels, such as in the case of delivery of water.

One result of local control exemplified by the *Lucha* project is the insistence on basic planning and design standards. The lack of easy access to credit and the lower incomes may have also contributed to this more rational build-out process.

*Financial Mechanisms.* The *Solanda* project included a number of financial delivery mechanisms that were new to Ecuador and could be easily adapted for future programs and developments. They include: graduated payment mortgages; signature loans for home improvements; interest rates closer to market; application processing and preliminary underwriting by non-profit organizations.

## **I Introduction**

### *Statement of Work*

The main objective of this evaluation is to assess the success of the Solanda project in meeting its original objectives. The evaluation also analyzes the development of Lucha de los Pobres, an informal settlement that was formed nearby with approximately the same starting date. Lucha provides a point of comparison between formal and informal development. This evaluation looks beyond the Solanda and Lucha developments themselves to also provide ideas on how A.I.D. can best help Ecuador's public and private sectors respond to the housing and urban infrastructure needs created by rapid urbanization.

### *Methodology*

**An Overview:** The methodology employed involved several elements which were ultimately analyzed and incorporated into this report. They include:

- a) An overall assessment of the achievements of Solanda;
- b) A sample survey of 350 units and field observation in both Solanda and Lucha de los Pobres;
- c) A "windshield" survey of housing improvements in Solanda (170 units);
- d) Interviews with officials involved in the planning and implementation of Solanda and Lucha de Los Pobres;
- e) A review of literature on urban problems in Ecuador; and,
- f) In-depth interviews in both Solanda and Lucha de Los Pobres in order to do histories of the development process in these two settlements with emphasis on the role of community participation.

**The Sample Resident Survey:** To better understand the development process in the two settlements, its impact on the welfare of the families and their contributions to the community development process, the team designed and conducted a survey of 350 families in Solanda and 350 families in Lucha. The sample is statistically representative and large enough to permit analysis of sub-groups.

### *Selection of the areas to be surveyed*

The universe of the sample in Solanda includes the occupied units in Sector 1 and the occupied *piso y techo* units in Sector 3. Sector 1 was selected because it is the only one with a high rate of occupation (over 80%), and Sector 3, because it was the second most complete Sector and includes the introduction of progressive *piso y techo* units, which were not used in Sector 1. [Sectors 2 and 4 were virtually unoccupied at the time of this evaluation.] Lucha de los Pobres was selected for comparison because the two

settlements were initiated at approximately the same time (1980); are of similar size (Solanda was originally designed for 4,500 resident families, and Lucha de los Pobres for about 3,000 families), and are located within 1/4 mile of one another.

### *Definition of the survey instrument*

Questionnaires were developed for both Solanda and Lucha de los Pobres. Both instruments were pre-tested to eliminate questions producing unreliable results. See Annex B for copies of both questionnaires. Both questionnaires have specific questions for each of the settlements, as well as common ones. The common questions permit the comparison of the two settlements, while the specific ones permit analysis of the unique development processes in each settlement.

### *Sampling methodology*

For Solanda, a random sample of 30 blocks was drawn from a list of all 85 blocks in Sector 1, and 5 blocks from a list of all blocks in Sector 3 with *piso y techo* units. A systematic sample of 10 occupied units was then taken in each block for a total sample size of 350 units.

A similar sampling strategy was used in Lucha de los Pobres, but with some adjustments for the less systematic pattern of development. One of these was to first subdivide the settlement into six areas of approximately equal size as "proxies" for the blocks. The sample was then selected systematically within each of these areas for a total of 350 units.

### *Organization and Control of Field Work*

The field work was coordinated by Andres Jarrín with assistance from Ernesto Pinto, a statistician with long experience in sample surveys. In both Solanda and Lucha de Los Pobres, Pinto supervised an experienced team of interviewers. In the event that an eligible informant (husband, wife or adult child) was not at home, the interviewers revisited the house three times before substitution by another systematically selected household. Interviews were also done on Saturdays and Sundays, as well as during the evenings to assure that households with all members in the labor force or at school had an equal probability of being selected.

To increase the acceptance of the interviewers in the two communities, the team obtained a letter of introduction from the *Fundación Mariana de Jesús* for Solanda and assistance in entering the community from the *Banco Ecuatoriano de Vivienda* for Lucha de los Pobres. These measures helped, as the rate of refusal was negligible.

## II. Socio-Economic Context of the Solanda and Lucha Projects

The rate of urbanization in Ecuador is significant, and brings with it serious challenges to the Government to meet the basic needs of its population: food, shelter, education, health services (both preventive and curative), transportation, employment, and the constructive use of free time.

The 1974 population and housing census established that 6.5 million Ecuadorians were living in 1.37 million shelter units, of which 49% were substandard, with 42% of these being in rural areas and 7% in the urban areas. Eight years later, the 1982 census shows that there were 1.88 million shelter units for a population of 8.14 million inhabitants.

In this period of time, 471,000 new housing units, of all kinds and descriptions, were constructed. Seventy three percent (73%) of the new shelter units were found in the urban areas. Some progress was made during this period, reducing the number of persons per unit from 4.74 in 1974 to 4.33 in 1982. This reduction in size, however, may be due to the formation of new households by young people, reflecting high fertility rates in previous years.

The *Instituto Nacional de Estadística y Censos* projects urban population in Ecuador to grow from 4.2 million in 1982 to 7.2 million in 1995, an increase of 4.23%.

Estimates of the housing deficit range from 430,000 (BEV, in 1987) to nearly 1,000,000 (*Una Visión Actualizada de la Pobreza en el Ecuador*, by Jaime Moncayo García, May 1988). In 1985, 68,585 housing units were produced by all sources. This includes:

BEV	7,000
IESS	9,681
Private Sector	4,345
Informal Sector	47,559

Most of the informally built housing is constructed in areas without basic urban services, such as water and sewer, road access for safety and health vehicles and basic transportation. The cost in infant mortality, sickness and other hardships is very high. The phenomenon of informal settlements, or *barrios periféricos*, became a serious problem in the major cities of Ecuador in the 1970s. In 1981, legislative initiatives resulted in *Reglamento 140*, which committed the government to regularize the informal settlements that had occurred up until that date. Any urbanization formed subsequently, required the "developers" to provide for adequate services.

It is in this context, then, that the Solanda project came about in an attempt to affect policies, procedures, and institutional capability to respond to the rapid urbanization and the shelter needs of Ecuadorian cities.

*Low and increasingly unstable urban incomes*

Incomes in Ecuadorian cities are not only low, but are decreasing in real value due to inflation. The Consumer Price Index for the cities of Quito, Guayaquil and Cuenca for lower middle income families rose by over 650% during the 1980 to May 1988 period, reaching rates of up to 48% per year. The rate of inflation for the period from January through May of 1988 was 22.7%, reaching 4.7% during the last month of this period (or an annual rate of 73.5%). See Table 1.A in Annex A.

Besides food, *basic needs* in urban areas also include items such as getting to and from work, energy for cooking, and the cost of public utilities. The real value of the monthly minimum salary (calculated using the Consumer Price Index for all items) dropped from US\$ 46 in July 1987 to US\$31 in May 1985, a reduction of 32.6%.<sup>1</sup> The cost of a nutritionally sufficient diet for a family of 6 members was equivalent to 2.8 minimum salaries in May 1988 (S/. 40,600 or US\$86).<sup>2</sup>

### **III. Description of Solanda "Integrated Shelter and Urban Development" Project**

#### **Goals and Objectives**

The Solanda Integrated Shelter and Urban Development Project is the third Housing Guaranty Project carried out in Ecuador [Project Number 518-0030; 518-HG-005]. It was authorized on February 2nd, 1980 by the Bureau for Latin America and the Caribbean, in the amount of \$20,000,000. The borrower is the Ecuadorian Housing Bank. As it was originally conceived, the project would produce: 4,500 basic shelter solutions; community facilities (schools, clinics, markets), infrastructure (streets, sewerage, water and electricity); comprehensive development program to include neighborhood organization, social assistance, employment generation and construction assistance; and, technical assistance to assist the development of policies and institutions designed to address the needs of the low income shelter sector of Ecuador.

The project was designed to require the participation and cooperation of a number of agencies. These consist of the Housing Bank, the Municipality of Quito, The Agency for International Development, the Foundation *Mariana de Jesús*, other supporting Ministries and organizations, and the ultimate borrowers themselves.

The Municipality of Quito was to supply water and schedule channeling of the Rio Grande for storm and waste water. The Ecuadorian Housing Bank was responsible for setting a cost recovery policy that would not decapitalize the institution; this Bank, or other implementing agencies, was to obtain formal commitments from the appropriate authorities to equip and staff the community facilities, public transport, and other municipal services in accordance with its development schedule. Furthermore, there were to be formal agreements among the various implementing agencies defining areas of responsibility for delivery of Project components (off-site infrastructure, project design, community facilities). The beneficiaries, with incomes between the bottom 10th and 45th percentiles of the metro area's income distribution, were to contribute savings toward the housing and will add additional financial and personal resources to expand their dwelling unit. The Foundation Mariana de Jesus was responsible for donating the land for the building site, and for developing the community infrastructure and social programs.

The Agency for International Development was committed to provide technical assistance for a three year period to assist in the implementation of the project and in the development of the appropriate policies and procedures. This was to be done through a Grant Agreement, project number 518-0030. Originally, this grant was not to exceed \$430,000.

This project was conceived as the first of a series of integrated urban development projects. It was intended to serve as a demonstration model for development of a new Ecuadorian system for implementing urban development projects by combining low-cost housing, physical and social infrastructure, employment and training activities, and community organization. Subsequent projects would focus on secondary cities, with a possible third project in Guayaquil. All housing guaranty funds for Ecuador were to be tied together by one central objective: the establishment and operation of a new Ecuadorian system for planning, coordinating, financing, and implementing comprehensive programs that serve the needs of the Ecuadorian urban poor. When the efforts of all these planned projects were combined, they were intended to develop: a governmental policy framework suitable for addressing urban development needs at a scale commensurate with the extent of the problem; institutional capacity to implement such programs; new technological and methodological approaches; and appropriate staff to substantially increase the volume of resources directed to the urban poor.

### *Participating Institutions*

**Ecuadorian Housing Bank:** This Bank, which is the Government's principal housing finance institution, was established in 1961, with assistance from A.I.D.. The BEV was established as a state financial entity responsible for making loans to low income families, and in this way expand the shelter finance services then being offered by the Ecuadorian Institute of Social Security. In 1973, the *Junta Nacional de Vivienda* (the National Housing Board) was established and joined to the BEV—they share the same president. The JNV provides design and construction services. Prior to the Solanda project, these joint institutions produced an average of 5,000 units per year.

**National Housing Board:** The National Housing Board provides for the construction of shelter units, on-site infrastructure, and community facilities. The JNV has acquired partial ownership of several factories producing such construction materials as cement, bathroom fixtures, bricks, and concrete sewage pipes.

**The Mariana de Jesús Foundation:** This foundation is a non-profit, charitable organization, which was established in the late 1940s by Dona Maria Augusta Urrutia de Escudero. At the time the project Solanda was designed, the foundation was well staffed, and divided into three departments: a technical department with three architects and two engineers; a social work department with three professionals and a secretary; and an accounting department with a staff of fourteen. Since the late 1960s the foundation has been concentrating on social interest housing. As will be discussed later in this evaluation, the foundation has undergone substantial changes in its staffing, board composition, and hence its ability to carry out its charge. Its founder and president died in late 1987, which

further compounded the difficulties of this institution. There were also changes in key personnel during this period.

**The Municipality of Quito:** The City of Quito is responsible for approval of plans, granting of urbanization and construction permits, providing water and sewer services, and granting franchises for public transportation by the *Concejo Superior de Transporte Público*.

The Solanda project was planned as part of an incremental approach to affect policies, procedures and institutional capacity at both the national and local levels. Solanda would serve as a realistic example of the type of policy needed, and the approach to institutional, technical and human resources to address the problems involved in urban development projects.

*Project Elements:*

**Physical:** The project was designed to produce approximately 4,500 low cost housing units, with complementary physical infrastructure.

**Financial:** Through resources of U.S.A.I.D., the Municipality of Quito, the National Housing Board/Housing Bank of Ecuador, the Foundation Mariana de Jesús, and the beneficiaries, financing would be provided for these units and the related physical and social infrastructure.

**Social:** Largely through the efforts of the Foundation, a complete social infrastructure was to be developed, including community facilities, employment and training programs to increase the productivity and income of the urban poor target group, and community organization. Approximately 70% of the units were targeted for families at or below the 26th percentile.

**Organizational:** Innovations in the organizational area were to include a delivery system that included a private foundation, and close coordination between this private sector organization and the Ecuadorian Housing Bank to provide for a full range of community services.

**Legal:** Legal elements of the project included changes to the loan mechanisms and their corresponding documentation; and changes to the standards employed by both the local municipality and the BEV/JNV.

Specifically, the project was planned to result in a number of innovations for the Ecuadorian context:

- 1) Serve low income families with affordable shelter solutions without government subsidy for construction or infrastructure;

- 2) Establish minimum infrastructure standards, progressive housing solutions that can be improved or expanded through self-help construction
- 3) Use an integrated approach to respond to the multiple problems of the poor considering low-cost housing, physical and social infrastructure, employment training, and community organizations.
- 4) Accept the financing of social interest projects at terms dictated by the marketplace;
- 5) Recognize the need for integration of urban development via national planning, and make a commitment to establish such a process
- 6) Make a new commitment to address the problems of the urban poor.

Financial inputs committed for the project included:

- JNV/BEV: US\$7.9 million for 26% of the cost of housing units and urbanization
- City of Quito: US\$11.5 million for off-site water and sewerage systems
- Foundation: US\$22.83 million for site and provision of social services, employment generation activities, and community facilities
- Beneficiaries: US\$2.18 million, as a 5% downpayment
- A.I.D.: US\$20 million HG, and up to \$630,000 grants for technical assistance and training

In total, contributions in land, services, and currency of approximately US\$65,040,000 were planned for the project, of which 31.7% was to be derived from A.I.D. sources.

#### *Background on the Solanda Project*

The project site had been considered for many years as a possible location for a major housing development serving low income families. The following is a brief sketch of the events leading up to the development of this housing guaranty project.

- 1968 The Foundation *Mariana de Jesús* received the land (72 Hectares) from its founder and president, for the purpose of building social interest housing
- 1973 The Foundation begins working on project design and financing

- 1975 The Foundation announcement published leading to 1,800 responses
- 1976 The Foundation decides to join forces with the JNV/BEV in order to carry out a project of this dimension
- 1977 The Foundation signs an agreement with the National Housing Bank committing both institutions to developing the tract of land to benefit low income groups
- 1977 Waiting list applications were updated (952 families)
- 1979 A.I.D. begins exploration of possibly funding this project as a means of achieving larger policy goals
- 1980 The Foundation and the Ecuadorian Housing Bank receive authorization from A.I.D. for financing through the Housing Guaranty Program.

The project documents translate its very broad scope and ambitious objectives into a long list of measurable targets, including the following:

**A. Serve low income families with affordable units**

- 1) Comprehensively planned residential development, serving those households with incomes between the 10th and 45th percentiles
- 2) Focus JNV/BEV on lower income (previously only *Hacienda Mena* served below median)
- 3) 4,500 solutions, ranging from 20m<sup>2</sup> and 78m<sup>2</sup> on lots from 60m<sup>2</sup> to 122m<sup>2</sup>, with all units having water and sewer sanitary fixtures
- 4) Bulk of units on 60m<sup>2</sup> lots.

**B. Minimum Infrastructure Standards and progressive unit designs**

- 1) On-site and off-site infrastructure: water supply, storm and sanitary sewers, access routes, and electricity
- 2) Cobblestone streets
- 3) Paved and unpaved sidewalks
- 4) Minimal parking provisions
- 5) Cement water pipes instead of steel
- 6) Wooden electric poles instead of pre-cast concrete poles
- 7) Less rigid standards for large sewage pipes
- 8) Community facilities reduced from original project design of \$20 million to a more modest complex of facilities (\$8 million).

**C. Integrated Approach**

- 1) Comprehensive community development program, to include neighborhood organization, social assistance, construction assistance and the support or creation of small businesses and community-owned enterprises.

For every 1,100 families, there will be one of the following:

- a primary school
- recreational facilities
- kindergarten
- day-care center
- commercial center
- space for various cooperative or community endeavors

Larger installations, such as the following will be developed over time in a wide central zone of land for community facilities:

- fully staffed health clinic
- boys' high school
- cultural center
- sports areas
- administrative center
- the larger community-owned enterprises

The Ministry of Education and the Provincial Council have accepted a donation of land on the edge of the project and the responsibility for building a girls' high school with capacity for 4,000 students.

- 2) CONADE's Urban Development Secretariat to set up the Integrated Urban Development Fund to plan and coordinate this type of project, with the JNV as a possible replacement in this role
- 3) BEV to focus on broader needs of social services, employment training, and complementary infrastructure
- 4) Link community based organizations, non-profits, and other private and public institutions that help low income best use the resources available
- 5) The emergence of a series of public and private sector "developers" who can design and implement integrated urban development projects at the target group level
- 6) Social infrastructure: schools, health centers, markets, day-care centers, community centers, recreation areas, public service outlets (police, post office, municipality), commercial outlets, a cultural and community center, and offices for co-op organization. This is to be done through careful planning and inter-institutional coordination
- 7) Job creation and training, most likely through small industry credits and technical assistance

- 8) **Social organization: foster the *minga*, through cooperatives and other forms of organization**
- 9) **Institutional coordination: JNV (policy); developer (MDJ); financial entity (BEV); City government; Ministries (health, education, labor)**

**D. Acceptance of financing of social interest housing at terms dictated by the marketplace**

- 1) **Variable lending techniques; utility tariff structures; creation of mechanisms to assure funding of the social infrastructure, credits for the job creation element, and other project components**

**E. Recognition of the need for integration of urban development through national planning, and a commitment to institute such a process**

- 1) **Technical assistance to the government in macro-level urban planning, so that projects are well planned and are coordinated among all concerned entities in accordance with Ecuadorian policies**

2) **Planning process to serve as model**

3) **Technical assistance program at the national level to result in:**

- **Set of urban development and low-cost shelter design standards with emphasis on the provision of community facilities, and environmental protection guidelines**
- **Shelter finance policies to reflect the need for flexibility with serving low income families (financing of partial solutions, graduated-payment financing), and the need to maintain a healthy base of resources in addition to Government of Ecuador funding available for investment in shelter programs**
- **Set of guidelines for establishing user charges for public infrastructure and other policies of local government affecting shelter project planning and design**

4) **Technical Assistance at the project level to result in**

- **Application of comprehensive planning process between public and private sector institutions**
- **Formulation and application of an evaluation system, resulting in formulation of a national system for integrated urban programs for the poor**

- **Model program of community development and organization with emphasis on the design and use of appropriate facilities and income generation**
- **Program for assisting self-help housing construction and home improvement**

## **V. Performance in Achieving the Objectives of the Solanda Project**

As seen in the discussion on the projected results of the project, the scope was very ambitious, with correspondingly high levels of outputs described.

Over-all, the evaluation team views the Solanda project as successful in achieving the majority of its larger policy objectives, in spite of numerous problems, and several areas of significant shortcomings.

The housing guaranty program, in general, is intended as a vehicle for achieving policy dialogue and change, strengthening of institutional capability, and the development of approaches to shelter and urban problems that are consistent with the dimensions of the problem. It is in these areas that the Solanda project was most successful. Secondly, the housing guaranty program supports individual projects that demonstrate innovative approaches to urban problems. As a demonstration program, the Solanda project provided ample experience for the principal institutions involved in the design, finance and delivery of large-scale projects to serve the urban low income population. Again, in this area, the project cannot be seen as other than successful, even though many of the project level objectives were not achieved in their entirety, and problems remain to be resolved.

The following overview summarizes the status of the project completion to date.

**Over-all Status of Project (May, 1988).** All of the units planned to be constructed at Solanda are now complete, according to the plans. The Ecuadorian Housing Bank reports that 5,746 units have been constructed, which exceeds the planned number by 28%. The project is serviced with water, sewer, electricity, access roads, sidewalks, community space, transportation, and some educational, religious, and social services.

Applicants have been selected and processed for all of the units, with the exception of the 128 "Bridge" units, which had little appeal. [Bridge units are small, elevated single room units suspended between two tri-plex buildings intended to keep vehicles from driving down the pedestrian paths.] Loans have been approved and processed for 1,046 families. Of these families, 692 have applied for and received home improvement loans from the BEV to finance their expansion. An additional 1,698 families are nearing completion of the allocation process and will be able to move in to their units shortly. Thus, 44 percent of the units are either occupied or close to being in the possession of their owners. The remaining families face a period of up to six months before they will be able to take occupancy.

A review of the site indicates that a significant amount of improvements have been made already. Based on a random sample of Sectors 1 and 3 (the

first two Sectors to be turned over to the borrowers), the owners of 76% of the units in Sector 1 have made improvements, as have 48% of the owners in Sector 3.

A minimal number of community facilities have been constructed, and a very limited number of social programs have been started. The reduced number of facilities and programs is due largely to organizational and financial problems of the Foundation Mariana de Jesus.

Eighty percent (80%) of the housing guaranty funds have been disbursed, and still additional funds may be requested by the BEV for home improvement loans and other qualifying mortgages.

The following summary highlights the accomplishments and shortcomings of the project in regard to its specific objectives, as enumerated in the project documents.

#### A. Affordable Housing Units for Low-Income Families

1. Affect policies of the JNV/BEV to have it serve lower income target populations.

Prior to the Solanda project, the JNV/BEV had developed only one project with a below-median income target group, the Mena Project. As can be seen from the following chart, the BEV has a large majority of its units under production destined for below-median income families. [Median income as of May, 1988: S/. 53,112. Source of information: Gladys de Sosa, BEV Regional Director for Quito, Socio-Economic Department.]

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#### JNV/BEV Projects in production

Carapungo:	36m2	3,500 single family units, Plan Techo Maximum income: S/. 45,000 (5/88)
Turubamba	36m2	1,754 units in two Sectors, Maximum Income: S/. 48,000 (5/88)
Turubamba	45&48m2	900 Apartment units for middle income
Las Cuadras		450 middle income units
Los Andes		75 middle income units
Pichincha		150 middle income units
Conquistador		106 multi-family apartment units

In sum, the total production of these units is:

Low income units in production:	5,254	73.6%
Middle income units in production:	1,877	26.4%
Total	7,131	100.0%

## 2. Reduce housing costs by lower standards and progressive approaches

### a. Housing Types

The original Solanda plan called for complete housing units. Over time, A.I.D. was able to assist the Foundation, the JNV/BEV and the Municipality of Quito, to accept lower standards for both housing units and infrastructure. As a result of delays in the project, still further modifications were needed, and the latter phases of the project included piso-techo units, and even a small number of urbanized lots with services (617 units). The City of Quito accepted the lower standards for unit design, but only accepted some of the infrastructure standards. The City approved reduced parking requirements, cobblestone side streets (although they were not used), and a smaller lot size (60m<sup>2</sup>).

Initially, the target was to construct 4,500 solutions, ranging from 20m<sup>2</sup> to 78m<sup>2</sup> on lots ranging from 60m<sup>2</sup> to 122m<sup>2</sup>, with all units having water and sewer and sanitary fixtures. A total of 5,746 units have been constructed, which represents an increase of 27.6% above the original projections. Of these total units, it is not clear yet how many will be occupied by A.I.D. eligible families, although data currently available indicates that over 80% will be so qualified. The following shows the total number of units, by solution size and lot size:

<i>Unit Type</i>	<i>Number</i>	<i>Lot Size</i>
Floor and Roof	1,007	A (60m <sup>2</sup> )
Floor and Roof	103	B (92m <sup>2</sup> )
Floor and Roof	852	C (82m <sup>2</sup> )
Basic Unit	111	A 1 floor complete
Basic Unit	86	C 1 floor complete
Basic Unit	547	A
Basic Unit	410	C
Basic Unit	69	A 2 floors completed
Basic Unit	1	B 2 floors complete
Basic Unit	41	C 2 floors completed
Serviced Lot	617	
Bridge Unit	128	D (123m <sup>2</sup> )
Townhouse Apartments	553	D
2nd Level Apartments	553	D
Commercial Apartments	553	D
Urbanized Lot with Standard Units	23	B 2 floors, 3 bedrooms
" " "	92	B 1 floor, 1 bedroom
<b>Totals:</b>	<b>5,724</b>	

In all, there were, then, 17 different combinations of lots and types of units.

All of the units in Solanda have basic water and sewer systems, and sanitary fixtures. As can be seen from the chart, a majority of the units were constructed on the 60m<sup>2</sup> lots: In Sector 1, for example, 49% percent of the units were built on the smallest lots, with 32% being on the next sized lot (82m<sup>2</sup>).

In Sector 2, 56% of the lots were the small, 60m<sup>2</sup>, size, with an additional 30% of the lots being the 82m<sup>2</sup> size.

With the exception of the tri-family units, which are not A.I.D. funded, all of the units are incomplete units and can be expanded to up to four bedrooms. Two of the apartment units may also be expanded, to add one additional bedroom.

The "Bridge" units have met with minimal acceptance, and the majority of them have not been adjudicated. They are small, elevated units, which have no room for expansion.

#### **b. Improvements, Build-out and Demolition**

A visual survey of Sectors 1 and 3 indicate that 62% of the families have already begun or completed expansion of their units. In Sector 1, this amounts to 76 percent of the units being expanded, and in Sector 3, 48% percent. Families in Sectors 2 and 4 have only recently received their units and most of them have not yet completed the documentation process, which would enable them to begin expansion. From various interviews, and personal observation, very few families have moved into the piso techo units prior to completing at least ground floor build-out.

Not all units have met with easy acceptance by the families. To maintain a more open sense in the community, the design of the piso-techo unit is such that it discourages adding a second floor over the front portion of the unit. Many families have demolished part of the superstructure in order to accommodate the adding of a second floor. Of the units with expansion in Sector 3, 37.5% have demolished part or all of the structure in order to accommodate a different building design. Thus, in light of the lack of controls on build-out, rather than discouraging this expansion, the design is leading to increased cost for expansion.

The sample survey showed that 12.4% of the families interviewed in Sector 1 and in the piso y techo units of Sector 3 stated that to "tear down the existing unit" was their highest priority before moving into the unit.

In the early Sectors, the triplex units also met with minimal acceptance, being ranked by the applicants as the least popular option. In the last

Sectors, however, the BEV allowed families to purchase two of these units together, which created great demand for them. These solutions, however, are not A.I.D. funded.

Still other families have progressed beyond expectations, and unfortunately, beyond safety standards. A number of units have reached to four stories, although the foundations are only designed to support three stories, and the families are only permitted to build two stories. A BEV engineer reported that because of the poor soil conditions at Solanda (high water content and high water table) the "sinking" of four stories units has resulting in neighboring units being "pushed up", resulting in cracks.

An early, undated survey of 752 units showed that 89 of them (11.8%) had expansions that were not executed according to permitted plans. The evaluation team's windshield survey of units in Sectors 1 and 3 revealed that 56% of the units in Sector 1 do not comply with BEV and Municipal set-back requirements and height restrictions. Thirty-two percent of those in Sector 3 do not comply. Of the units with improvements, this represents a solid majority: 71%. Most of the violations (83% of the units with violations) have to do with set-backs, followed by those units with additional floors above the two that are permitted (57%). The Tri-Family and Basic Units had the highest incidence of violations (68%), with Serviced Lots having the fewest (57%).

Half of the units surveyed had improvements to the facades. Four units had been subdivided into two or more family dwellings. Thirty-eight percent had added gardens or patios (patios are also largely in violation of the set-back requirements for pedestrian paths).

As noted previously, nearly seventy percent of the families who have received "keys" to their units have taken out a home improvement loan from the JNV/BEV. These loans are "signature" loans, requiring only about 1.5 months to process. The total combined borrowing for the initial unit, plus the expansion loan, cannot exceed, S/. 1,088,000. (May, 1988) There is no minimum loan amount. In Sector 1, these expansion loans are fixed rate for 15 years, at 19 percent interest. Some loans in Sector 1, and all the loans in subsequent Sectors have graduated payment structures, with annual increases of 6.7%. Loans have averaged S/.516,907, as seen in Table 1.

**Table 1**  
**Improvement Loans Made in Solanda: 1986 to 4/30/88**

<i>Year</i>	<i>Type of Loan</i>	<i>Number of Loans</i>	<i>Amount in Millions of S/. of 5/1988</i>
1986	Fixed Rate	286	93.8
1987	Fixed Rate	143	53.2
1987	Graduated Payment	143	63.8
1988 (4/30/88)	Fixed Rate	8	2.8
1988 (4/30/88)	Graduated Payment	112	44.1
<b>TOTALS</b>		<b>692</b>	<b>257.7</b>

The average annual value of these loans was:

1986	US\$ 328,000
1987	409,000
1988	391,000
1986-1988:	372,000

The following documents are required of loan applicants: copy of deed; identification documents; proof of being current in payments on basic loan; 2% of amount to be borrowed in savings.

Once documentation is complete, the JNV/BEV technician reviews the structure, and prepares a plan and budget to determine how much can be borrowed. Normally, funds are disbursed in three stages, consisting of 40%, 40% and 20% of the loan, with an inspection and accounting at each stage.

The improvement loan is a signature loan, but backed by the original mortgage which is an "Open Mortgage". Maximum permissible income as of May, 1988 is S/.53,200. The BEV uses a 28% ratio to calculate affordability. [Once borrowers are approved, they may increase their original loan up to their approved limit without having to be underwritten again. Thus, only their signature is needed for the home improvement loan.]

The technical department has met with groups from Solanda to explain the building construction and how they can expand. The foundations are constructed to withstand three floors, but the people are only permitted to construct two floors.

Many of the beneficiaries from Sector 4 of Solanda do not seek these loans because the amount they are able to borrow is too small.

Regarding illegal construction activity, such as the number of stories, or exceeding required set-backs, the BEV will not make loans where any improper construction has already taken place. And where their inspections note irregularities, they report them to the municipal authority for the southern part of the city. The municipality is disturbed by the violation of set-backs, and the unsafe and seemingly uncontrollable build-out, and hopes to reach an accord with the BEV and the Foundation to resolve this problem.

The process of housing production will be discussed in Chapter VI.

### 3. New finance mechanisms to serve lower income families in Ecuador

Although these finance mechanisms have been applied in other countries, several concepts used in this project were new to the Ecuador context. The JNV/BEV accepted and adopted a graduated payment plan, with initial negative amortization, in order to reach still lower income families. Down payments averaged 8% of the purchase price in Sector 4, and 8.29% in Sector 2. The project design originally called for a 5% contribution from the families as a down payment. Governmental policies subsequently eliminated the requirement of down payments in the BEV projects. Hence, this 8% average down payments represents a much larger contribution than expected from the families themselves. The BEV would often require families to contribute a down payment in order to reduce the loan amount and hence qualify for the loan payments. Loan terms in Sector 1 were 15 years, and for all other Sectors, 20 years. Interest rates for all Sectors are 19% except for Sector 1 where they are 18%, with graduated payments increasing 6.7% per year. Insufficient time has elapsed to assess whether these graduations will represent a serious hardship to the borrowers. Experience in other countries, however, has shown that there are potential dangers where incomes do not increase sufficiently to cover payment graduations.

A method of indexing payments is needed which will have enough flexibility to cope with these fluctuations in real income, while at the same time maintaining the real value of the mortgage principal. One method would be to use amortization periods longer than the loan period and have "balloon" payments at the end of the mortgage, allowing the borrower to refinance, if necessary, at the end of the term.

### 4. Develop institutional capacity to produce and service more housing units

The JNV/BEV adopted a number of procedures to speed up the project implementation process, largely in response to inputs from U.S.A.I.D. advisors. Most notably, the JNV/BEV instituted a computerized selection

process for expediting the beneficiary selection process and making it more objective. This system was used for the adjudication of the first two Sectors, but was only partially used in the latter two phases. Unfortunately, it is not being used currently on any other BEV projects, although it may be reinstated for some of the very large upcoming projects of the JNV/BEV. One participating agency representative stated that the computer methodology did not take into consideration enough of the need factors, such as family size and present circumstances. This was borne out by comments from residents in Sector 1, where young families received commercial units, which have only one room, and no place for expansion. Nevertheless, with the loan committee being able to screen and approve only 30 applicants per eight hour day, some automation is essential. The computer model may need further refinement to be more sensitive to some of these issues.

The household survey results show that despite these innovations, the elapsed time from submission of the application for the unit in Solanda was quite long. These data permit a detailed analysis of the elapsed time between each of the steps in the process of obtaining a house in Solanda: Application to adjudication, adjudication to authorization of occupancy, and, finally, from authorization of occupancy to occupancy.

The mean times calculated were:

Application to adjudication	3.1 years
Adjudication to authorization for occupancy	6.3 months
Authorization for occupancy to occupancy	6.1 months
Total from adjudication to occupancy	12.4 months
Total from application to occupancy	4.1 years

For a further discussion and data, see Chapter VI.

The waiting time is also reflected in the length of time they have been waiting for a housing solution. The following chart shows the year of application:

1970-1972	212	4.8%
1973-1975	218	4.9
1976-1978	359	8.1
1979-1981	1,266	28.5
1982-1984	2,391	53.7

According to the BEV, there are still 20 people per day who inquire about the units at Solanda.

Some of the delay between adjudication and occupancy might be due to the fact that the families are still paying rent on their previous housing unit and, therefore, lack resources for preparing their units for occupancy.

## 5. Reaching the low income target population

The study of income data would be difficult under any circumstances in Ecuador. The current inflationary spiral faced by the country complicates this analysis at both the urban and project (Solanda) levels. City-wide income distributions can change significantly from one month to the next with inflation rates running at 48% for the last 12 months and at over 70% for the May 1988 annualized rate. The recent increase of over 30% in the minimum wage further clouds this analysis. (This increase in the minimum wage is greater than the relative difference between the upper limits of the 20th and 40th percentiles.)

Increases in the minimum wage will boost the pay of salaried workers, while incomes of the self-employed, as well as the informal sector, will tend to lag behind. All households, however, suffer the erosive effects on real income due to Ecuador's current high inflation rate. The interaction between high inflation and periodic increases in the minimum wage create contradictory hypotheses with respect to determining an updated income distribution for Quito.

Given the dynamics of rapidly changing incomes, the design of shelter programs based on long-term lending is very challenging. For example, a worker who entered the Solanda project with an income equivalent to two minimum salaries in July 1987 (US\$84 in constant value) would have seen his or her real income decline by almost 31% to US\$58 by May 1988.

With the above caveats in mind, the following Table (Table 3A of Annex A) presents the evaluation team's best approximation of Quito's household income distribution adjusted and updated to May 1988.

Income	Lower	Upper Limit	Distribution	
<i>Percentile</i>	<i>Sucres (5/88)</i>	<i>Sucres (5/88)</i>	<i>minimum salaries</i>	<i>US\$</i>
10	0	27,000	1.9	57
20	27,001	35,000	2.4	74
30	35,001	39,000	2.7	82
40	39,001	45,000	3.1	96
50	45,001	53,000	3.7	113
50+	53,001			

According to the loan applications, as updated by the BEV's credit department, in the first Sector, families with incomes between the 5th percentile and the 47th percentile were served by the program (See Table 17A of Annex A.). In Sucres adjusted to May 1988 values and US\$, their incomes ranged from a low of S/. 25,700 (US\$55) to a high of S/. 52,700 (US\$112), with monthly payments ranging from S/. 9,000 (US\$19) to S/. 14,200 (US\$30). Prices of the units ranged from S/. 827,000 (US\$1,756) to S/. 1,034,000 (US\$ 2,195).

Based on a sample of over 400 adjudications, in the fourth Sector, families with incomes between the 5th percentile and the 30th percentile were served. The cost of units in Sucres of May 1988 ranged from S/. 581,000 (US\$1,234) to S/. 924,000 (US\$1,962). Family incomes ranged from a low of S/. 27,900 (US\$59) to a high of S/. 43,500 (US\$92).

A physical survey of the project site and discussions with officials of the participating institutions suggest, however, that there may have been an underestimation of household incomes on either or both the original loan application or our recent household survey. The rapidity of the build-out and the quality of much of the unit expansions and extensions may reveal a larger group of above median-income beneficiaries than indicated in our previous analysis of income distribution and survey results. The project design did allow, however, for up to 20% of the beneficiaries to be above median income since only 80% of the funds were derived from A.I.D.

The speed and quality of build-out could be explained by the propensity of families to use more than one source of credit, in addition to the BEV home improvement loan, including loans from relatives and employers, to finance this construction. The fact that the BEV discontinued requiring down payments may also have provided families with additional financial resources (See Chapter VI).

In spite of documentation supporting the view that nearly all the borrowers were below median income, the doubt still remains with some of the participating institutions as to whether the original target group was adequately served by this project.

An alternate indirect way to examine this issue is to analyze the housing conditions from which the beneficiaries moved. A study of the applicants for Solanda provides insight into their previous living conditions. Of 4,446 applicants in the study, 2,762 came from outside Quito. This represents 62.2%. The remainder came from Quito. Those who came from outside Quito have settled in Quito within the past 15 years, which is a period of great petroleum and other industrial development.

A substantial portion of the applicants had been living in substandard living conditions. The chart on the following page shows the shelter solutions from which they are coming:

Rented Rooms	49.7%
Lean-tos	7.3
Shacks	0.4
No Information	0.3
Galpones	0.2
Apartments	34.7
Houses	7.4

The majority of those coming from outside Quito are principally employed in: services (21.2%), professions (13.3%), workers (11.6%) and artisans (9.8%).

The applicants are, for the most part, low income according to this survey data. The principal wage earner accounts for 74.7% of the income. The spouse accounts for 21.3%, and the balance is from children, other family members and others, 4%.

The following table illustrates the economic activity of the heads of household for the applicants.

Activity	# of Men	# of Women	Total	Percent
Services	1,047	408	1,455	32.7%
Professions	706	197	903	20.3
Workers	763	104	867	19.5
Artisans	415	275	690	15.5
Street Vendors	157	291	448	10.1
Econ. Inactive	17	44	61	1.4
Unemployed	3	10	13	0.3
No Information	2	7	9	0.2

Of all applicants, 22% reported experience with construction work, including electricity, carpentry, tilework, ironwork and plumbing.

The household survey data permit a detailed analysis of the characteristics of those families who are currently living in Solanda. The following table shows that the residents are not that much different than the applicants in terms of economic activity:

Activity	Applicants	Residents
Services	32.7%	28.9%
Professions	20.3	19.9
Workers	19.5	18.2
Artisans	15.5	12.4
Street Vendors	10.1	9.5
Unemployed or Inact.	1.7	3.7
No information	0.2	4.0

[These categories are defined as follow:

**Services:** concierges, domestic employes, messengers, guards, warehousepersons, laundry personnel, stevedores

**Professionals:** drivers, professionals, military personnel, nurse assistants, police, bookkeepers, secretaries

**Workers:** factory workers, mechanics, heavy equipment operators, electricians, painters, masons, construction workers

**Artisans:** tailors or seamstresses, carpenters, tailors, shoe-makers, other crafts]

Thus, it would seem that the selection process did not "filter out" those of lower socio-professional categories.

Another test of whether the housing reached the lower income population is the analysis of the former housing conditions. See Chapter VI.

#### **B. Reduced Infrastructure Standards**

All basic infrastructure has been supplied to Solanda: on-site and off-site water, electricity, storm and sanitary sewers, access roads. However, only some of the reduction in standards for Solanda were implemented. They include: allowance of cobblestone side streets; reduced parking requirements; small lot sizes; less extensive complex of community facilities. Several objectives were not achieved in this area, including: wooden electric poles instead of pre-cast concrete poles, cement water pipes instead of steel, less rigid standards for large sewage pipes.

Water is supplied to the project from collection on Atacaso, is filtered and carried 11 kilometers through PVC pipe to the Chillogallo storage tank. This supplies three communities, including Turubamba, Las Cuadras and Solanda. Some water is also available from Cillabullo, although this may be temporary. A BEV sanitary engineer indicated that the water supply is more than sufficient for all three communities, even when Solanda is completely occupied. One resident indicated that water supply was not sufficient in Sector 4. The water distribution system is carried in covered iron pipes, ranging from 14" down to 2". The BEV engineer interviewed stated that the water system is of the highest quality.

The household survey, however, revealed many complaints about the water pressure and the shortage of supply. Many considered this to be one of the most serious problems with the project. More details are presented in Chapter V below.

The waste water system is a combined one, with both drainage and sewage carried in the same system. This system consists of cement pipes from 200 mm up to 1,100 mm. There are three main discharges into a nearby river. The sewage system is standard quality, according to BEV engineers.

The main roads and side roads are asphalted. The cross streets, of which there are four, have a 3" layer of asphalt over 80 cm of substructure. These roads (V1) are 10M80cm in width. The main streets and cul-de-sacs are 8M 40cm and 6M in width, respectively. These roads (V2 and V3) have 2" of

asphalt. Sector 4 has 90cm of substructure, due to very poor soil compacting.

The City will receive all infrastructure, and hence City standards had to be met.

Lighting of streets, and electrical connections are standard, with each unit having individual meters, uniphase only. All units have water meters.

Families are still waiting for telephone service in most of the project.

Although some reductions in building design and site standards were allowed for Solanda, interviews with some representatives of the Municipality did not indicate a willingness to apply these standards to other communities. If anything, the Solanda experience may have hardened the city's position, at least initially. As the former Director of the City's Planning Department for Marginal Communities stated: "The solution to affordable housing is not smaller units, but rather, less expensive units." [He failed, however, to supply suggestions on how else to provide less expensive units.] The U.S.A.I.D. Mission staff has advised the study that this position is changing, indicating that a new team of municipal authorities has been more open to innovative ideas and solutions regarding the use of more cost-effective standards for land use planning and the provision of housing and basic services.

### C. Integrated Approach to Urban Development

#### 1. Provision of community facilities.

The construction and staffing of community facilities was an integral part of the project design. Unfortunately, only a small portion of this community infrastructure has been constructed to date. The site plan calls for a number of facilities in each of the four Sectors, with additional facilities in a central zone, which divides the property from east to west.

Of the extensive facilities included in the project plan, only the following are currently installed:

#### Bus Park

Primary school in Sector 1, *Fe y Alegria*

Community Building in Sector 1

Girls high school

Renovation of the Hacienda to be used for offices and as museum

The common spaces, which will eventually be turned into community use, remain in the name of the Foundation. During the course of project implementation, the Foundation suffered several major set-backs. First, the staff went on strike over wage issues, and were out for over a year, before a subsidiary, ALTUR, was established to enable the Foundation to

continue its work. ALTUR is still functioning, with a staff of 4 working at Solanda, but only two of these four are serving in service-capacities. The Foundation itself released all of its staff, which resulted in an unfavorable financial settlement for the Foundation.

The second major set-back was the inability of the Foundation to obtain "profits" from another project, the Granja, in order to fund the construction and staffing of community facilities and social programs at Solanda, as was planned. Some attempts were made to find resources to supplant this other source, but the results have been minimal. Staff of the Foundation (ALTUR) now expect the residents to apply pressure on the governmental agencies to have them supply the needed facilities, and requisite staffing.

This pressure is being felt by the city, and the city's position appears to be that the problem belongs to the BEV and the Foundation.

## 2. Provide for an effective community participation and social programs

The Foundation is making efforts to organize the residents and provide for some of their social and community needs. With two professional staff, this is an awesome task. The Foundation staff are still hopeful that its financial circumstances will improve and allow for greater financial inputs. The major practical solution, however, is that the families will organize themselves as the needs arise. It appears that much of the community energy is still focussed on expansion of the units to accommodate the families spatial needs.

Activities that were planned, but never carried out, include: job creation and training; small industry credit and technical assistance. A number of organizations have developed in the community, and are receiving assistance from the Foundation's social worker, namely: Sequoia club; CEMUS; Comité pro mejoras; and the Sporting Club.

This is one of the areas of greatest disappointment in the Solanda Project. In addition to the problems encountered by the Foundation, which bore primary responsibility for this project component, the protracted implementation period also caused a dis-phasing of A.I.D. technical assistance inputs in this area. Hence, much of the technical assistance that was targeted to support this component occurred too early--before the units were occupied and families were ready to participate.

Numerous delays were caused by factors beyond the control of the project. They include: poor weather from "El Niño"; labor strikes; new legislation requiring adjustments to contracts to cope with increasing inflation; overall economic conditions requiring further reduction in standards and redesigning of both individual units and site plans.

Nevertheless, the Solanda project was indeed successful in supporting a delivery model that paired the JNV/BEV with a non-profit foundation. This

relationship developed between a private voluntary organization and the government was a positive one, as judged by representatives of both organizations. The Foundation, in addition to donating the land for the site, performed the home visits, screened applicants, maintained public relations with the applicants over the protracted development period, and constructed and staffed some of the community facilities. Although this approach was viewed as very constructive, the model has not been repeated by the BEV, nor does it appear to be planned for any imminent projects.

## V. The Cooperative *Lucha de los Pobres*

The housing cooperative *Lucha de los Pobres* (Struggle of the Poor) is an informal settlement that came about through an invasion of the Hacienda Santa Ana, in the south east portion of the city of Quito. The purpose of the co-op was to develop a model low income housing community for families without access to shelter through conventional means. This objective of developing a model city was not achieved, but nevertheless, these people did obtain housing that they would not have otherwise had. Governmental institutions assisted this initiative, providing infrastructure and services.

### A. History of the project

This co-op grew out of a pre-cooperative *Juan Montalvo* in 1982. This pre-cooperative organized an invasion in *La Inmaculada* in 1982, which is located in the southwest part of Quito, with a plan of establishing 180 lots for its members. This bold and successful experience initially did not meet with any repressive governmental actions. Inspired by this success, a group of leaders and members of the pre-cooperative began organization for a more ambitious endeavor.

By the end of 1982, these directors had developed an organization that was solid, well disciplined, technically competent and led by a left leaning political party, the *Frente Amplio de Izquierda* (FADI). They formed the housing cooperative *Lucha de los Pobres*, with an initial 100 members.

In the early months of 1983 the leadership of this co-op began the first contacts with Mrs. Archena Peñaherrera Perkins, owner of the Hacienda Santa Ana, with the goal of negotiating its purchase. Their proposal was rejected.

From that date forward, they began organizing to invade this hacienda. At the same time, they set up an office in downtown Quito, offering 180m<sup>2</sup> lots at a cost of S/. 206,000 [US\$437], hoping to increase their membership.

According to the founder of the co-op, the purpose of the housing co-op *Lucha de los Pobres* was to:

... develop a model housing project which would be called *Ciudad Modelo de los Pobres* (The Poor Peoples' Model City), for families of low incomes, who lacked the possibility of access to shelter through conventional means. It would be a model of affordable housing, with common areas, sport complex, food supplies. It would also have infrastructure, basic services and transportation.

Membership Requirements consisted of the following:

- 1) Possess no other real estate in the Province
- 2) Belong to no other housing cooperative
- 3) Have a minimum income of S/. 5,000
- 4) Pay a down payment of S/. 6,190
- 5) Pay S/. 2,000 upon moving onto the land
- 6) Pay additional legal expenses of S/. 3,000
- 7) Pay a non-refundable S/. 500 for office supplies
- 8) Pay S/. 500 per month for administrative expenses
- 9) Make regular monthly savings deposits within the family's economic possibilities

Based on these requirements, during the first six months of 1983, the co-op gained over 500 members. During this enrollment process the co-op held several general assemblies to plan the invasion of the Hacienda Santa Ana, which consists of 127 Hectares.

#### *Invasion Process and Initial Planning of the Settlement*

On 21 August, 1983, the co-op's 500 members assembled at 10 p.m. where the South Panamerican highway meets the access road to the Hacienda. They had previously planned their steps, including payment by each member of the initial quota of S/. 500 to buy wood, zinc and supplies, in order to set up provisional housing and maintain control of the site. The five hundred members and their families, totally about 1,500 people including adults and children, divided into groups to begin the ascent to the highest part of the Hacienda.

Each group was under the direction of a leader, with each leader having detailed instruction on how to begin the occupation. The first group settled at the highest point, and placed families at previously determined strategic points. The second group settled somewhat lower, locating families at the east and north boundaries of the site. The following groups covered from east to west and from north to south until the entire Hacienda was occupied. [Source: former leader of the cooperative.]

The families began to immediately set up shelter, using plastic sheeting to protect themselves from the cold.

The organization then began to set up defense operations, with each group building trenches and tunnels in their sector, supplying themselves with Molotov cocktails and stone. In the most vulnerable parts of the site, they set up observation platforms and formed groups of four members who kept vigil. These groups were relieved every three hours.

Within the first few days, the organization grew in breadth and depth. The invasion in one week's time had succeeded in obtaining the support of other populist groups in the capital and in the provinces, and had also

significantly increased its membership, now having upwards of 3,000 people squatting on the site. Within one month, the organization consisted of 36 districts, with each group consisting of 100 families under the responsibility of a coordinator.

From August 1983 until January 1984 the Ministry of Government issued three eviction decrees, but never took any action to carry them out. This was largely due to the capability of the leadership of the co-op in negotiating with the owner of the land, and her mediation with the governmental authorities.

Before the fifth month of illegal occupancy, around 1,500 members left the group because of fear of eviction caused by a successful displacement in another illegal settlement nearby, adjacent to *La Ecuatoriana*.

#### *Formal Leaders*

The recognized leaders of the co-op were the directors who organized and participated in the planning and execution of the invasion. These leaders belonged to the *Frente Amplio de Izquierda* (FADI). New leaders arose from time to time, named in the co-op's assemblies to coordinate in each district.

The highest level of decision making in the co-op rested with the President, as advised by a coordinating committee made up of all the district coordinators.

Each district planned community activities and in this way they sketched out street plans, constructed community buildings in some districts, and helped members build houses with wood, zinc, block and mud. Great group cohesion and strong ties of solidarity were developed in this period.

#### *Participating Institutions*

**Ministry of Social Welfare.** Through the Office for the Protection of Minors, this Ministry was the first governmental institution that participated in this co-op. At the beginning of 1984 it began doing a study to determine the needs of the pre-school population. In January 1984, a training workshop was carried out for 45 mothers and young people regarding the contents of pre-school education. Today, as the result of an agreement between the Ministry of Social Welfare and UNICEF, this Ministry offers a nonconventional program of child care with various modalities, including: health, nutrition, psych-social development, social protection and community participation components.]

- Twelve community day care centers that care for 180 children from ages 0 to 5 years;
- Two community day care centers that care for 160 children from the ages of 3 to 6 years;
- One community day care center that cares for 80 children from ages of 0 to 6;
- One communications workshop that produces a newspaper
- One library with 120 volumes for students (colegio)
- One tanker truck for the provision of water to the community
- Five playgrounds

### **Ministry of Education and Culture**

In 1984, the community constructed the school *Nicolás Guillén* of block, clay and zinc. This school had at the time of construction a capacity for 300 students. [Additional classrooms have since been added.] The Ministry of Education and Culture funded eight professors.

### **Ministry of Public Health**

In 1986, this Ministry implemented a sub-center of health with services of a doctor two hours per day, a nurses' aide and an aide. This center operates from Monday through Friday, offering health care for both prevention and cure. Staff provide training for female heads of households, and in cases of malnutrition, the clinic offers meals.

### **The Municipality**

In 1986, in the administration of Mayor Gustavo Herdoíza, eight school rooms were donated, with a total value of S/. 16,000,000, and added to the six rooms provided under the Provincial Council of the administration of Dr. Fabián Alarcón, for the school *Nicolás Guillén*, which has 450 children today.

The Municipality of Quito collaborated with the installation of definitive streets, which are currently being paved with stones.

### **Power Company**

During the year 1986, 5 transformers were installed, and electric wiring was provided from the Panamerican Highway to the east road, with S/. 5,000,000 from Congress, through the assistance of the FADI congressman, and S/. 5,000,000 through the candidacy of Mr. Rodrigo Paz, now the Mayor.

In January, 1988, the National Congressman of the FADI party obtained an additional S/ 4,500,000 from Congress to provide electric wiring from the east road to the Camino de los Incas.

## DINADER

At the end of 1986 DINADER installed a sports areas, complete with fields for soccer, basketball, volleyball and indoor soccer.

### Community Youth Development

In the beginning of June, 1987, this organization began a health training project, but it is not yet in force due to limited funds.

### *Process of Consolidating the Cooperative*

As in the case of any spontaneous settlement, each member family originally located its home on a provisional lot. After three years the cooperative began to redistribute lots definitively. This was done in three phases, and by sector. Lots were distributed according to these criteria:

- Seniority
- Minimum savings of S/. 15,000
- Active participation in the organization
- Compliance with the internal rules and regulations of the co-op
- Respect for the decision of the member to remain on the original lot.

At this time there are 2,496 members situated at the co-op, with 180 square meter lots. There are corner lots as well, which are 320 and 350 meters square. According to one director in opposition to FADI, "[these] lots . . . are held by privileged members of the leadership."

### *Origins of the Members of the co-operative*

Based on a study carried out by the Ministry of Social Welfare in August, 1987, the following chart reflects the origins of the members:

%	Origin
31.4	Loja
16.5	Cotopaxi
12.8	Pichincha
11.4	Bolívar
8.3	Chimborazo
4.1	Tungurahua
2.8	Azuay
2.8	El Oro
2.4	Imbabura
2.0	Los Ríos
5.5	Other locations

### Construction Process

The housing construction was carried out by each member through self help, in accordance with that member's economic situation. The Municipality of Quito has not objected to the construction standards. However, the city has required a 3 meter setback. Construction is predominantly block, clay and zinc. Those families with access to financing sources and other families who managed some savings through other means, constructed with cement, block and reinforcing bars, adding a second story.

According to a leader from the Ministry of Social Welfare and UNICEF program, "this construction is done primarily with family labor, and through the contracting of a *maestro* from the co-op itself, who would charge less than other brought from outside."

The survey of 300 families conducted in this study indicates that 80.3% of those interviewed had built with block; 12% built primarily with wood; 6.4% from a mixture of wood and block; and 3% with other materials.

### Housing Models

With the same survey data as a reference, the types of construction are as follow:

%	Type of Unit
82.2%	"Mediaguas" (house with one room of block, mud and zinc)
16.2%	"Single family homes" (with two rooms built from block, cement, eternit)
1.6%	"Complete homes" (with bedrooms, living room and kitchen)

Nearly all the homes are owned by the residents: 95.7%, with 1.4% rented and 2.9% in other categories.

Beginning in 1987, the cooperative attempted to arrange construction and home improvement loans with several Mutual Savings associations and with the San Francisco de Asis Credit Union, all to no avail, largely due to internal opposition in the cooperative.

According to one director, the Ecuadorian Cooperative Bank has made home improvement loans available to nearly 300 members. Nevertheless,

the Bank is no longer making loans [it is in receivership]. Loans up to S/. 280,000 were made. Other funds came from family savings.

### *Internal Community Organization*

From the invasion and the first months of settling in, the FADI group generated a progressive organization with a primary focus on maintaining control of the land. The strength of this group has dwindled, until the point that it was overcome by an opposing group: *Colonia Lojana*. On October 25, 1987, elections were held and the *Colonia Lojana* group won by one vote: 367 to 366, with a third group obtaining 270 votes.

Numerous organizations exist within the community, including the former leadership (FADI group); the *Frente de Reinvidicaciones y Defensa de la Cooperativa*; the *Frente Pro-desarrollo de la Cooperativa*; the *Comité Pro Mejoras*; neighborhood sporting groups with 25 boys clubs and 12 indoor women's clubs; and a youth cultural workshop, which has fallen into virtual inactivity.

### *Current Situation of the Cooperative*

As a result of the October 1987 elections in which the FADI board was displaced, in which two opposing groups were unable to achieve half plus one vote as required by the By-Laws, there is an absence of power.

After an unsuccessful attempt to form a coalition board of directors, and based on a lack of confidence on the part of the membership, the National Office for Cooperatives within the Ministry of Social Welfare placed the cooperative in receivership.

From October 1987 until June 1988, five different Receivers have been named, to date none of which has completed an audit of the co-op.

### *Legal Situation*

In 1984, as a result of the negotiation with the owner of the Hacienda to avoid displacement, a contract of sale was entered into for a price of S/. 297,000,000 (US\$639,000), with 22% annual interest. On that date, an account was opened in the Bank *Caja de Crédito Agrícola*, which is an agent of the Wholesale Market near the co-op. Each member makes deposits in this bank account, and to date the balance has been reduced to S/. 35,000,000, plus the respective interest.

In 1985, the co-op held a competition of five firms to prepare the site plan. They selected the company INCOVIC, which prepared the plans and submitted them to the municipality for its approval. This is still in process.

When the site plan is approved, the owner will give global title to the co-op, which in turn will prepare individual ownership documents for each member, upon completion of lot payments.

At the current time, there are only provisional titles to the land, provided by the owner. The members have the *minuta* to process the title, and the *acta* granted by the Peñaherrera family and the Office of Cooperatives. Based on this procedure, 2,496 lots have been adjudicated.

### *Problems Confronting the Community*

Directors and families interviewed indicated the following as priorities for immediate solutions:

- 1) Potable water, which is currently supplied by a tanker truck donated by the Ministry of Social Welfare, for 2,496 families. Pre-feasibility studies have been carried out to look at the possibility of providing water from springs of the City and INCOVIC.
- 2) Waste water system, as the current system of waste water removal is chaotic, generating a grave health problem.
- 3) Solid waste collection. These are sources of contamination and they cause illness for the children.
- 4) Transportation. There are four vans and one small bus that charge S/. 20, although they operate without proper authorization from the Transportation Department. Efforts have been undertaken to obtain a bus line from the co-op to the city center.

### *Conclusions*

1. The initial objectives of the co-op were probably unreachable: develop a model housing project "Model City for the Poor", with complete infrastructure including basic services, community buildings, sports complexes, transportation, food supply. While these objectives were not all achieved, however, the people did obtain housing, which in other circumstances would not have been possible. Furthermore, the build-out process has been considerable in the five years of the project.
2. The project has suffered a series of leadership problems typical of this type of informal community. Given the vitality of such communities, however, this failing does not seem to be permanent.
3. Despite the fact that the families did not have formal sources of financing, mechanisms developed within the community itself helped the build-out process. The community now has important achievements in terms of infrastructure and construction of homes.

4. From its beginning, this settlement was successful in gathering the support of government agencies, which translated into concrete actions and accomplishments: stone paving of the streets; electric lights; transportation; schools; health services; sports; recreation; educational services.
  
5. The community dynamic of this housing cooperative takes its shape from the law governing these informal settlements. The co-op is becoming a community organization that is less political and more oriented toward completion of improvements. This tendency toward a more apolitical community organization is progressively taking hold, since it represents the majority of the residents. At the same time, the minority groups that have been splintering the community are losing their hold.

## **VI. Comparison of the Efficiency and Effectiveness of the Urban Development Processes in Solanda and a Comparable Informal Settlement**

The following analysis compares the development process in Solanda and Lucha de Los Pobres using the results of the household survey.

### **A. Housing production**

#### **Method of construction**

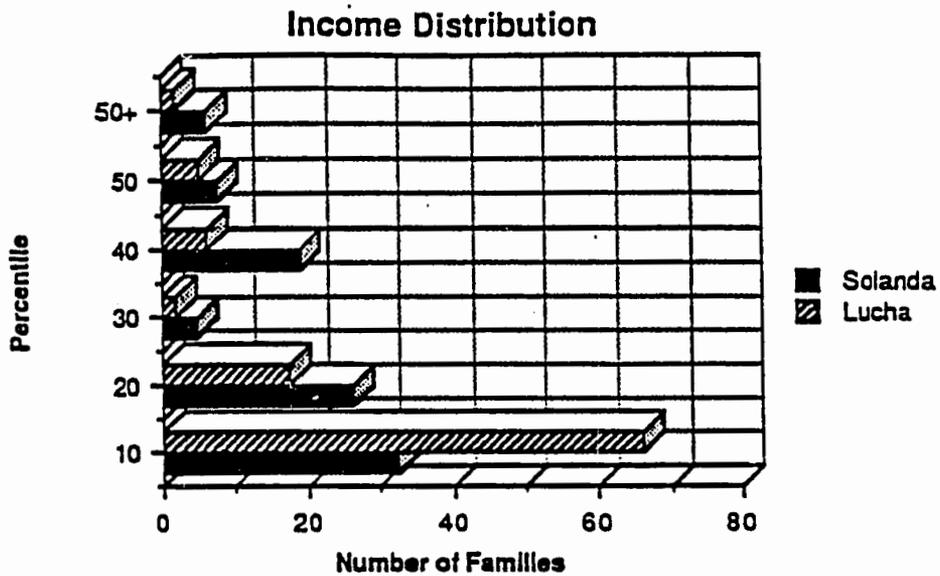
The portion of families doing the construction on their homes was only 6.2% in Solanda versus 40.4% in Lucha. See Graph 4.A (and Table 4 A in Annex A). In Lucha, this covers both the construction of the initial house and the improvements. In Solanda, 83.6% of the families in the sample have improved their units. Combining the construction by the families themselves with that of friends and relatives, brings this percentage up to 11.3 % for Solanda and 45.9 % for Lucha. Regarding the use of small contractors, 44.9% of the units in Lucha were constructed by contractors versus 77.1% in Solanda. One other important combination was that of construction by the family along with a contractor: 9.1% in Solanda and 4.5% in Lucha.

#### **Future plans for expansion**

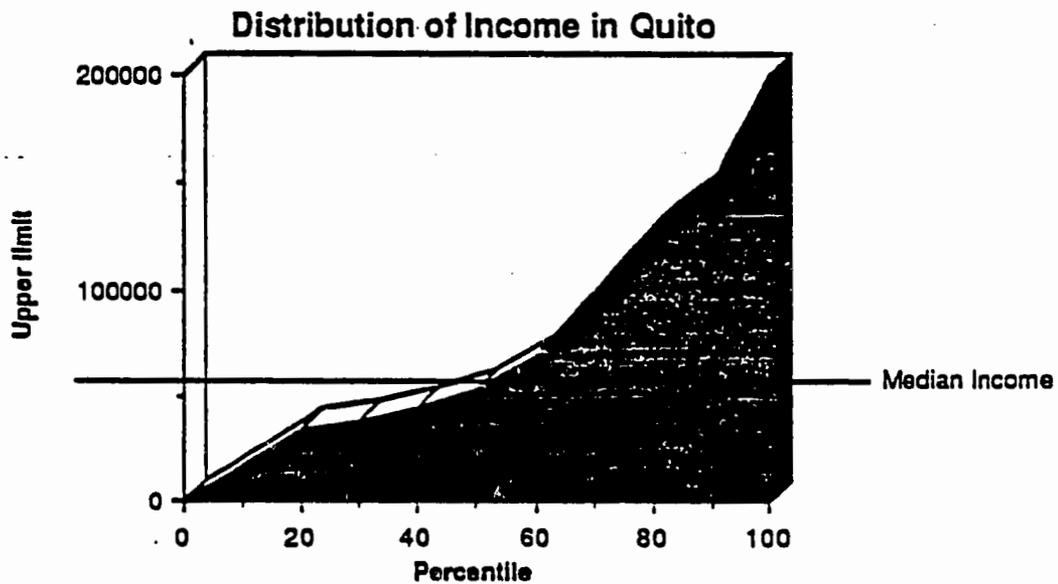
The percentage of families who plan to expand their units is much higher in Lucha (84.6%) than in Solanda (63.9%). See Table 5.A. Fewer than 2% of the families in either community plan to rent or sell their units, which is an indicator of satisfaction with the housing.

#### **Elapsed time from application to occupancy**

The average time from application to occupancy in Solanda was long: 4.1 years. See Graph 6 A (and Table 6.A in Annex A). This was 5 times higher than for Lucha, which took only 10 months. The time alone from adjudication to authorization of occupancy in Solanda took an average of more than 6 months, and from adjudication to occupancy took over a year. The delay from authorization of occupancy to actual occupancy in Solanda was due to the time necessary to improve the unit, as seen by the 81.6% who improved their units before occupancy. Some families were still paying rent while waiting for their units which reduced the amount of resources that they could invest.



**Graph 17.A**  
 The Solanda community has less than half the number of households as Lucha with incomes under the 10th percentile. On the average, Lucha households have a much lower family income than those residing in the Solanda community.



**Graph 3.A**  
 Cummulative percentile of upper income limits (in Sucres) per household in Quito

### Amount spent on housing construction and improvements

The average amount spent on housing improvements was S/. 345,000 in Solanda and S/. 207,000 in Lucha. The concentration in the over S/. 600,000 group was much higher in Solanda (19.4%) than in Lucha (9.5%). See Table 7.A. The difference is much greater when you add the original cost of the lot and partial or complete unit at Solanda. Using an average of S/. 700,000 for the lot and unit, the total investment in housing in Solanda averages over S/. 1,000,000, which is more than five times the average investment in Lucha.

### Sources of financing

The families in Solanda who did improvements were very adept at obtaining financing. Table 8.A shows that of the 276 families who made improvements and responded on the source of funds, 231 had financial resources other than monthly income, including savings. Many had more than one source, with the average being 1.8 sources of obtaining funds for each family with access to credit.

The most common sources of financing in Solanda were savings (35.8% of all sources of finance), BEV (22.5%), loans from relative (16.5%) and loans at place of employment (8.6).

One of the most striking differences between Solanda and Lucha is the access to credit and savings for home improvements. See Table 9.A. Only 30 of the total of 84 families in Lucha who made improvements had access to sources of financing, but these 30 had access to 2.6 sources each. The most important sources were savings (53.2%) and BEV (24.1%). In other words, few families had access to credit, but those who did used multiple sources.

### B. Current and previous housing and family conditions

The following sections analyze the former and current housing conditions of the families in Lucha, as well as the former ones in Solanda. It is, of course, not necessary to analyze the current ones in Solanda, as they are known through the project documents. The conditions of the housing unit from which the family moved is another indicator of not only income, but also of accumulated assets.

Water supply. Table 10.A shows that the conditions of the families in Lucha deteriorated substantially in terms of access to water after their move. In their former residences, 46.3% had access to water from the public network with in-house plumbing and 21.7% got their water from a shared tap. In Lucha, the only sources of water are tanker trucks, which is the only source for most (54.0%). Some families combine this source with spring and rain water. For this reason, the question of who obtains water

from the tanker truck, donated to the cooperative by the Ministry of Social Welfare, is a very contested issue. During the in-depth interviews, there was a confrontation between two groups as to who would get the water from the truck. There is a charge for this water, which is sold by the barrel.

Interestingly, the families now living in Lucha were willing to trade off access to water in their former residences, for ownership of a home in Lucha. Over two thirds of the families in Lucha had access to public water systems in their former homes. The access to water in their previous homes was considerably better for the inhabitants of Solanda, than for Lucha with 93.4% having had access to public water works or shared taps in their previous location.

**Sanitary facilities.** The sanitary conditions in Lucha are very low. Eight percent of the units have private or communal sanitary facilities. An additional 82.6% have only rudimentary latrines and 9.4% have no facility at all. These conditions also deteriorated considerably from those in their previous dwelling units. Prior to moving to Lucha, 72.3% percent of the families had private or communal sanitary facilities, 24.9% had rudimentary latrines and only 2.9% had no facilities at all. See Table 11.A.

The sanitary facilities of Solanda's residents before their move were much better than those from Lucha. Still, 37.5% of those from Solanda had previously lived in units with shared bathroom facilities.

High percentages of families in Solanda (96.2%) and Lucha (69.4%) had access to the public sewer system in their previous living situations, although, as seen above, many had this access via shared facilities. See Table 12.A.

**Number of Rooms.** The current housing units in Lucha are for the most part larger than the previous housing unit. For example, 52.7 units have 2 or less rooms in Lucha versus 66.8 in the previous units. This may indicate, then, that unit size, along with the possibility of ownership, may be a factor in persuading the families to accept less in the way of infrastructure. See Table 13.A.

**Tenure status.** The great majority of the residents of both Solanda and Lucha lived in rented homes before their moves. This was a requirement for participation in Solanda, and hence only one family reported having owned their previous home. In Lucha, 12.3% reported that they owned their previous home. Ninety-one percent in Solanda rented their previous home, with the balance receiving their housing free or for services rendered. In Lucha, 81.1% rented, with the remainder receiving their housing free or for services rendered. See Table 14.A.

**Roofing materials.** There was a much higher prevalence of concrete and asbestos as roofing materials in their previous homes for residents of

Solanda (65.6%) than in Lucha (40.3%). This is an indicator that the Solanda residents lived in higher quality units. See Table 15.A.

#### *Family Size*

Average family size in Solanda was 4.85 members versus 5.29 members in Lucha. See Table 16.A.

#### *Distribution of household income*

The interpretation of these household income data are subject to all of the limitations discussed previous in this report. The results, however, are interesting. See Table 17.A. In Solanda, 32.4% of all families had incomes under the 10th percentile as determined in the project paper (1.9 minimum salary or US\$57) versus 66.2% in Lucha—over twice the relative concentration of families in this lowest percentile. For the 20th percentile (upper limit of 2.4 minimum salaries or US\$74), the concentration was 58.7% in Solanda and 83.7% in Lucha.

According to the calculations of the previously cited study of salaries and income,<sup>3</sup> the cost of a minimum diet for a family of six is 2.8 minimum salaries, S/. 40,600 or US\$86. In Solanda, 63.4% had incomes of less than S/. 39,000 versus 87.7% in Lucha. However, not all families have six members.

#### *Income of the head of the household as share of total income*

The average percentage share of the head of the household's income of total family income tended to be slightly higher in Solanda for all percentiles except the 50th, where it was substantially higher. See Table 18.A.

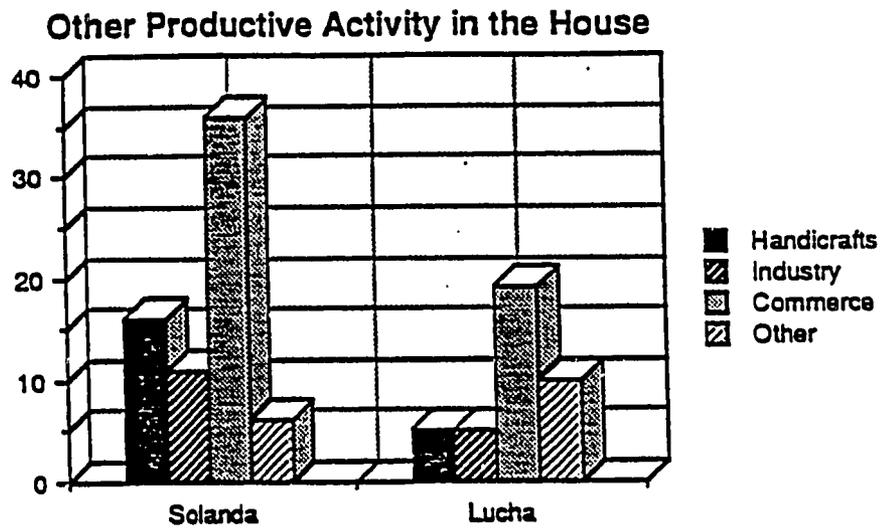
#### *Characteristics of the head of the household*

Occupation. As mentioned earlier, the heads of households in Solanda tend to be concentrated in the lower socio-professional groups. See Table 19.A. Only 3.3% were unemployed. In Lucha, 22.9% of the heads of households do not have steady jobs. See Table 20.A.

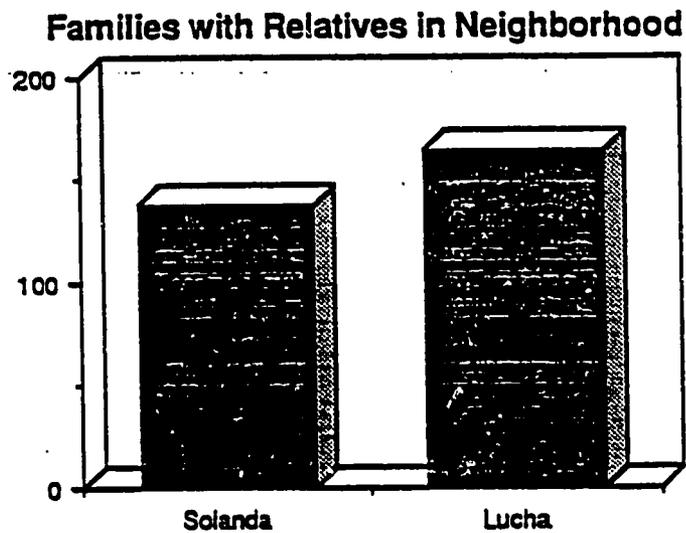
Location of last residence. The vast majority of the heads of household in the survey moved from a previous residence in Quito. For Solanda, this was 95.7% and for Lucha, 85.4%. See Table 21.A.

#### *Rented Spaces*

Studies of other informal settlements have shown that rented spaces are very important sources of income. This is not the case in either Solanda or Lucha, with less than 2% renting space in their homes. See Table 22.A.



**Graph 23.A**  
 Close to 20% of Solanda residents use their residences for economic activities, with commerce predominating among both communities.



**Graph 25.A**  
 Over a third of the families in both communities have relatives living in the neighborhood.

### *Use of housing unit for other economic activities*

Nearly 20% of the families in Solanda use their units for productive activity, such as handicrafts (4.6%), small industry (3.2%), commerce (11.3%), or other (0.6%). In Lucha, only 10% of the families use their homes for purposes other than housing: handicrafts and small industry (2.8%); commerce (5.7%); or other (2.0%). See Table 23.A.

### *Community participation*

There was very little participation in community organizations in either community: 81.5% of those in Solanda and 90.6% of those in Lucha stated that they did not participate in any neighborhood organization. See Table 24.A. In Lucha, of course, all residents are members of the cooperative. In Solanda, only 6.1% of the families reported that they participated in the neighborhood improvement associations.

### *Relatives in the neighborhood*

The presence of relatives in Solanda is high (39.9%), but higher still Lucha (46.9%). See Table 25.A.

### **C. Felt needs for infrastructure and major problems of the housing unit and the neighborhood**

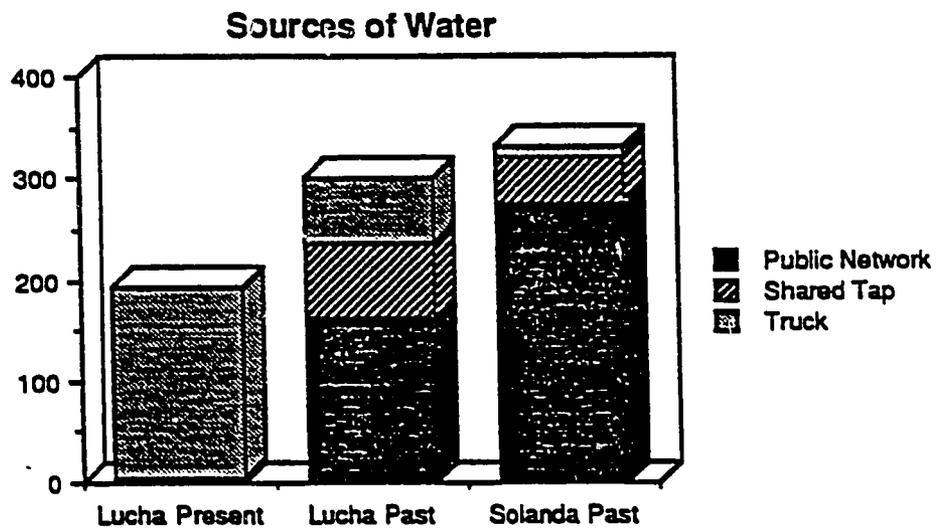
Table 26.A shows the felt needs of the two communities in terms of urban infrastructure. For Solanda, the most highly ranked problems are:

1. Police Post
2. Telephones
3. Water Supply
4. Garbage collection
5. Health Center

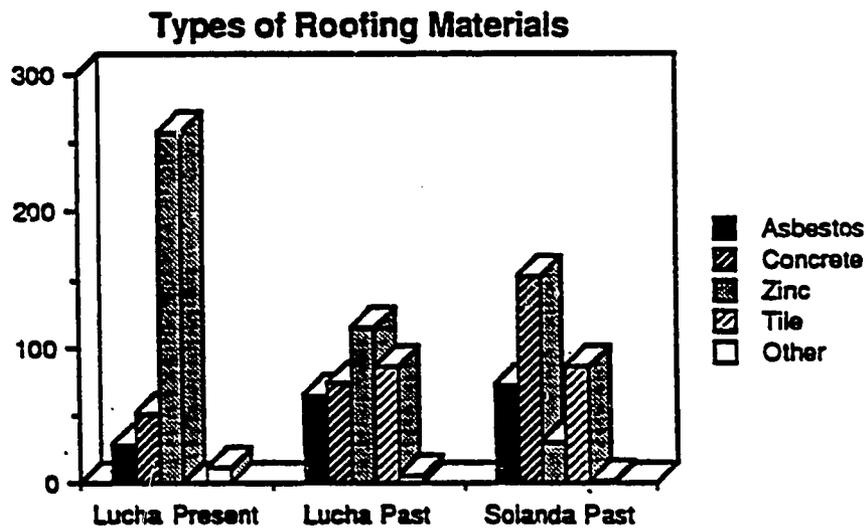
The importance of water is notable, for although the Solanda project has a piped water system, the pressure is usually low, and there are periods of two or three days at a time when there is no water supply at all. The Health Center was supposed to be provided as part of the project plan. Lucha, however, lobbied for and received a health center.

For Lucha, the most important problems are:

1. Water Supply and Waste Water Systems
2. Public Transportation
3. Solid Waste Collection
4. Street lighting
5. Police Post



**Graph 10.A**  
Sources of water were available to more Lucha and Solanda families at their past residences than are available currently in the Lucha community.



**Graph 15.A**  
The types of roofing materials varied in the previous residences of Solanda and Lucha families, although those of Solanda families tended to be of higher quality material. Roofs in the current Lucha community are predominately zinc.

As mentioned earlier, the problem of water supply is particularly difficult in Lucha, especially for those who live high on the hill. The question of lack of adequate sanitary facilities was listed in the open-ended question as one of the most important.

#### **D. Conclusions from the household survey**

The chart on the following page summarizes some key indicators from the survey.

Many of the indicators show a higher level of organization at Lucha de los Pobres than at Solanda, and the probability that Lucha is serving a lower income population. Lucha has a much higher incidence of self help housing, larger family size along with higher number of relatives, lower incomes, more basic previous housing situation, less expensive construction, and fewer improvements. When coupled with the development time, it is clear that the community development process in Lucha was very effective, in spite of the internal political conflicts within the co-op.

The Solanda Project was planned in the late 1970s and incorporates many of the ideas of the *progressive housing approach* at that time. The progressive housing approach evolved based on careful participant observation of informal housing settlements. The concept was to incorporate some of the characteristics of the informal sector in the provision of low-cost housing in the formal sector. Clearly, this approach was much more effective at providing families with housing at affordable prices than the conventional approaches.

It is in regard to the role of the public sector that the approach is naive and very much different from that of the informal sector. Low-income and minority communities, whether in Latin America or other countries, know how to obtain concessions from public entities.<sup>4</sup> The Cooperative Lucha de los Pobres was very successful in pressuring public entities to provide physical and social infrastructure.

This political activity, so essential in the informal sector, is largely missing from the progressive housing approach. One reason is ideological. International experience suggests the importance of autonomy in building, of getting the government "off of the backs" of the poor, of letting them build their own settlements. The poor are very self-reliant. They have repeatedly shown that they do not need the large subsidies, often demanded by Latin American higher income groups, to resolve their shelter problems.

Indicator	Solanda	Lucha de los Pobres
Self Help Housing	6.2%	44.5%
Time to Occupancy	50 months	10 months
Cost of Improvements	S/. 345,000	S/. 207,000
Improved Units	79%	24%
Previous Access to:		
Water	80.1%	68%
Sanitary Facilities	99.4%	97.1%
Public Sewer	96.2%	69.4%
Two or fewer Rooms in Previous Home	41%	66.8%
Previous Roof materials		
Concrete or Asbestos	65.6%	40.3%
Average family size	4.85 persons	5.29 persons
Families below:		
10th percentile	32.4%	66.2%
20th percentile	58.7%	83.7%
Belong to community organization	6.1%	100.0%
Relatives in Community	39.9%	46.9%

An essential difference between Solanda and Lucha de Los Pobres is the role of the community in the development process. In Lucha, the cooperative organized the invasion of the site, helped in establishing the community and, then, "lobbied" for social and physical infrastructure. The integration and planning were "grass roots". *The community was formed first.*

Solanda was conceived as an innovative publicly sponsored housing project. It was planned and executed by a private foundation and public authorities for the poor, but not *by them*, until they moved onto the site. Although community participation was planned for, it would occur only after the project was occupied. The housing options were developed by architects and shown to the prospective buyers, along with suggestions for how to expand. The buildings were constructed, and subsequently allocated. This meant that many families did not necessarily receive what they wanted.

In Solanda, integrated action by public authorities was to provide the needed public services, but they often did not succeed in so doing. The foundation originally responsible for providing the majority of the public services is currently organizing the community to pressure the Municipality, much as in Lucha. Lucha now has a health center, but Solanda does not. This kind of activity can be seen as a kind of integration or planning process *from below*.

But in order to function, the government entities and other institutions must be capable of responding to these pressures from the community. This requires a broader urban sector strategy to strengthen the capacity of urban institutions to respond to the needs of the community as a whole, especially the low-income segment.

This would, then, be a kind of *bottom up* and *top down* strategy for responding to urban problems. On one hand there is improvement in the housing programs at the project level, encouraging greater community participation. On the other hand, there is an increase in the capacity of urban institutions to respond to the needs of the populations in a more equitable and efficient manner. The guiding principle is to resolve problems at the lowest level. For housing this would normally be at the community or project level, but for other services it might be the municipal or state levels, such as in the case of water.



*"The Lucha project shows clear evidence that families can build their own housing in an efficient and organized way. The greatest need of informal settlements is rational site planning, allocation of lots, provision of infrastructure, and the legalization of tenure. It may not be possible to provide as much infrastructure as was received in Solanda, but if the community is planned in a way that takes the physical and social infrastructure into consideration, much future expense can be avoided."*

## VII. Conclusions and Recommendations

The following are some recommendations, based on this analysis, that could be incorporated into a two-fold strategy. The first are recommendations at the project level. These are followed by considerations of how these project level recommendations might be incorporated into an urban sector strategy.

### *Elements of the Solanda and Lucha projects to be incorporated into a broader urban strategy*

A number of elements from these two projects could be incorporated into future projects, and ultimately into a broader urban development strategy.

**Financial elements.** Projects such as Lucha de los Pobres would benefit from access to credit. The co-operative structure was highly effective in mobilizing initial capital and applying strict downpayment requirements. As poor as the families of Lucha obviously are, they were able to meet these requirements. They lacked, however, access to improvement loans for the vast majority of the members.

The Solanda project included a number of financial delivery mechanisms that were new to the Ecuadorian scene. Innovations included: graduated payment mortgages; signature loans for improvements; interest rates closer to market; application processing and preliminary underwriting by a non-profit community based organization. These innovative financial approaches and the institutional delivery system could easily be adapted for use in future sites and services programs.

However, some method of indexing payments with enough flexibility to deal with fluctuations in real income, and at the same time, maintain the real value of the mortgage principal may be needed in order to avoid decapitalizing the lending institutions. One method would be to permit borrowers to "balloon" payments at the end of the mortgage, allowing them to refinance the balance, if necessary, at the end of the loan term. The argument that indexing causes inflation is not a strong one. If applied across all sectors, it does build in a strong inertia which makes the economy resistant to monetary and fiscal policy. However, the argument here would be for indexing mortgages only, in order to make them viable investments in an inflationary economy.

**Organizational Elements.** A number of organizational aspects of the two projects can be of benefit to future efforts.

**Allocation of lots.** In sites and services or upgrading projects, the families should be able to choose their units to meet their own needs and preferences. The innovative computer assisted selection procedure developed in Solanda could be used to allocate families to lots. The problem

in Solanda arose when the computer allocation process was used to match families to the housing stock *after* the units were already built. The selection procedure could be used *before* units are built. This would avoid the waste caused by families demolishing part or all of the original units to adapt them to their needs and preferences. Presumably the Lucha project had none of this problem.

*Relieving administrative bottlenecks.* The strategy of eliminating administrative bottlenecks one by one in Solanda should be continued, especially in the case of the transfer of title. The computerized selection procedure eliminated one major administrative bottleneck. Once this problem was resolved, the quickened pace of allocation created a new problem: the system was not prepared to process the legal documents at the same pace. Once adjudicated, legal documents (the *escritura*) had to be prepared. The data was already on computer, but procedures called for the *escrituras* to be drafted on mechanical typewriters and, then passed on to the Notary Publics, where they were typed once again, this time on official paper. U.S.A.I.D./Ecuador encouraged the BEV to generate the draft legal documents on computer, thereby greatly increasing efficiency. However, the notary publics continue to re-type the documents. Even by distributing the drafts among many different notary publics, it takes from three to four months to do the paper work.

The logical next step is for the Notary Publics to begin working with word processors, receiving the draft documents from the BEV on floppy disks. There may be some initial resistance to this, but it should still be overcome. Another approach would be to redefine *preparation* by the notary to merely mean review and stamping. The BEV could then print the *escrituras* on the notaries' stationary for them to review and sign.

*Use of proxies for income.* Given that income data is unreliable and that real incomes change rapidly, administering agencies could use *proxies* for income level, rather than *income per se*. For example, the conditions of the applicant's housing unit (tenure, size, sanitary facilities, etc.) are strong indicators of the economic situation of the families. Another method would be to develop a a typology of socio-professional categories with less than median incomes (e.g., manual workers with less than a complete primary education, street vendors, etc.). Certainly, these methods are not without problems, but they would probably produce more reliable results than self certified income.

*Self Help Construction, Site Planning and Infrastructure.* The Lucha project shows clear evidence that the families can build their own housing in an efficient and organized way. The greatest need of informal settlements is rational site planning, allocation of lots, provision of infrastructure, and the legalization of tenure. It may not be possible to provide as much infrastructure as was received in Solanda, but if the community is planned in a way that takes the physical and social infrastructure into consideration, much future expense can be avoided.

The organizational structure of Lucha may be responsible for much of the rapid progress, although there were subsequent conflicts due to problems in the community's leadership. Solanda is almost totally lacking in community organization and also lacks the attendant conflicts. It remains to be seen whether these have been eliminated or merely postponed.

**Alternative Sanitation Technologies.** Much more could be done to encourage the use of alternative technologies for basic sanitation, especially by the private sector. Solanda did not achieve its objectives in this regard. For example, the sewer system is a standard *water-borne* system.

Programs which seek to improve the quality of sanitary facilities within housing units should receive support in a new shelter strategy. One way to accomplish this is to increase financial resources for the construction or improvement of bathrooms.

The private sector could develop and adopt alternative technologies for basic sanitation. For example, in Brazil, Technical Advisory Group (TAG) of The World Bank encouraged the development of a low-volume, flush toilet that reduces the amount of water used, as well as the volume of sewage that must be treated. It also lowers construction costs by permitting the use of smaller water storage tanks and pumps. Over 250,000 of these toilets were sold, until price controls made them unprofitable.

Another example from TAG/WB in Brazil is a prefabricated bathroom including septic tank, toilet, shower and laundry tank for less than US\$200. Other companies have expressed interest in producing the pre-fabricated bathrooms, low-volume toilets and other related items.

When sanitary solutions do not include traditional underground networks, they can be financed as part of the housing project itself. In effect, these facilities would be treated as "housing". This would facilitate cost recovery since the cost would be included in a basic mortgage or signature loan for each user. Many entities in addition to the sewer and water companies could promote and finance these units, including savings and loan associations, housing cooperatives, public housing authorities, local governments and neighborhood associations. This would introduce greater institutional diversity for such financing.

Greater emphasis should be placed on stimulating the private sector to develop and market low-cost technology. Early program evaluation would permit more timely learning from experience, as well as facilitating the diffusion of these innovations.

**Dialogue on Progressive Housing Approaches.** With the questions and concerns about the build-out in Solanda, there is an opportunity to encourage dialogue among municipal and governmental authorities, as well as the private sector, regarding progressive housing and alternative

approaches to infrastructure. As noted by the assistant to the mayor of Quito, seminars on this subject would be in order. This report may form the basis for such a seminar.

### **Reflections on An Urban Development Approach**

The experiences of Solanda and Lucha generate ideas for both modifying future projects and for a broader approach to urban development.

All of the above solutions work basically on the supply side by attempting to lower costs through alternative technologies and increased efficiency. But there are limits to how much one can reduce costs. A large portion of the urban population simply does not have the income to pay fully for adequate systems, as the results from our survey in Lucha de los Pobres show. However, little money will be available for direct subsidies, given the desperate condition of Ecuador's public sector. The programs must, then, not increase this deficit, thereby increasing inflation even higher. There are, however, three ways in which urban programs could better reach target low-income populations without increasing the public deficit: via cross subsidies within programs and across regions; increased government fiscal effort and efficiency; and targeting the resources to municipalities with the highest potential to attend low-income populations: <sup>5</sup>

#### **1. *Cross Subsidies within Programs and Across Regions***

Cost recovery could be achieved within programs with cross subsidies by charging higher user charges to higher income families. For example, the tariff structure for water could be made more progressive by charging higher marginal prices to those who consume more water. Such a measure could not only increase total receipts and make the tariff structure more progressive, but would also discourage waste.<sup>6</sup> This would be a much fairer way of increasing tariffs to levels where at least operational costs are covered.

In addition to the cross subsidies within programs, some cross subsidies might be possible across regions. *Harder* terms for higher income regions (e.g. higher interest rates or shorter terms) could be used to generate an urban development fund.

#### **2. *Improvements in Fiscal Efficiency and Equity***

Loans for municipal development could be paid back either from direct cost recovery from investments or general administrative and fiscal reforms (such as cutting the payroll or improving tax collection). For example, one could charge for water and sanitary facilities and pay for other social programs, where direct cost recovery is more difficult, from increases in general tax returns or cost reductions due to improvements in administrative efficiency.

In other words, cost recovery would be for the municipality as a whole and not merely for different programs. This would help to avoid total cost recovery from very poor families, where cost recovery is not always cost effective. In many cases, these costs could be covered by more efficient administrative and fiscal measures.<sup>7</sup>

The administration of the property tax is not only inefficient since many buildings are not included in the cadastre and the failure to bill many that are, but it is also unfair because the fiscal values relative to market values tend to be much lower for units of higher value, making the relative property tax rate quite regressive.<sup>8</sup>

A municipal development program could provide political benefits in the form of infrastructure to counterbalance the political costs of more efficient tax collection. The use of micro-computers could lower the cost of improving and maintaining the cadastre. Finally, the total tax increment for the program could finance a large municipal development program.

### **3. *Allocation of Funds in Accord with Capacity to Attain Social Objectives and Willingness to Implement Reform***

Although it may not be possible to implement such programs emphasizing cost recovery and institutional reform for all states and municipalities, it would be possible to do so in some of those areas with higher economic potential for job creation and income growth, as well as those with a desire for institutional change. Once implemented, these municipalities could assist in the diffusion of these innovations to other municipalities. All municipalities would be eligible for technical assistance loans to implement administrative reforms.

The approach then, attempts to work with these problems initially in municipalities with the highest potential for solving them. The *worst first* strategy usually does not work, and may also result in the allocation of resources to those areas that will lose population.

The following are three situations where municipalities outside the metropolitan regions would have potential to contribute to the economic and social welfare objectives:

- a. Areas of impact of large investments in social overhead capital, such as the railroads, large-scale irrigation projects, dams, etc.
- b. Resource frontiers.
- c. Other areas or centers which have a growing economic base. Some centers are growing because of local mining or agricultural activities, or because they have some kinds of dynamic local industries.

The first two types of areas will require either the structuring of an urban system where none exists or the massive restructuring of the existing urban system.

However, because there is no planning, these opportunities for attaining social objectives become social problems instead. Planning tends to be totally sectorial. The irrigation program does not make any provision for an urban system capable of providing needed inputs or for marketing increased production. For type "c", smaller scale investments will be necessary to eliminate bottlenecks such as infrastructure or drainage, or merely to provide general services. In some cases, it is only one such bottleneck that holds up the entire development process, such as drainage or potable water.

### Future Research

Future policy research might include:

- Further analysis of the survey data collected in this study. Although the team covered all of the items in the scope of work, there are literally hundreds of questions that could be addressed with this data via cross tabulations and more sophisticated statistical techniques. For example, one could analyze the determinants of build-out and improvement decisions in the two communities.
- Housing and basic sanitation needs for Ecuador including estimates of the total subsidies needed to provide different standards of services. Housing and basic sanitation needs should be analyzed by income groups, using data from INEC and from this research. As part of this study, it would be important to analyze the factors causing the rate of household formation to be higher than population growth and to do simulations of household growth.
- The feasibility of combining *grass roots elements*, such as those in Lucha, with *top down elements*, such as those in Solanda, into an integrated approach to urban development. The following is a first list of questions that would be important to ask about municipalities that might participate in such a program: What is the potential for future economic growth? What are the possible problems that will impede this growth? What are the needs in terms of infrastructure and other programs, health care, schools? Would the municipality be willing to borrow money and capable of repaying it? Would they be willing to implement administrative reforms and to reduce the payroll (if necessary)? Would they charge fees and betterment taxes for urban services? Would cross-subsidies be possible? Have they or would they use alternative technologies for urban services? Do they need and want technical assistance? How much could they improve their tax receipts by simply improving their tax roles?

## Footnotes

- 1 See table 1.A for the sources used in this calculation.
- 2 From Edgar de Labastida and Rob Vos, *El Salario y Los Niveles de Vida Urbanos en el Ecuador* (Quito: Instituto de Investigaciones Económicas, 1987). Value of December 1983 adjusted using the same sources as Table A.1.
- 3 *op. cit.*
- 4 In Brazil, developers of illegal settlements in peripheral areas (*loteamentos populares* or pirate settlements) often give building materials to the first buyers in order to attract them to the sites. The developers sell the sites furthest from the roads and infrastructure first, leaving the others vacant to increase in value as the new dwellers win urban services from public authorities.
- 5 Adapted from: David M. Vetter, *A Policy Framework for Cost Recovery for Infrastructure and Energy in Brazil*, Report prepared for the World Bank, Xerox, November 1987.
- 6 R. B. Billings and D. E. Agthe, "Price Elasticities for Water: A Case of Increasing Block Rates", *Land Economics*, Vol. 56, No. 1, February 1980, pp. 73-84.
- 7 For example, it does not make sense to try to achieve full cost recovery from very poor families for minimal improvements, when merely eliminating gross inequities in the property tax by bettering the tax rolls would cover this cost.
- 8 This is clear in a study of the Brazilian case: Ricardo Varsano, "O imposto predial e territorial: receita, eqüidade e adequado aos municípios," *Pesquisa e planejamento económico*, Volume 7, 1977, PP. 581-622.

**ANNEX A**

18

Table 1.A

Annual Rates of Inflation and the Real Value of the Minimum Salary for Urban Areas of Ecuador

Year	Indice: 5/1988=100	Rate per Period	Minimum Salary	
			Sucres of 5/1988	US\$ of 5/1988(a)
1975	7.6		16,456	35
1976	8.4	10.2%	17,921	38
1977	9.5	12.9%	15,867	34
1978	10.7	13.1%	14,029	30
1979	11.8	10.1%	16,984	36
1980	13.3	12.8%	30,122	64
1981	15.2	14.7%	26,253	56
1982	17.5	14.7%	26,331	56
1983	25.9	48.1%	21,644	46
1984	33.7	30.4%	19,564	42
1985	43.2	28.0%		
1986	53.1	23.0%		
7/1987	69.1	30.0%	20,982	45
5/1988	100.0	44.7%	14,500	31
7/1988			19,500	41

Sources of Original Data: Banco Central del Ecuador,  
 INDICE DE PRECIOS AL CONSUMIDOR: AREA URBANA, Junio 1988.  
 Index for the three largest cities of Ecuador.

NOTE: (a) Calculated using the average value of the US\$  
 for May (to sell): 1US\$ = S./ 471.

TABLE 2.A.  
SOLANDA HOUSEHOLD INCOME VERSUS PERCENTAGE OF INSTALLMENTS TO BEV

Percentage of income Devoted to BEV Installmts.	# Famils.	%	Installments	
			Minimum	Maximum
			(in sucres)	
45% to less than 50%				
40% to less than 45%				
35% to less than 40%				
30% to less than 35%	19	5.5	5800	9800
25% to less than 30%	40	11.6	5400	11000
20% to less than 25%	130	37.6	5000	7000
15% to less than 20%	116	33.5	4400	9300
10% to less than 15%	19	5.5	5500	9600
More than 50 %	3		5600	21100
NO-RESPONSE	19	5.5		
<b>TOTAL</b>	<b>346</b>	<b>100.0</b>		

TABLE 3.A.

Household Income Distribution in Quito (Mid-1979)

Income Distribution Percentile	Percentiles				Frequency	
	Lower	Upper Limit		Distribution		
	Sucres (5/88)	Sucres (5/88)	minimum salaries	US\$	%	Accum. %
(a)	(b)	(b)	(c)	(d)		
10	0	27,000	1.9	56	33.5	33.5
20	27,001	35,000	2.4	73	27.2	60.7
30	35,001	39,000	2.7	81	4.8	65.5
40	39,001	45,000	3.1	94	19.8	85.3
50	45,001	53,000	3.7	110	8.1	93.4
50+	53,001				6.6	100.0
<b>TOTAL</b>					<b>100.0</b>	

NOTES: (a) Estimates of upper limits are from:  
USAID, ECUADOR: PROJECT PAPER: INTEGRATED SHELTER AND URBAN  
DEVELOPMENT, p. 58.

(b) These estimates were transformed into Sucres of  
May 1988, using the consumer price index of Table 1, and then  
rounded to the nearest thousand.

(c) Calculated using the value of the minimum salary for June:  
S/ 14,500.

(d) Calculated using the value of the US\$ at the beginning of  
June: 1US\$ = S/ 480.

88

TABLE 4.A.  
 SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--  
 WHO DID THE IMPROVEMENTS?

ACTOR	SOLANDA		LUCHA	
	# FAMILIES	%	# FAMILIES	%
Self-Help (family members)	17	6.2	36	40.4
Small Contractor	213	77.2	40	44.9
Relatives	9	3.3	2	2.2
Friends	4	1.4	1	1.1
S.Help+S.Contractor	25	9.1	4	4.5
S.Help+Relatives	1	0.4	2	2.2
S.Help+Friends		0.0	2	2.2
S.Contrac.+Relatives	2	0.7	1	1.1
S.Contrac.+Professional	5	1.8	1	1.1
<b>TOTAL</b>	<b>276</b>	<b>100.0</b>	<b>89</b>	<b>100.0</b>

TABLE 5.A.

SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--  
 HOUSING FUTURE PLANS

CATEGORY	SOLANDA		LUCHA	
	NO. FAMILIES	%	NO. FAMILIES	%
Extention	221	63.9	296	84.6
To be sold	1	0.3	2	0.6
To be rented	5	1.4	5	1.4
Nothing	116	33.5	42	12.0
NO-RESPONSE	3	0.9	5	1.4
	<b>346</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>

81

TABLE 6.A.  
 SOLANDA AND LUCHA DE LOS POBRES COMPARISONS  
 ELAPSED TIME OF THE HOUSING PROCESS

	S O L A N D A : L U C H A			
	Time in Months			
	Total	%	Total	%
From APPLICATION to the program to ADJUDICATION*	37.2	75.0	6	60.0
Time from ADJUDICATION to AUTHORIZATION OF OCCUPANCY	6.3	12.7	N/A	
Time from ADJUDICATION to OCCUPANCY	12.37	25.0	N/A	
From AUTHOR.OF OCCUPANCY to OCCUPANCY (house construcc./improvts.period)*	6.07	12.2	4	40.0
TOTAL Time from APPLICATION to the program to OCCUPANCY	49.57	100.0	10	100.0
TOTAL IN YEARS	4.1		0.8	

\* Time between Application to starting of house construction/improvements

TABLE 7.A.  
 SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--  
 AMOUNT SPENT IN HOUSING IMPROVEMENTS (ALL)  
 (in sucres)

SOLANDA COST/FAM.	# FAMILIES	%	LUCHA # FAMILIES	%
800-50000	11	4.8	29	34.5
50001-100000	17	7.4	15	17.9
100001-300000	79	34.2	21	25.0
300001-600000	80	34.6	11	13.1
600001-950000	44	19.0	8	9.5
TOTAL	231	100	84	100.00

MEAN FOR SOLANDA -----> 345077  
 (in sucres)

MEAN FOR LUCHA--> 206811

ST.dVT.-----> 270511

ST.dVT--> 237824

Coef. of Variation---> 0.783914

C.of Variation -->1.14995817

80

SOLANDA  
SOURCES OF FINANCING FOR HOUSING IMPROVEMENTS

TABLE B.A.

Sources of Financing (a)	Total Number of Sources	%
Savings	145	35.8
BEV	91	22.5
IESS	25	6.2
Pawn Shop	2	0.5
Loan from Relative	67	16.5
Savings Coop.	11	2.7
Savings and Loan Inst.	4	1.0
Job's Loan	35	8.6
By Selling a good	23	5.7
Other	2	0.5
<hr/>		
A. Total Sources	405	100.0
B. Total Families with Financing	231	
C. Sources per Family (A/B)	1.8	
D. Total Families Doing Improvements	276	
E. Sources per Family (A/D)	1.47	
F. Total Sources Excluding Family Savings	260	
G. Per Family with Fin. (F/B)	1.1	
H. Total Fam. Doing Imp.(F/D)	0.9	

NOTE: (a) This tabulation excludes all families with no response or who did no improvements.

4/23

TABLE 9.A.

LUCHA DE LOS POBRES  
SOURCES OF FINANCING FOR HOUSING IMPROVEMENTS

Sources of Financing (a)	Total Number of Sources	Z
Savings	42	53.2
BEV	19	24.1
IESS	2	2.5
Pawn Shop		
Loan from Relative	5	6.3
Savings Coop.	2	2.5
Savings and Loan Inst.		
Job's Loan	4	5.1
By Selling a good	3	3.8
Other	2	2.5
<hr/>		
A. Total Sources	79	100.0
B. Total Families with Financing	30	
C. Sources per Family (A/B)	2.6	
D. Total Families Doing Improvements	84	
E. Sources per Family (A/D)	0.94	
F. Total Sources Excluding Family Savings	37	
G. Per Family with Fin. (F/B)	1.2	
H. Total Fam. Doing Imp. (F/D)	0.4	

NOTE: (a) This tabulation excludes all families with no response or who did no improvements.

TABLE 10.A.  
SOLANDA AND LUCHA DE LOS POBRES COMPARISONS  
WATER SUPPLY

Category	Present Status		Former Status			
	Lucha de los Pobres		Lucha de los Pobres		Solanda	
	# FAMILIES	%	# FAMILIES	%	# FAMILIES	%
Public Network	1	0.3	162	46.3	275	80.2
Shared Tap	3	0.9	76	21.7	45	13.1
Seam		0.0	5	1.4	2	0.6
Well	10	2.9	30	8.6	10	2.9
Spring	17	4.9	11	3.1	1	0.3
Rain Water	2	0.6	1	0.3		0.0
Truck Distribution	189	54.0	63	18.0	10	2.9
Other	2	0.6	2	0.6		0.0
Spring + Truck Distribution	12	3.4				0.0
Rain Water + Truck Dist.	93	26.6		0.0		0.0
Other Combinations	21	6.0		0.0		0.0
<b>TOTAL</b>	<b>350</b>	<b>100.0</b>	<b>350.00</b>	<b>100.0</b>	<b>343.00</b>	<b>100.0</b>

TABLE 11.A.  
LUCHA DE LOS POBRES AND SOLANDA COMPARISONS  
SANITARY FACILITY

Category	Present Status		Former Status			
	Lucha de los Pobres		Lucha de los Pobres		Solanda	
	# FAMILIES	%	# FAMILIES	%	# FAMILIES	%
Private Sanitary	10	2.9	73	20.9	208	60.5
Communal Sanitary	18	5.1	180.00	51.4	129	37.5
Latrine	289	82.6	87	24.9	5	1.5
Nothing	33	9.4	10.00	2.9	2	0.6
<b>TOTAL</b>	<b>350</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>	<b>344</b>	<b>100.0</b>

TABLE 12.A.  
LUCHA DE LOS POBRES AND SOLANDA COMPARISONS

SEWER SYSTEMS

Category	Present Status		Former Status		Solanda	
	# Famils.	%	# Famils.	%	# Famils	%
Public Network	19	5.4	243	69.4	331	96.2
Pit Latrine	191	54.6	67	19.1	9	2.6
Nothing	140	40.0	40	11.4	4	1.2
<b>TOTAL</b>	<b>350</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>	<b>344</b>	<b>100.0</b>

TABLE 13.A.  
LUCHA DE LOS POBRES AND SOLANDA COMPARISONS

NUMBER OF ROOMS

Category	Present Status		Former Status		Solanda	
	# Famils.	%	# Famils.	%	# Famils.	%
1 ROOMS	62	17.8	91	26.1	38	11.05
2	124	35.5	142	40.7	103	29.94
3	76	21.8	84	24.1	91	26.45
4	58	16.6	14	4.0	70	20.35
5	11	3.2	9	2.6	37	10.76
6	11	3.2	5	1.4	5	1.45
More than:	7	2.0	4	1.1		0.00
<b>TOTAL</b>	<b>349</b>	<b>100.0</b>	<b>349</b>	<b>100.0</b>	<b>344</b>	<b>100.00</b>

SOLANDA

LUCHA

MEAN=2.9  
STD.DVT=1.23

MEAN=2.26  
STD.DVT=1.26

86

TABLE 14.A.  
LUCHA DE LOS POBRES AND SOLANDA COMPARISONS

HOUSING PROPERTY STATUS

Category	Present Status		Former Status			
	Lucha de los Pobres		Lucha de los Pobres		Solanda	
	# Famlis.	%	# Famlis.	%	# Famlis.	%
Own	339	96.6	43	12.3	1	0.3
Rent	7	7.0	284	81.1	315	91.0
Free	5	5.0	13	3.7	15	4.3
For services Rendered			8	2.3	5	1.4
Other			2	0.6	10	2.9
<b>TOTAL</b>	<b>350</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>	<b>346</b>	<b>100.0</b>

TABLE 15.A.  
SOLANDA AND LUCHA DE LOS POBRES -COMPARISONS  
ROOFING MATERIALS

Category	Present Status		Former Status			
	Lucha de los Pobres		Lucha de los Pobres		Solanda	
	# Famlis.	%	# Famlis.	%	# Famlis.	%
Asbestos	28	8.0	65	18.7	72	21.0
concrete	51	14.7	75	21.6	153	44.6
zinc	258	74.1	115	33.0	30	8.7
tile			86	24.7	86	25.1
row		0.0	2	0.6		0.0
Combined	9	2.6	3	0.9		0.0
other	2	0.6	2	0.6	2	0.6
<b>TOTAL</b>	<b>348</b>	<b>100.0</b>	<b>348</b>	<b>100.0</b>	<b>343</b>	<b>100.0</b>

81

TABLE 16.A.  
SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--  
HOUSEHOLD SIZE

S O L A N D A			L U C H A			A
MEMBERS	# FAMILIE	%	TOTAL MEMBERS	# FAMILIE	%	TOTAL MEMBERS
1-3	50	14.5	135	53	15.1	140
4-6	256	74.0	1240	215	61.4	1050
> 6	39	11.3	301	82	23.4	663
NO RESP	1	0.3	1			
	346	100.00	1677	350	100	1853

MEAN=4.85  
ST.DEV.=1.52

MEAN=5.29  
ST.DEV.=1.94

TABLE 17.A.  
LUCHA DE LOS POBRES AND SOLANDA COMPARISONS  
HOUSEHOLD INCOME DISTRIBUTION

Income Distribution Percentile (a)	!Sucres	S O L A N D A		L U C H A	
		!# Famil.	%	!# Famil.	%
10	!0-27,000	112	32.37	232	66.29
20	!27,001-35,000	91	26.30	61	17.43
30	!35,001-39,000	16	4.62	7	2.00
40	!39,001-45,000	66	19.08	22	6.29
50	!45,001-53,000	27	7.80	18	5.14
50 +	!53,001 AND MORE	22	6.36	6	1.71
NO-RESPONSE		12	3.47	4	1.14
TOTAL		346	100.00	350	100.00

Note (a): In values of units of minimum salaries and US \$ dollars  
see Table 3A

88

TABLE 18.A.  
LUCHA DE LOS POBRES AND SOLANDA COMPARISONS  
HEAD OF HOUSEHOLD SHARE IN TOTAL HOUSEHOLD INCOME

Income Distribution Percentile (a)	Sucre	S O L A N D A		L U C H A	
		No. Families	%	No. Families	%
10	0-27,000	112	89.1	232	87.4
20	27,001-35,000	91	84.0	61	82.2
30	35,001-39,000	16	77.6	7	72.2
40	39,001-45,000	66	75.9	22	75.6
50	45,001-53,000	27	79.0	18	70.9
50 +	53,001 AND MORE	22	71.8	6	55.7
NO-RESPONSE		12		4	
TOTAL		346		350	

Note (a): In values of units of minimum salaries and US \$ dollars  
see Table 3A

TABLE 19.A.  
SOLANDA  
OCCUPATION OF HEAD OF HOUSEHOLD

Occupation	No. Families	%
Street Vendors	33	9.5
Indep. Worker (artesano)	43	12.4
Worker/Employee	63	18.2
Services Work.	100	28.9
Professional	69	19.9
Non-classified unemployed	24	6.9
NO-RESPONSE	1	0.3
TOTAL	346	100.0

TABLE 20.A.  
 LUCHA DE LOS POBRES  
 OCCUPATION OF HEAD OF HOUSEHOLD

Category	NO. FAMILIES	%
OCCATIONAL W.	80	22.86
PERMANENT W.	254	72.57
NO-RESPONSE	16	4.57
TOTAL	350	100.00

TABLE 21.A.  
 SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--

PLACE	SOLANDA		LUCHA	
	NO. FAMILIES	%	NO. FAMILIES	%
QUITO	331	95.7	299	85.4
Rest of Urban country	8	2.3	26	7.4
Rest of rural country	5	1.4	24	6.9
No-Response	2	0.6	1	0.3
TOTAL	346	100.0	350	100.00

TABLE 22.A.  
 SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--

SPACES	SOLANDA		LUCHA	
	NO. FAMILIES	%	NO. FAMILIES	%
YES	1	0.3	5	1.4
NO	342	98.8	340	97.1
NO-RESP.	3	0.9	5	1.4
	346	100	TOTAL	350 100.00

TABLE 23.A.  
SOLANDA AND LUCHA DE LOS POBRES --COMPARISONS  
OTHER PRODUCTIVE ACTIVITY IN THE HOUSE

CATEGORY	SOLANDA		LUCHA	
	#FAMIL.	%	#FAMIL.	%
HANDICRAFTS	16	4.6	5	1.4
SMALL INDUSTRY	11	3.2	5	1.4
COMMERCE	36	10.4	19	5.4
COMMERCE + HANDICRAFTS	1	0.3		
COMMERCE + SMALL INDUSTRY	2	0.6	1	0.3
OTHER ACTIVITIES	2	0.6	7	2.0
HOUSING ONLY	277	80.1	311	88.9
NO-RESPONSE	1	0.3	2	0.6
<b>TOTAL</b>	<b>346</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>

TABLE 24.A.  
SOLANDA AND LUCHA DE LOS POBRES--COMPARISONS--

PARTICIPATION IN COMMUNITY ORGANIZATIONS

SOLANDA			LUCHA		
ORGANIZATION/ PARTICIPATION	NO. FAMILIES	%	ORGANIZATION/ PARTICIPATION	NO. Fami.	%
Comite Pro-mejoras	21	6.1	Neighborhood Ass.	13	3.7
CENUS	5	1.4	Sporting Club	11	3.1
CECOYA	2	0.6	Childs Represt.	1	0.3
Sporting Club	32	9.2	Do not participate	317	90.6
do not participate	282	81.5	OTHER	3	0.9
OTHER	2	0.6	NO-RESPONSE	5	1.4
NO-RESPONSE	2	0.6			
<b>TOTAL</b>	<b>346</b>	<b>100.0</b>	<b>TOTAL</b>	<b>350</b>	<b>100.00</b>

TABLE 25.A  
SOLANDA AND LUCHA DE LOS POBRES --COMPARISONS  
RELATIVES IN THE NEIGHBORHOOD

RELATIVES	SOLANDA		LUCHA	
	NO. FAMILIES	%	NO. FAMILIES	%
YES	138	39.9	164	46.9
NO	205	59.2	184	52.6
NO-RESP.	3	0.9	2	0.6
<b>TOTAL</b>	<b>346</b>	<b>100.0</b>	<b>350</b>	<b>100.0</b>

TABLE 26.A.  
 LUCHA DE LOS POBRES AND SOLANDA COMPARISONS  
 COMMUNITY FELT NEEDS

Category	S O L A N D A			L U C H A		
	Responses	%	Rank	Responses	%	Rank
Public Transportation	57	5.9		162	16.4	2
Water Supply	163	16.8	3	298	30.1	1
Public Lights	18	1.9		121	12.2	4
Telephones	171	17.7	2	14	1.4	
Garbage Collection	147	15.2	4	144	14.5	3
Health Center	106	11.0	5	31	3.1	
Police Post	172	17.8	1	92	9.3	5
Fire Protection	20	2.1		2	0.2	
Day care Center	15	1.5		7	0.7	
Primary School	9	0.9		5	0.5	
Secondary School	5	0.5		8	0.8	
Training Center	8	0.8		1	0.1	
Community Association	2	0.2		1	0.1	
Food Markets	17	1.8		9	0.9	
Other	0	0.0		49	4.9	
NO-RESPONSE	58	6.0		46	4.6	
<b>TOTAL</b>	<b>968</b>	<b>100.0</b>		<b>990</b>	<b>100.0</b>	

(9)

**ANNEX B**

**ENCUESTA SOCIO-ECONOMICA A RESIDENTES DEL PLAN DE VIVIENDA  
DE LUCHA DE LOS POBRES**

(La información recolectada es estrictamente confidencial)  
**UBICACION GEOGRAFICA**

Casa.....  
Manzana.....

**RESULTADO DE LA ENTREVISTA**

	No. de VISITA		
	1ra.	2da.	3ra.
Fecha (día/mes)			
Resultado*			
Cita (día/hora)			
* Entrevista Completa = 1      Entrevista Aplazada = 2			

**CARACTERISTICAS DEL ENTREVISTADO**

NOMBRE DEL ENTREVISTADO.....

EDAD: \_\_\_\_\_ (años)

RELACION CON EL JEFE DEL HOGAR \_\_\_\_\_

**ESTRUCTURA FAMILIAR**

No. TOTAL DE MIEMBROS DEL HOGAR \_\_\_\_\_

No. DE MIEMBROS MAYORES DE 12 AÑOS \_\_\_\_\_

No. DE MIEMBROS MAYORES DE 12 AÑOS QUE TIENEN TRABAJO  
REMUNERADO \_\_\_\_\_

SEÑOR /SEÑORA : LE VOY A HACER UNAS PREGUNTAS REFERENTES A ESTA VIVIENDA.
--

1. COMO SE ENTERO DEL PROGRAMA COOPERATIVA LUCHA DE LOS POBRES?

-----

2. CUANDO SE ASOCIO A LA COOPERATIVA?

mes..... ano.....

3. CUANDO COMENZO A CONSTRUIR SU VIVIENDA?

mes..... ano.....

94

4 CUANDO COMENZO A VIVIR EN SU CASA?  
mes..... año.....

5. CUALES FUERON LOS CUARTOS QUE TENIA INICIALMENTE LA CASA?  
(se puede anotar mas de una respuesta)

Baño .....1  
Cocina .....2  
Dormitorio .....3  
Sala (uso multiple)....4

6. COMO OBTUVO EL DINERO PARA INICIAR LA CONSTRUCCION DE SU CASA  
(Se puede marcar mas de una respuesta).

De los ingresos corrientes mensuales? .....1  
Recursos propios ahorrados ?.....2  
Prestamo BEV ?.....3  
Prestamo IESS?.....4  
Montepio? .....5  
Prestamo de un pariente? .....6  
Prestamo de una Cooperativa de ahorros .....7  
Prestamo de empresa donde trabaja.....8  
Prestamo de Mutualista? .....9  
A traves de la venta de un bien? .....10  
Otra?.....(especificar)

7. CUANTO FUE? O CUANTO GASTO PARA INICIAR LA CONSTRUCCION.....

8. REALIZO ALGUNA MEJORA EN LA CASA INICIAL?

si.....1 no.....2 (pase a p. 13.)

9. EN QUE CONSISTIO LA CONSTRUCCION QUE SE LLEVO A CABO?  
(se puede marcar mas de una respuesta)

1. Dormitorio	2. Baño
Construccion .....1.	Construccion.....1
Mejoramiento .....2.	Mejoramiento.....2
3. Cocina	4. Sala
Construccion .....1.	Construccion.....1
Mejoramiento .....2.	Mejoramiento.....2

10. QUIEN REALIZO LAS OBRAS ? (Se puede marcar mas de una respuesta)

Ud. y su familia? .....1  
Un albañil?.....2  
Parientes?.....3  
Amigos? .....4  
Un profesional (Ing, Arq.).....5  
Otro.....(especificar)

11. CUANTO GASTO USTED EN TOTAL EN LA AMPLIACION DE SU VIVIENDA ?

S/. \_\_\_\_\_

95

12. DE DONDE OBTUVO EL DINERO PARA LA AMPLIACION O MEJORA DE SU CASA ? (Se puede marcar mas de una respuesta).

- De los ingresos mensuales? .....1
- Recursos propios ahorrados ?.....2
- Prestamo de BEV .....3
- Prestamo del IESS.....4
- Montepio ?.....5
- Prestamo de un pariente?.....6
- Prestamo de una Cooperativa de ahorros ....7
- Prestamo de Mutualista?.....8
- Empresa donde trabaja?.....9
- A traves de la venta de un bien?.....10
- Otra?.....(especificar)...

13. UTILIZA PARTE DE LA VIVIENDA PARA ALGUNA ACTIVIDAD PRODUCTIVA TALES COMO:

- artesanía .....1
- pequeña industria.....2
- comercio .....3
- comercio y artesanía .....4
- comercio y pequeña industria ....5
- otras actividades .....6
- solo vivienda .....7

14. TIENE LOCALES (CUARTOS) ARRENDADOS?

SI.....1 NO.....2 (PASE A P.16)

15. CUANTO RECIBE EN TOTAL DE ARRIENDO ? S/. \_\_\_\_\_

16. DISPONE UD. DE VEHICULO ?

SI.....1 NO.....2

17. PARTICIPA UD. EN ALGUNA ORGANIZACION BARRIAL?

(Se puede marcar mas de una respuesta)

- Organización Barrial?... Cual?.....1
- Liga Deportiva?...Cual?.....2
- Padres de Familia..Cual?.....3
- No participa.....4
- Ninguna.....5
- Otra ?.....(especifique)

18. CUALES SON LOS PROBLEMAS MAS IMPORTANTES QUE EXISTEN EN LUCHA DE LOS POBRES ?

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96

19. DE LOS SIGUIENTES ASPECTOS, CUALES SON LOS TRES (3) PROBLEMAS MAS AGUDOS QUE UD. DETECTA EN ORDEN DE PRIORIDADES?

- Transporte Publico? .....1
- Agua Potable?.....2
- Iluminacion Publica?.....3
- Telefonos?.....4
- Recoleccion de Basura.....5
- Centro de Salud.....6
- Reten Policial.....7
- Bomberos.....8
- Guarderias Infantiles?.....9
- Escuelas.....10
- Colégios.....11
- Centros de Capacitacion.....12
- Asociaciones comunitarias.....13
- Abastecimiento de alimentos....14
- Otra.....15

(MARQUE SOLO 3  
RESPUESTAS)

-----  
Especifique

20. QUE NO LE GUSTA DE SU CASA? -----

21. QUE PLANES FUTUROS TIENE PARA CON LA CASA?

- ampliarla .....1                      venderla?.....2
- arrendarla.....3                      ninguno.....4

22. SU VIVIENDA ACTUAL ES :

- Propia.....0
- Arrendada.....1
- Gratis.....2
- Por servicios prestados.....3
- Otros (ej. Anticresis).....4

23. DE QUE MATERIALES SON LAS PAREDES DE LA VIVIENDA ACTUAL :

- ladrillo .....1    Hormigon.....2    Bloque.....3
- Tapia o adove....4    Madera.....5    Otro.....6

24. QUE MATERIALES PREDOMINANTES TIENE EN EL TECHO O CUBIERTA LA VIVIENDA ACTUAL?

- Eternit....1    Hormigon.....2    Zinc.....3
- Teja.....4    Paja.....5    Mixto.....6    Otro.....7

25. EL ABASTECIMIENTO DE AGUA DE LA VIVIENDA ACTUAL ES:

(se puede anotar mas de una respuesta)

- De red publica dentro de la vivienda.....1
- Grifo compartido.....2
- Acequia.....3
- Pozo.....4
- Vertiente.....5
- Captacion aguas lluvias.....6
- Distribucion por tanquero.....7
- De otras fuentes.....8

26.QUE DISPONIBILIDAD DE SERVICIO HIGIENICO (W.C) TIENE LA VIVIENDA ACTUAL?

Excusado de uso exclusivo de la vivienda.....1  
Excusado de uso comun.....2  
Letrina.....3  
Ninguno.....4

27.EL SISTEMA DE ELIMINACION DE AGUAS SERVIDAS DE LA VIVIENDA ACTUAL ES:

Por red publica de alcantarillado.....1  
Pozo ciego.....2  
Ninguno.....3

28.EI SERVICIO ELECTRICO EN LA VIVIENDA ACTUAL ES:

De red publica.....1  
De planta privada.....2  
Ninguno.....3

29.CUANTOS CUARTOS O PIEZAS EN TOTAL TIENE LA VIVIENDA ACTUAL?  
(no incluya cocina ni baño)

No. \_\_\_\_\_

SEÑOR/SEÑORA : A CONTINUACION LE VOY A HACER UNAS PREGUNTAS SOBRE LA CASA DONDE VIVIA ANTES DE VENIR A LUCHA DE LOS POBRES

30. SU VIVIENDA ANTERIOR FUE :

Propia.....0  
Arrendada.....1  
Gratis.....2  
Por servicios prestados.....3  
Otros (ej. Anticresis).....4

31. QUE MATERIALES PREDOMINANTES TENIA EN EL TECHO O CUBIERTA DE SU VIVIENDA ANTERIOR

Eternit.....1      Hormigon.....2      Zinc.....3  
Teja.....4      Faja.....5      Otro.....6

32.EL ABASTECIMIENTO DE AGUA DE LA VIVIENDA ANTERIOR ERA

De red publica dentro de la vivienda.....1  
Grifo compartido.....2  
Acequia.....3  
Pozo.....4  
Vertiente.....5  
Captacion aguas lluvias.....6  
Distribucion por tanquero.....7  
De otras fuentes.....8

df

33. QUE DISPONIBILIDAD DE SERVICIO HIGIENICO (W.C) TUVO LA VIVIENDA ANTERIOR

- Excusado de uso exclusivo de la vivienda.....1
- Excusado de uso comun.....2
- Letrina.....3
- Ninguno.....4

34. EL SISTEMA DE ELIMINACION DE AGUAS SERVIDAS DE LA VIVIENDA ANTERIOR ERA:

- Por red publica de alcantarillado.....1
- Pozo ciego.....2
- Ninguno.....3

35. EL SERVICIO ELECTRICO QUE DISPONIA EN LA VIVIENDA ANTERIOR ERA:

- De red publica.....1
- De planta privada.....2
- Ninguno.....3

36. CUANTOS CUARTOS O PIEZAS EN TOTAL TENIA LA VIVIENDA ANTERIOR (no incluía cocina ni baño)

No. \_\_\_\_\_

PREGUNTAS 37 A 44\_ HACERLAS CON REFERENCIA AL JEFE DEL HOGAR

37. EDAD DEL JEFE DEL HOGAR \_\_\_\_\_

38. DONDE VIVIA EL JEFE DEL HOGAR ANTES DE VENIR A LUCHA DE LOS POBRES?

- Ciudad de Quito.....1
- Resto del Pais Urbano.....2
- Resto del pais Rural.....3
- Extranjero.....4

39 TIENE PARIENTES EN EL BARRIO?

- SI.....1
- NO.....2

40 EN QUE TRABAJO U OCUPACION SE HA DESEMPEÑADO EN LOS ULTIMOS 6 MESES (el jefe del hogar)

-----  
No trabaja ..... 99 (PASE A P.44.)

41 EL TRABAJO DEL JEFE DEL HOGAR ES:

- Ocacional?.....1
- Permanente?.....2 (PASE A P. 43)

42 CUANTOS MESES TRABAJA AL AFG ?

\_\_\_\_\_ meses

43 HABITUALMENTE CUANTO GANA AL MES DE PROMEDIO ?

S/. \_\_\_\_\_

44 APROXIMADAMENTE CUAL ES EL INGRESO MENSUAL DEL TOTAL DE MIEMBROS DE FAMILIA ?

S/. \_\_\_\_\_

45. PARA TERMINAR LA ENTREVISTA NOS GUSTARIA SABER SU OPINION SOBRE EL PLAN COOPERATIVA LUCHA DE LOS FOBRES.

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OBSERVACIONES.....

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NOMBRE DEL ENTREVISTADOR.....

NOMBRE DEL SUPERVISOR.....

DIA.....MES.....AÑO.....

100

**ENCUESTA SOCIO-ECONOMICA A RESIDENTES DEL PLAN DE VIVIENDA SOLANDA**

(La información recolectada es estrictamente confidencial)

**UBICACION GEOGRAFICA**

Sector..... Manzana.....  
 Lote..... Tipo.....  
 Ubicación.....

**RESULTADO DE LA ENTREVISTA**

	No. de VISITA		
	1ra.	2da.	3ra.
Fecha (día/mes)			
Resultado*			
Cita (día/hora)			

\* Entrevista Completa = 1      Entrevista Aplazada = 2

**CARACTERISTICAS DEL ENTREVISTADO**

NOMBRE DEL ENTREVISTADO.....

EDAD: \_\_\_\_\_ (años)

RELACION CON EL JEFE DEL HOGAR \_\_\_\_\_

**ESTRUCTURA FAMILIAR**

No. TOTAL DE MIEMBROS DEL HOGAR \_\_\_\_\_

No. DE MIEMBROS MAYORES DE 12 AÑOS \_\_\_\_\_

No. DE MIEMBROS MAYORES DE 12 AÑOS QUE TIENEN TRABAJO REMUNERADO \_\_\_\_\_

**SEÑOR /SEÑORA : LE VOY A HACER UNAS PREGUNTAS REFERENTES A ESTA VIVIENDA.**

(si en preguntas 2 a 6 no sabe o no responde, anote 99)

1. COMO SE ENTERO DEL PROGRAMA DE VIVIENDA SOLANDA?

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2. CUANDO ENTREGO LA SOLICITUD DE INGRESO PARA EL PROGRAMA DE VIVIENDA SOLANDA?

mes..... año.....

3. CUANDO FUE ADJUDICADA LA VIVIENDA ?mes..... año.....

4. CUANDO LE ENTREGARON LA AUTORIZACION PARA OCUPAR SU VIVIENDA (ENTREGA DE LLAVES)?

mes..... año.....

5. CUANDO COMENZO A OCUPAR LA VIVIENDA ?

mes..... año.....

SI LA FECHA DE LA P.4 Y LA FECHA DE P.5 SON DIFERENTES,  
HAGA PREGUNTA No.6, CASO CONTRARIO PASE A PREGUNTA No.9

6. CUAL FUE LA RAZON PARA NO OCUPAR LA VIVIENDA, INMEDIATAMENTE  
QUE LE AUTORIZARON LA OCUPACION? (ESCRIBA TEXTUALMENTE)

7. ENTRE LA ENTREGA DE LA VIVIENDA Y LA OCUPACION DE LA  
MISMA, USTED PAGO ARRIENDO EN OTRA CASA ?

SI.....1 NO.....2 (PASE A P.9)

8. CUANTO PAGO DE ARRIENDO AL MES ? S/.\_\_\_\_\_

9. HA REALIZADO ALGUNA MEJORA EN LA CASA ?

SI.....1 NO.....2 (PASE A P. 15)

10. INICIO LAS MEJORAS ANTES DE OCUPAR LA VIVIENDA ?

SI.....1 NO.....2

11. CUALES FUERON LAS MEJORAS MAS IMPORTANTES (ESENCIALES) QUE SE TUVO  
QUE HACER PARA OCUPAR LA VIVIENDA. ?(se puede anotar mas de una  
respuesta)

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12. QUIEN REALIZO LAS OBRAS ? (Se puede marcar mas de una  
respuesta)

Ud. y su familia? .....1  
Un albañil? . .....2  
Parientes?.....3  
Amigos?.....4  
Un profesional (Ing.,Arq.)...5  
Otro?.....(especificar)

13. CUANTO GASTO USTED EN LA AMPLIACION DE LA VIVIENDA ?

S/.\_\_\_\_\_

14. DE DONDE OBTUVO EL DINERO PARA LA AMPLIACION O MEJORA DE SU CASA ? (Se puede marcar mas de una respuesta).

- De los ingresos mensuales? .....1
- Recursos propios ahorrados ?.....2
- Prestamo de BEV ?.....3
- Prestamo IESS .....4
- Montepio? .....5
- Prestamo de un pariente?.....6
- Prestamo de una Cooperativa de ahorros ....7
- Prestamo de Mutualista?.....8
- Prestamo de empresa en que trabaja.....9
- A traves de la venta de un bien?.....10
- Otra?.....(especificar)

15. CUANTO LE COBRA EL BEV ESTE MOMENTO DE COUTA MENSUAL POR SU VIVIENDA?

S/. \_\_\_\_\_

16. UTILIZA PARTE DE LA VIVIENDA PARA ALGUNA ACTIVIDAD PRODUCTIVA? TAL COMO :

- Artesania .....1
- Pequena industria.....2
- Comercio .....3
- Comercio y artesania .....4
- Comercio y pequena industria ....5
- Otras atividades .....6
- Solo vivienda .....7

17. TIENE LOCALES (CUARTOS) ARRENDADOS?

SI.....1 NO.....2 (PASE A P.19)

18. CUANTO RECIBE EN TOTAL DE ARRIENDO ? S/. \_\_\_\_\_

19. DISPONE UD. DE VEHICULO ?

SI.....1 NO.....2

20. PARTICIPA UD. O ALGUIEN DE SU FAMILIA EN ALGUNA ORGANIZACION BARRIAL COMO:

- Comite Pro-mejoras?.....1
- Cemus.....2.
- Cecoya.....3
- Liga Deportiva.....4
- No participa.....5
- Otra.....(Especifique)

21. CUALES SON LOS PROBLEMAS MAS IMPORTANTES QUE EXISTEN EN SOLANDA

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102

22. DE LOS SIGUIENTES ASPECTOS, CUALES SON LOS TRES (3) PROBLEMAS MAS AGUDOS QUE UD. DETECTA EN SOLANDA

- Transporte Publico? .....1
- Agua Potable?.....2
- Iluminacion Publica?.....3
- Telefonos?.....4
- Recoleccion de Basura.....5
- Centro de Salud.....6
- Reten Policial.....7
- Bomberos.....8
- Guarderias Infantiles?.....9
- Escuelas.....10
- Colegios.....11
- Centros de Capacitacion.....12
- Asociaciones comunitarias.....13
- Abastecimiento de alimentos.....14
- Otra ..... (Especifique)

(MARQUE AL MENOS 3 RESPUESTAS)

23. QUE NO LE GUSTA DE SU CASA? \_\_\_\_\_

24. QUE PLANES INMEDIATOS TIENE PARA CON SU CASA?

- ampliaria. ....1      venderla?.....2
- arrendarla.....3      Ninguno..... 4

SEÑOR/SEÑORA : A CONTINUACION LE VOY A HACER UNAS PREGUNTAS SOBRE LA CASA DONDE VIVIA ANTES DE VENIR A SOLANDA (Ref.al jefe del hogar)

25. SU VIVIENDA ANTERIOR ERA :

- Arrendada.....1
- Gratis.....2
- Por servicios prestados.....3
- Otros (ej. Anticresis).....4

26. QUE MATERIALES PREDOMINANTES TENIA EN EL TECHO O CUBIERTA LA VIVIENDA ANTERIOR?

- Eternit.....1      Hormigon.....2      Zinc.....3
- Teja.....4      Faja.....5      Otro.....6

27. EL ABASTECIMIENTO DE AGUA DE LA VIVIENDA ANTERIOR ERA:  
(se puede poner mas de una respuesta)

- De red publica dentro de la vivienda.....1
- Grifo compartido.....2
- Acequia.....3
- Pozo.....4
- Vertiente.....5
- Captacion aguas lluvias.....6
- De otras fuentes.....7

28. QUE DISPONIBILIDAD DE SERVICIO HIGIENICO (W.C) TUVO LA VIVIENDA ANTERIOR?

- Escusado de uso exclusivo de la vivienda.....1
- Escusado de uso comun.....2
- Letrina::::::::::3
- Ninguno.....4

29. EL SISTEMA DE ELIMINACION DE AGUAS SERVIDAS DE LA VIVIENDA ANTERIOR ERA:

- Por red publica de alcantarillado.....1
- Pozo ciego.....2
- Ninguno.....3

30. CUANTOS CUARTOS O PIEZAS EN TOTAL TENIA LA VIVIENDA ANTERIOR? (no incluya cocina ni baño)

No. \_\_\_\_\_

PREGUNTAS 31 A 37 HACERLAS CON REFERENCIA AL JEFE DEL HOGAR

31. EDAD DEL JEFE DE LA CASA : \_\_\_\_\_ (años)?

32. DONDE VIVIA EL JEFE DEL HOGAR ANTES DE VENIR A SOLANDA?

- Ciudad de Quito.....1
- Resto del Pais Urbano.....2
- Resto del pais Rural.....3
- En el extranjero.....4

33. TIENE PARIENTES EN EL BARRIO?

SI.....1 NO.....2

105

34. CUAL ES EL NOMBRE DE LA OCUPACION U OFICIO QUE DESEMPEÑA ACTUALMENTE EL JEFE DEL HOGAR ?

- Comerciante/vendedor.....1
- Artesano.....2
- Obrero.....3
- Servicios.....4
- Profesionales.....5
- No clasificados.....6
- Sin trabajo.....7

35. HABITUALMENTE CUANTOS MESES AL ANIO TRABAJA EL JEFE DEL HOGAR ?

----- meses

36. HABITUALMENTE CUANTO GANA AL MES (EL JEFE DEL HOGAR) ?

S/. -----

37. APROXIMADAMENTE CUAL ES EL INGRESO MENSUAL DEL TOTAL DE MIEMBROS DE LA FAMILIA QUE TRABAJAN?

S/. -----

38. PARA TERMINAR LA ENTREVISTA, NOS GUSTARIA TENER SU OPINION SOBRE EL PLAN DE VIVIENDA SOLANDA?

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OBSERVACIONES \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOMBRE DEL ENTREVISTADOR.....

NOMBRE DEL SUPERVISOR.....

DIA.....MES.....AÑO.....

**ANNEX C**

HISTORIA DEL PROGRAMA

DE VIVIENDA DEL

PLAN SOLANDA

Quito, Junio de 1988.

108

## I. INTRODUCCION.

Es una ciudadela concebida bajo características muy especiales por tratarse de un programa de vivienda subsidiada y que constituye un modelo urbano de Desarrollo Integral, bajo un sistema de construcción progresiva. El proceso de asentamiento es reciente y por lo tanto se encuentra en una etapa incipiente de organización social y formación comunitaria. Desde las inscripciones a la adjudicación de las viviendas transcurrieron 13 años que produjo un alto índice de deserción.

Este programa carece de una serie de servicios básicos, progresivamente se han ido consiguiendo con la participación de las organizaciones comunitarias.

## II. HISTORIA.

La Fundación "Mariana de Jesús" fundada el 6 de Diciembre-1939, es una entidad privada sin fines de lucro, basada en los principios sociales de la Iglesia Católica. Apoya el desarrollo social y comunitario de sectores poblacionales de bajos ingresos, trata de ofrecer un aporte global para la promoción integral del ser humano, el fortalecimiento de la estructura familiar y la participación comunitaria en la solución de sus problemas.

La Fundación Mariana de Jesús fue creada con la iniciativa y auspicio económico de la Sra. María Augusta Urrutia de Escudero, que donó una gran extensión de terreno a la Fundación para que se efectúe un programa de vivienda para familias de escasos recursos.

Para alcanzar estos objetivos la Fundación promovió la colaboración institucional de organismos afines, se firmó así un convenio en el que intervienen las siguientes instituciones:

Fundación Mariana de Jesús  
Junta y Banco Ecuatoriano de la Vivienda  
Agencia para el Desarrollo Internacional de los Estados Unidos A.I.D.  
Ilustre Municipio de Quito.

Instituciones que se comprometieron en la realización del "Programa Solanda".

### 2.1 OBJETIVOS:

Desarrollar un Programa de vivienda dentro del sistema denominado "Desarrollo Progresivo" a familias de bajos ingresos para permitirles el acceso a una solución de vivienda subsidiada por la Fundación y financiado por el Banco Ecuatoriano de la Vivienda. (1)

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(1) Funcionaria de la Fundación Mariana de Jesús.

## 2.2 REQUISITOS PARA ADQUIRIR VIVIENDA.

- Inscribirse en la Fundación Mariana de Jesús
- Presentar documento de información sumaria de no poseer vivienda en la provincia.
- Certificado de ingresos que no pase del sueldo en ese tiempo del básico
- Hoja de actualización de ingresos
- Certificación de cargas familiares
- Cédulas de identidad, tributaria y votación
- Partida de matrimonio
- Libreta de ahorro en el BEV con S/. 10.000,00 de ahorros - (actualmente de exige S/. 50.000,00) (2)

La primera selección la realiza la Fundación Mariana de Jesús luego las familias pasan al Comité de selección integrado por funcionarios del Banco Ecuatoriano de la Vivienda y de la Fundación Mariana de Jesús para decidir la adjudicación.

## 2.3 UBICACION:

El programa de vivienda Solanda está localizado en el sur - occidente de Quito, en la parroquia de Chillogallo.

Sus límites son: al norte con el escalón Solanda Norte (avenida) al sur con escalón Solanda Sur (avenida) al oriente la avenida Cardenal de la Torre y occidente avenida Teniente - Hugo Ortíz.

## III. PLANIFICACION DEL ASENTAMIENTO.

El programa de vivienda Solanda fue planificado para enfrentar en forma integral la situación de los sectores poblacionales de menores ingresos. Está planteado dentro del sistema denominado "Desarrollo Progresivo", es decir las viviendas crecerán desde la unidad sanitaria de 10 m<sup>2</sup>. pasando por la vivienda Piso-Techo y unidad básica de 18 y 24 m<sup>2</sup>., las viviendas de uno y dos dormitorios, hasta completar la vivienda de 4 dormitorios de 70 m<sup>2</sup>.

Es decir, se trata de dar acceso a familias de escasos recursos económicos para adquirir en propiedad una solución de vivienda y que puedan completar a través del financiamiento del Banco Ecuatoriano de la Vivienda.

Este programa fue planificado con 4 sectores. Dos sectores de 1.850 unidades y dos de 900 unidades aproximadamente, lo que da un total de alrededor de 5.600 viviendas entre unifamiliares y multifamiliares inicialmente, y el resto sería construido por la Fundación Mariana de Jesús o terceros.

Actualmente según datos del Banco Ecuatoriano de la Vivienda se ha construido 6.299 unidades o soluciones de vivienda.

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(2) Dirigente de Liga Deportiva Barrial Solanda.

10

### 3.1 LIDERES FORMALES.

"Los líderes reconocidos por la comunidad Solanda, son los dirigentes del Comité Pro mejoras, el mismo que se constituyó el 18 de enero de 1987, partiendo inicialmente en 1986 con las familias asentadas en el sector número 1, que fue el primero en poblarse y que debió enfrentar graves problemas al carecer de los servicios básicos" (3)

Los dirigentes de este comité fueron elegidos en elecciones directas y secretas. Los objetivos de su organización se orientan a conseguir los servicios básicos; agua, luz, vías de acceso, transporte, admeás de actividades socioculturales y deportivas.

"El Centro de Mujeres de Solanda, nace en el año de 1986 denominado inicialmente como Frente Femenino. En el año de 1987 se constituye en el CEMUS adquiriendo personería jurídica, sus dirigentes han realizado una importante labor coordinando acciones con el Comité Barrial y liga deportiva barrial de Solanda en la consecución de reivindicaciones comunitarias" (4).

La Liga deportiva Barrial Solanda a través de sus dirigentes y bases han aportado un importante contingente en el trabajo por la comunidad, agrupa 23 clubes filiales.

### 3.2 INSTITUCIONES QUE PARTICIPAN.

Las instituciones que participan en el "Programa Solanda" lo hacen a través de un convenio en el cual se define su instancia de cooperación.

#### 3.2.1. FUNDACION "MARIANA DE JESUS".

Tuvo a su cargo la planificación del proyecto urbanístico y el Plan social. Desde la iniciación del Programa en el año de 1970 recepta la suscripción de las familias solicitantes y su selección.

Donó al Banco Ecuatoriano de la Vivienda 72 hectáreas para la construcción de 5.600 viviendas, con el compromiso de transferir el terreno sin costo al adjudicatario.

Aportó 35 hectáreas para uso de la comunidad en áreas verdes, espacios deportivos y equipamiento comunitario.

#### 3.2.2 JUNTA Y BANCO ECUATORIANO DE LA VIVIENDA.

Tiene bajo su responsabilidad la planificación y construcción de las viviendas y las obras de in-

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(3) ... Dirigente del Comité Pro mejoras.

(4) Dirigente de l centro de Mujeres de Solanda.

111

fraestructura urbana.

El Banco Ecuatoriano de la Vivienda concede los préstamos a largo plazo a los adjudicatarios, - previamente seleccionados por la Fundación. Es la contraparte nacional para financiamiento de - la vivienda.

Financia la construcción de 4.500 viviendas con aportes propios y un préstamo garantizado por la A.I.D. de 20'000.000,00 U.S.

### 3.2.3 ILUSTRE MUNICIPIO DE QUITO.

Impulsa la dotación de red de agua potable y desfogue de alcantarillas.

Tiene bajo su responsabilidad la construcción de vías perimetrales y facilidades normativas.

### 3.2.4 AGENCIA PARA EL DESARROLLO INTERNACIONAL A.I.D.

Concede la garantía para un préstamo de 20'000.000 U.S. para el Banco Ecuatoriano de la Vivienda, para la construcción de las viviendas.

Brinda asistencia técnica y asesoría general al programa, para lo cual aporta 630.000 U.S. no reembolsables.

## IV. PROCESO DE CONSOLIDACION DEL PROGRAMA DE VIVIENDA SOLANDA.

"Desde que se inició el proceso de inscripción en la Fundación Mariana de Jesús en el año de 1972, luego del estudio socio económico y el proceso de selección, transcurrió un período muy largo para los solicitantes. Posteriormente las familias son remitidas al Comité de Selección, quien realiza otra investigación, pidiendo incluso la misma documentación". (5)

Desde 1972 a 1981 se habían inscrito 2.055 familias, de las cuales un alto porcentaje desertó por el prolongado tiempo sin recibir una respuesta concreta sobre la vivienda. "Esta demora de casi trece - años, se debe a problemas institucionales, fundamentalmente del Banco Ecuatoriano de la Vivienda en contrataciones, licitaciones y selección de varias compañías para la construcción, iniciándose ésta recién los primeros meses de 1985". (6)

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(5) Ex dirigente del Comité Central Pro mejoras de Solanda.

(6) Funcionaria de la Fundación Mariana de Jesús.

El sector número 1, comienza a poblarse recién a fines del año de 1986 y durante los primeros meses del año de 1987 se termina el proceso de asentamiento.

Las primeras familias que llegan a este sector, debieron enfrentar condiciones muy adversas por la falta de agua, luz, caminos de accesos, vías peatonales, veredas y transporte. Este sector se encontraba completamente aislado del resto de la ciudad.

Producto de este sin número de necesidades, el Comité Pro mejoras en febrero de 1987 consigue algunos servicios básicos y transporte, a través de dos líneas de buses y una buseta de Solanda a la Plaza Marín (Centro de la ciudad).

El segundo sector adjudicado es el número 3, que comienza a ser ocupado a mediados del año de 1987; contaba con servicios básicos entre ellos pavimentación, realizada por la compañía COVARPEM, en convenio con el Banco Ecuatoriano de la Vivienda.

"En el sector número 4, se ha pasado alrededor del 10% de las familias, debido a que las viviendas construidas corresponden al plan - Piso-Techo y se encuentran en proceso de construcción" (7).

Por último el sector número 2, con solución habitacional igual a la anterior, es el menos poblado, ya que recién se inicia el proceso de asentamiento. A la actualidad todas las viviendas construidas están adjudicadas por el Banco Ecuatoriano de la Vivienda.

#### 4.1 PROCEDENCIA DE LA POBLACION DE SOLANDA.

Según información conseguida en la investigación "Análisis e interpretación de resultado de la investigación socio-económica de los solicitantes de vivienda", realizada por el doctor Monje Rada, en agosto de 1984, del total de 4.446 familias investigadas, 2.762 provienen de otras provincias, - señalamos las más importantes:

PROVINCIAS	No. DE FAMILIAS.
Cotopaxi	435
Imbabura	359
Pichincha	305
Chimborazo	285
Loja	260
Tungurahua	259
Carchi	202
Bolívar	172

(7) Ex dirigente del Comité Pro mejoras de Solanda.

113

Este cuadro señala la homogeneidad desde el punto de vista geográfico de los solicitantes ya que provienen de provincias del corredor Andino.

#### 4.2 PROCESO DE CONSTRUCCION.

##### Tipo de Vivienda.

- 1 Unidad Sanitaria, lote con baño y cocina, es la unidad más sencilla, en lote de 61 m2. con 10 m2. de construcción; con proyección a crecer. Este tipo de vivienda se encuentra en los sectores 2, 3 y 4.
- 2 Unidad Piso-Techo, lote de 61 y 81 m2., con baño y cocina, con techo de hormigón y un cuarto de uso múltiple con cubierta de eternit, sin paredes laterales, con proyección a crecer.
- 3 Unidad básica con cubierta de eternit, lotes de 61 y 81 m2. con construcción de 24 m2. Consta de una habitación de uso múltiple, con cubierta de eternit, con proyecciones de crecer por la parte posterior, las paredes son de ladrillo o bloque.
- 4 Unidad Básica con Loza, lote de 61 y 92 m2. con área de uso múltiple, baño y cocina. Existe sólo en el sector número 1, esta vivienda tiene proyecciones de crecer, tiene techo de hormigón, sus paredes son de ladrillo o bloque.
- 5 Unidad Básica con Dos Dormitorios, es sólo un modelo para que se observe el crecimiento de la vivienda en la planta baja.
- 6 Vivienda Trifamiliar, o Departamento en propiedad Horizontal, consta de tres departamentos. El primero de planta baja con una habitación de uso múltiple, un dormitorio, baño cocina, patio interior, lavandería y un local comercial, su superficie es de 51 m2.

El segundo, es un departamento de dos plantas con 46 m2 de superficie.

El Tercero, se desarrolla en planta alta, en una superficie de 43 m2. Estas viviendas se encuentran localizados en los sectores 1, 2, 3 y 4.

- 7 Vivienda Trifamiliar con la sugerencia para realizar el crecimiento en los dos departamentos.

El primer departamento que se desarrolla en planta baja tiene una habitación de uso múltiple, un dormitorio, baño, cocina, patio interior, lavandería y un local comercial. Este no puede ser ampliado.

114

El segundo departamento, se desarrolla en planta alta y baja éste se puede ampliar en un segundo dormitorio, al igual que el tercer departamento que se desarrolla en planta alta.

- 8 Vivienda Puente, está ubicada sobre los pasajes peatonales, para impedir el acceso vehicular, está construido en segunda planta y tiene una habitación de uso múltiple, baño y cocina sin posibilidad de crecimiento. (8)

En el proceso de construcción se observa que las familias en su gran mayoría no respetan los estándares de construcción. Sólo aquellas que construyen con préstamos del Banco Ecuatoriano de la Vivienda, se sujetan a las exigencias impuestas por esta institución. No se respetan además las ordenanzas Municipales; las ampliaciones que debían construirse máximo en dos pisos; son sobrepasadas construyendo incluso hasta 3 y 4 pisos, tampoco se respetan los metros de frente para jardín y vereda.

En la construcción se usa predominantemente material sólido bloque, ladrillo, hierro y cemento. En aquellos modelos de vivienda con proyección se construyen dos y más pisos.

"La familia de menor ingresos, contratan albañiles y aportan con su trabajo para abaratar el costo de la construcción. Es frecuente encontrar propietarios de altos ingresos que contratan arquitectos y construyen casas de varias plantas, en muchos casos se aprecian que derriban las vigas y columnas originales desperdiciando recursos" (9).

"Este hecho confirma que el proceso de investigación y selección de los adjudicatarios no fue riguroso o se dió información falsa, pues las familias tenían ingresos mayores lo que es injusto ya que las familias verdaderamente de escasos recursos quedaron al margen de la vivienda" (10).

Como el Plan Solanda es un programa de vivienda convencional con una planificación urbanística y equipamiento comunitario, en el que intervienen varias instituciones, el Banco Ecuatoriano de la Vivienda es la entidad que concede los préstamos para ampliación a los adjudicatarios que lo solicitan de acuerdo a los ingresos y tipo de vivienda. Los montos van desde S/. 120.000,00 a S/. 280.000,00 con plazos de hasta 15 años.

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- (8) ALTUR CIA. LTDA., entidad privada que coordina el Plan Social Solanda.
- (9) Dirigente del CEMUS.
- (10) Dirigente del CEMUS.

115

## V. SITUACION ACTUAL DE SOLANDA.

### 5.1 ORGANIZACION:

Desde el punto de vista institucional, está estructurada a partir de la Fundación Mariana de Jesús. En el nivel superior con el Directorio de la Fundación se encuentra la Secretaría Ejecutiva; en una instancia inferior ALTUR, que es una entidad privada que coordina el Plan Social de Solanda junto a la coordinación general que está asentada en el Plan Solanda con funciones administrativas y técnicas.

En el nivel operativo encontramos a los facilitadores o responsables de los programas de áreas:

- Investigación Social
- Organización Social y Administrativa de la Comunidad
- Fomento y desarrollo económico y empleo
- Niño y Familia
- Salud
- Educación y Cultura
- Deporte y Recreación
- Servicios Públicos

### 5.2 SITUACION LEGAL:

Después de la adjudicación de la vivienda, las familias inician el proceso de escritura pasando por las diversas instancias institucionales. Una vez concretado este proceso y en posesión de las escrituras, el Banco Ecuatoriano de la Vivienda, procede a entregar las llaves.

Los dividendos son fijados en relación al costo de la vivienda y pagados en un plazo de 25 años, de acuerdo a lo ahorrado en la libreta que en la actualidad es de alrededor de S/. 250.000,00 dependiendo de la tipología, se define el monto del dividendo a 25 años.

"Si los adjudicatarios suspenden el pago del dividendo durante tres meses seguidos, el Banco Ecuatoriano de la Vivienda les llama la atención, no se han dado casos en que se les quite su vivienda" (11)

### 5.3 PROBLEMAS QUE ENFRENTA LA POBLACION.

Los dirigentes y líderes entrevistados, señalaron como los problemas más importantes los siguientes:

1. Transporte. Existen dos líneas de buses y una buseta que hacen el recorrido hasta la Plaza Marín, esta gestión fue realizada por el Comité Pro mejoras ante la Dirección de Tránsito. El servicio no abastece la de-

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(11) Dirigente del Secoya Sporting Club.

manda de la población en este sector que no tiene otras líneas para trasladarse al centro.

2. Recolección de Basuras. La población cuenta con este servicio sólo tres veces a la semana, los recolectores de basura transitan por las calles principales, las familias deben desplazarse a ellas.
3. Centro de Salud, hasta la fecha en el Plan Solanda no existe un Centro de Salud, los adjudicatarios deben trasladarse a unidades de salud ubicadas en barrios aledaños.
4. Guarderías, existe un Jardín de Infantes en convenio entre la Fundación Mariana de Jesús y Fe y Alegría. Niños de 5 a 6 años, total 70 niños, ambas corren con gastos de funcionamiento.

La Fundación Mariana de Jesús e INNFA firmaron una carta de intención en diciembre de 1986 para desarrollar un programa de atención a niños menores de 6 años. Se elaboró el proyecto respectivo, con una modalidad autogestionaria basada en componentes de microempresa. El convenio no fue suscrito, existe una gran demanda de la población por este servicio.

#### VI. CONCLUSIONES.

1. Los objetivos iniciales del Plan Solanda, en lo relacionado con permitir el acceso a la vivienda a familias de escasos recursos económicos, no ha sido alcanzado en plenitud. El largo proceso transcurrido entre la inscripción y la adjudicación de la vivienda, que superó una década, y en cuyo lapso se produjo una gran inflación que encareció la vivienda, no permitió el acceso a las familias más necesitadas.
2. A pesar de que este es un Programa de vivienda convencional planificado por una institución seria y que cuenta con el apoyo de otras entidades, el proceso de construcción no se sujetó a los estándares exigidos por la Ley.
3. Considerando que el programa facilita a los adjudicatarios el acceso a fuentes de financiamiento, el Banco Ecuatoriano de la Vivienda, existen otras utilizadas por las familias como el Instituto Ecuatoriano de Seguridad Social, y lo que es importante, en las familias de más bajos ingresos predomina el ahorro familiar y la minga para abaratar la construcción. Se observa un gran esfuerzo de los adjudicatarios para lograr ampliar sus viviendas, metas que van alcanzando progresivamente.

117

4. Siendo en una etapa incipiente de organización comunitaria, las organizaciones en corto tiempo han logrado impulsar un apoyo importante en la consecución de obras de infraestructura, sin embargo estas aún no están concluidas.
5. Por la dinámica alcanzada hasta este momento, en un futuro próximo las familias lograrán los objetivos de adquirir una vivienda definitiva y su infraestructura, este programa crecerá significativamente en población por las construcciones de tres y cuatro pisos que serán arrendadas a otras familias.

La organización comunitaria se nucleará en un solo frente y avanzará en el proceso de consolidación y autogestión. La Fundación Mariana de Jesús podrá retirar su asesoría - y el programa de vivienda continuará desarrollandose en manos de la comunidad organizada.

HISTORIA DE LA COOPERATIVA

DE VIVIENDA

"LUCHA DE LOS POBRES".

Quito, Junio de 1988.

## I. INTRODUCCION.

La cooperativa de vivienda "Lucha de los Pobres" es un asentamiento no convencional que se constituyó mediante una invasión de la Hacienda Santa Ana en el Sur Oriente de la ciudad de Quito. Sus objetivos fueron desarrollar un modelo de vivienda popular "ciudad modelo de los Pobres" para familias que no tienen acceso a vivienda a través de mecanismos convencionales. Los objetivos no fueron alcanzados, sin embargo estos pobladores lograron su vivienda que por otros medios no hubiera sido posible. El Estado y sus Instituciones colaboraron en esta iniciativa, dotando de infraestructura y servicios.

## II. HISTORIA DE LA CONFORMACION DEL ASENTAMIENTO "COOPERATIVA LUCHA DE LOS POBRES".

La cooperativa de vivienda Lucha de los Pobres, se conforma a partir de la Pre-cooperativa "Juan Montalvo" en el año 1982. Esta Pre-cooperativa organizó en ese año una invasión en la Inmaculada, barrio ubicado en el sur-occidente de Quito (junto a la Ecuatoriana) otro asentamiento espontáneo para posesinarse ilegalmente de esas tierras y distribuir lotes a 180 socios. Esta experiencia audaz y exitosa que inicialmente no tuvo una respuesta represiva del Estado, fue recogida por un grupo de dirigentes y socios de la misma Pre-cooperativa, "Juan Montalvo" para iniciar un proceso de organización con proyecciones mayores.

A fines del año 1982, tras sucesivas asambleas, estos dirigentes con una organización sólida, disciplinada, asesorada y conducida por un partido político de izquierda, el Frente Amplio de Izquierda FADI, dan nacimiento a la cooperativa de vivienda "Lucha de los Pobres", contando inicialmente con un centenar de socios.

En los primeros meses de 1983 la dirigencia de esta cooperativa, inicia los primeros contactos con la Sra. Archena Peñaherrera Perkins, propietaria de la hacienda Santa Ana, con el fin de negociar la compra de ella, propuesta que fue rechazada.

A partir de esta fecha la cooperativa y sus socios se organizan para invadir estas tierras. Simultáneamente se implementa una oficina en el centro de Quito, ofreciendo lotes de 180 m<sup>2</sup>. a S/. 35.000,00 para incrementar el número de socios.

### 2.1 OBJETIVOS.

El objetivo de la cooperativa de vivienda "Lucha de los Pobres" fue:

Desarrollar un proyecto de vivienda modelo, que se denominaría "Ciudad Modelo de los Pobres", para familias de bajos ingresos que carecían de posibilidades de acceso a unidades de vivienda mediante los mecanismos convencionales. Un modelo de vivienda económico con áreas comunales, complejos deportivos, servicios de abastecimiento, dotada de infraestructura, servicios básicos y transporte" (1).

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(1) Dirigente fundador de la cooperativa.

## 2.2 REQUISITOS PARA SER SOCIOS.

Originalmente se plantearon los siguientes requisitos:

- No poseer bienes raíces en la provincia.
- No pertenecer a otra cooperativa de vivienda.
- Tener un ingreso mínimo de S/. 5.000,00 (sucres)
- Aportar una cuota inicial de S/. 6.190,00 (sucres)
- Cancelar en el momento de asentarse en el terreno S/. 2.000,00 (sucres)
- Cancelar S/. 3.000,00 para gastos judiciales
- Aportar S/. 500,00 no reembolsables para material de oficina.
- Aportar S/. 500,00 mensuales para gastos administrativos.
- Ahorrar en libreta mensualmente de acuerdo a las posibilidades de cada socio.

En base a estos requisitos, durante los primeros 6 meses del año 1983 se produce una acelerada inscripción de solicitantes, llegando la cooperativa a seleccionar más de 500 socios. En este proceso de inscripción se realizaron sucesivas asambleas para planificar la invasión de la Hacienda Santa Ana.

## 2.3 UBICACION.

La ex-hacienda Santa Ana, hoy cooperativa de vivienda "Lucha de los Pobres", está ubicada en el Sur-occidente de la ciudad de Quito. Tiene una extensión de 127 hectáreas. Sus límites son: Al norte, quebrada que la separa del barrio "La Argelia", al sur, colinda con San Cristóbal, al Oriente, con el camino, denominado - "Los Incas" y por el Occidente la panamericana, Escuela Javier Salazar, fábrica Incasa y fábrica Levapan.

## III. PROCESO DE INVASION Y PLANIFICACION INICIAL DEL ASENTAMIENTO.

El día 21 de agosto de 1983, a las 20 horas en la panamericana sur y vía de acceso a la hacienda, se reunieron los 500 socios inscritos en la cooperativa.

Previamente habían planificado las acciones para proceder a invadir estos terrenos, "Cada socio inicialmente aportó una cuota de S/. 500,00 para trasladar madera, zinc y víveres con el objeto de levantar su vivienda provisionalmente y mantenerse en el lugar". (2)

Los 500 socios se acompañaron de sus familias, sumando aproximadamente 1.500 personas entre adultos y niños, se dividieron en grupos para comenzar a ascender a la parte alta de la hacienda.

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(2) Madre de familia del Programa No Convencional de atención al Pre-escolar, convenio Ministerio de Bienestar Social-UNICEF.

Cada grupo estuvo a cargo de un dirigente, todos tenían instrucciones precisas y una organización determinada para comenzar la ocupación.

"El primer grupo ocupó el sector de la parte alta, junto al acceso de la vía oriental, se procedió inmediatamente a desplazar las familias estratégicamente en puntos previamente determinados. El segundo grupo se asentó más abajo, ubicando a las familias en los límites oriente y norte del terreno. Los grupos siguientes fueron bajando de oriente a occidente y de norte a sur, hasta ocupar toda la hacienda" (3).

Inmediatamente se procedió a levantar las viviendas provisoriamente de madera y zinc, la mayoría utilizó plásticos para protegerse del frío.

La organización empezó a operar para la defensa de la ocupación, cada grupo construyó trincheras y túneles en su sector, se aprovisionaron de bombas molotov y piedras. Luego levantaron en las zonas más vulnerables plataformas de vigilancia o garitas que organizadamente eran atendidas por grupos de 4 socios que cada 3 horas eran relevadas.

Durante los dos primeros días, la organización creció en extensión y profundidad. "Esta invasión en una semana había logrado conseguir el apoyo de otras organizaciones populares de la capital y provincias y además aumentar considerablemente el porcentaje de sus socios, llegando hasta 3.000 asentados en el lugar". (4).

Al mes de esta ocupación, se habían conformado 36 distritos. Cada distrito agrupaba a 100 familias a cargo de un coordinador.

Desde agosto de 1983 a enero de 1984 el Ministerio de Gobierno había emitido 3 decretos de desalojo, sin embargo, nunca se produjo una acción de hecho, por la capacidad de negociación de los dirigentes de la cooperativa con la propietaria de la hacienda, que a su vez, medió con las autoridades del gobierno.

Antes del quinto mes de ocupación, desertaron alrededor de 1.500 socios por miedo a un desalojo, como había sucedido en diciembre de 1983, en otra invasión cercana a este sector, junto a la Ecuatoriana.

### 3.1 LIDERES FORMALES.

Los líderes reconocidos por los socios de la cooperativa, fueron los dirigentes que promovieron y participaron en la dirección de la invasión, los mismos que tenían una militancia y obedecían a una organización política, el Frente Amplio de Izquierda -FADI-.

Progresivamente en la acción misma surgieron nuevos líderes que fueron nombrados en las asambleas de la cooperativa como coordinadores de cada distrito.

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(3) Ex-dirigente de cooperativa.

(4) Idem.

122

El más alto nivel de decisión en la cooperativa estaba representado por el Presidente, asesorado por un Comité coordinador constituido por un coordinador de cada distrito.

En cada distrito se programaban actividades comunitarias así se logró trazar las calles, construir casas comunales en algunos distritos y ayudar a levantar las viviendas con madera, zinc, bloque y lodo a los socios. Una gran cohesión del grupo y fuertes lazos de solidaridad se manifestaban permanentemente en este período.

### 3.2 INSTITUCIONES QUE PARTICIPAN.

#### 3.2.1. EL MINISTERIO DE BIENESTAR SOCIAL.

A través de la Dirección de Protección de Menores fue la primera institución gubernamental que participó en esta cooperativa, a comienzos de 1984 inició sus acciones haciendo un diagnóstico para determinar las necesidades de la población pre-escolar.

En enero de 1984 se realizó un taller de capacitación a 45 madres y jóvenes de la cooperativa sobre contenidos de educación pre-escolar.

Actualmente se ejecuta un programa No Convencional de Atención a la Infancia con varias modalidades:

- 12 Hogares comunitarios infantiles que atienden a 180 niños de 0 a 5 años.
- 2 Centros comunitarios infantiles que atienden a 160 niños de 3 a 6 años.
- 1 Centro Hogar Comunitario Infantil con 80 niños de 0 a 6 años.
- 1 Taller de comunicación que implementa 1 periódico.
- 1 Biblioteca dotada de 120 volúmenes para estudiantes de colegio.
- 1 Tanquero para aprovisionar de agua potable a la población.
- 5 Parques infantiles. (5)

#### 3.2.2. MINISTERIO DE EDUCACION Y CULTURA.

En 1984 la comunidad construyó la escuela "Nicolás Guillén" de bloque, barro y zinc con capacidad para 300 alumnos, el Ministerio de Educación y Cultura pagó a 8 profesores.

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(5) Estas modalidades No Convencionales surgen en Ecuador en 1980 mediante un convenio de cooperación entre el Ministerio de Bienestar Social y UNICEF. Involucra componentes de salud, nutrición, estimulación sicosocial, protección social y participación comunitaria.

117

3.2.3. MINISTERIO DE SALUD PUBLICA.

En 1986 implementó un Sub-centro de salud con un médico que atiende 2 horas diarias, una auxiliar de enfermería y una auxiliar, funciona de lunes a viernes, dando atención de salud en prevención y curación. Capacitan a madres de familia y en casos de desnutrición suministran complemento alimenticio.

3.2.4. MUNICIPIO.

En 1986, en la administración del Alcalde Gustavo Herdoíza, se donó 8 aulas completas por un valor de S/. 16'000.000,00 que se suman a 6 aulas del Consejo Provincial de la administración del Dr. Fabián Alarcón, para la Escuela Nicolás Guillén que atiende actualmente a 450 niños.

El Municipio de Quito colaboró en la apertura de calles definitivas y al momento se está concluyendo el empedrado de ellas.

3.2.5. EMPRESA ELECTRICA.

Durante el año de 1986 ubicó 5 transformadores y ejecutó el tendido eléctrico desde la panamericana hasta la vía oriental, mediante el aporte de 5 millones del Congreso por gestión del Diputado del FADI y 5 millones aportados por la candidatura del Sr. Rodrigo Paz, actual Alcalde a fines de 1987.

En enero de este año el Diputado Nacional del FADI consiguió del Congreso S/. 4'500.000,00 para tendido eléctrico de la vía oriental hasta el camino de los Incas por el oriente.

3.2.6. DINADER.

A fines de 1986 implementó un área deportiva con canchas de fútbol, basquetbol, boleibol, indorfutbol.

3.2.7. DESARROLLO JUVENIL COMUNITARIO.

A partir de junio de 1987, implementa un proyecto de capacitación en Salud, pero que aún no se concreta en la práctica pues alcanza una cobertura muy reducida.

IV. PROCESO DE CONSOLIDACION DE LA COOPERATIVA.

Como asentamiento espontáneo cualquiera, cada socio ubicó su vivienda en un lote provisional después de 3 años la cooperativa procedió a redistribuirlos definitivamente.

134

La Distribución de los Lotes definitivos, se hizo en 3 etapas y por sectores, estos lotes se distribuyeron de acuerdo a los siguientes criterios:

- Antigüedad
- Tener ahorro mínimo de S/. 15.000,00
- Haber tenido una participación destacada en la organización
- Cumplir con el reglamento interno de la cooperativa
- Respetar la decisión del socio de quedarse en el lote original.

"Actualmente se encuentran ubicados en la cooperativa 2.496 socios con lotes de 180 mts. Existen además, lotes esquineros de 320 y - 350 mts. en posesión de socios privilegiados de la dirigencia" (6)

#### 4.1 PROCEDENCIA DE LA POBLACION ASENTADA EN LA COOPERATIVA.

Basándose en el diagnóstico realizado por la Dirección Nacional de Programas No Convencionales del Ministerio de Bienestar Social en agosto de 1987, el siguiente cuadro - refleja el lugar de procedencia de la población de este asentamiento:

Z	PROCEDENCIA
31.4	Loja
16.5	Cotopaxi
12.8	Pichincha
11.4	Bolívar
8.3	Chimborazo
4.1	Tungurahua
2.8	Azuay
2.8	El Oro
2.4	Imbabura
2.0	Los Ríos
1.4	Manabí
1.4	Guayas
1.4	Carchi
0.7	Cañar
0.3	Pastaza
0.3	Zamora Chinchipe

TOTAL: 100 Z

#### 4.2 PROCESO DE CONSTRUCCION.

La construcción de la vivienda, la realiza cada cooperado en ayuda mutua, de acuerdo a sus posibilidades económicas.

El Municipio de Quito no pone objeciones sobre los estándares de construcción, sin embargo, la única exigencia - dada en la cooperativa es tener 3 metros de retiro.

En la construcción predomina el bloque, barro y zinc; - aquellas familias que tienen acceso a fuentes de financiamiento formales y otras que lograron algunos ahorros

(6) Dirigente opositor al FADI.

por otros medios construyeron con hierro, cemento, bloque, levantando una segunda planta.

"Esta construcción se hace predominantemente con trabajo familiar contratando un maestro de la misma cooperativa, que cobra más barato que otros traídos de afuera". (7)

El mismo diagnóstico aplicado a una muestra de 300 familias nos entrega los siguientes datos:

a. El 80.3% del universo encuestado ha construido su vivienda de bloque, un 12% de las familias han utilizado predominantemente madera y el 6.4% mixta y el 3% otros materiales.

b. Modelos de vivienda.

Teniendo como referencia el mismo universo, el 82.2% de las viviendas construidas son mediaguas (vivienda de 1 cuarto de bloque, lodo y zinc) el 16.2% corresponden a viviendas unifamiliares (vivienda de más de 2 cuartos de bloque, cemento, eternit) y un 1.6% a departamentos (vivienda con dormitorios, sala, cocina).

c. Propiedad de la Vivienda.

El 95.7% es propia, el 1.4% es arrendada y un 2.9% corresponde a categoría otra (cedida, prestada, anticresis).

La cooperativa tomó contactos desde el año de 1987 con las Mutualistas Benalcázar y Pichincha además, con la cooperativa de ahorro y crédito San Francisco de Asís, al más alto nivel con el objeto de establecer convenios para el mejoramiento y construcción de las viviendas, contactos que no prosperaron por oposición interna en la cooperativa.

Según un dirigente de la cooperativa "El Banco Ecuatoriano de la Vivienda, es la institución que más ha ayudado a los socios con préstamos para mejorar la vivienda, existen alrededor de 300 socios que han obtenido estos préstamos". Sin embargo según este dirigente "a partir del 10 de junio el Banco Ecuatoriano de la Vivienda ya no concede préstamos". Los préstamos alcanzan montos hasta de S/. 280.000,00. Otra fuente de financiamiento lo constituye el ahorro familiar.

#### 4.3 ORGANIZACIONES COMUNITARIAS INTERNAS.

Si bien es cierto desde la invasión y los primeros meses de asentamiento el grupo del FADI generó una progresiva organización, teniendo como eje fundamental la reivindicación de la tierra, sin embargo, ésta ha ido perdiendo fuerza has-

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(7) Líder femenina del Programa No Convencional del Ministerio de Bienestar Social-UNICEF.

126

ta llegar a ser superada por un grupo opositor conocido como la "colonia lojana".

El 25 de octubre del año pasado se realizaron las elecciones, presentándose 3 listas:

Lista A conformada por dirigentes del FADI.

Lista B constituida por opositores, la colonia lojana.

Lista C representada por Ex FADI, militante de Liberación Nacional.

En estas elecciones triunfó la lista B con 367 votos, la lista A del FADI obtuvo el segundo lugar con 366 votos, y la lista C de Liberación Nacional 270 votos.

Actualmente en la cooperativa existen algunas organizaciones:

- Antigua Dirección de la cooperativa, constituida por miembros del FADI, desplazados de la dirección, en la última elección y que fueron los mentalizadores y organizadores de la invasión, están desgastados y con falta de credibilidad por parte de la mayoría de los socios.
- Frente de Reinvidicaciones y defensa de la cooperativa.
- Frente pro-desarrollo de la cooperativa
- Comité Pro Mejoras (colonia lojana)
- Liga deportiva barrial que agrupa 25 clubes de varones y 12 clubes de indor de mujeres.
- Taller cultural, constituido por jóvenes, cuya actividad ha perdido significación.

## V. SITUACION ACTUAL DE LA COOPERATIVA.

### 5.1. ORGANIZACION DE LA COOPERATIVA.

Producto de las elecciones de octubre de 1987 en la que la dirección del FADI es desplazada de la cooperativa y al unirse las dos listas opositoras, sin alcanzar la mitad más uno como lo establece el estatuto de la cooperativa, se produce un vacío de poder.

Sin embargo, que se hizo un intento de conformar la directiva entre miembros de las tres listas ante la Dirección Nacional de Cooperativas, esta situación no prosperó. Como consecuencia de esto y la falta de confianza de los socios de la cooperativa, la Dirección Nacional de Cooperativas - del Ministerio de Bienestar Social intervino la cooperativa de vivienda "Lucha de los Pobres" nombrando un interventor.

Desde octubre de 1987 a junio de 1988, se han nombrado 5 - interventores cuya función ha sido realizar una fiscalización de la cooperativa sin entregar a la fecha los productos esperados.

### 5.2 SITUACION LEGAL.

En 1984 producto de la negociación con la propietaria de la hacienda para evitar el desalojo, se hizo un contrato de compra-venta por S/. 110'000.000,00 con intereses del

127

22% anual.

En esa fecha se abrió una cuenta de ahorro en el Banco Caja de Crédito Agrícola, agencia del mercado Mayorista, cercano a la cooperativa. Cada socio viene depositando en esa cuenta sus ahorros, a la fecha se ha cancelado aproximadamente 75'000.000,00 que da un saldo de - S/. 35'000.000,00 más los intereses respectivos.

En 1985 la cooperativa convoca a concurso a 5 empresas - privadas para hacer el levantamiento topográfico y lotizar se selecciona a la Compañía INCOVIC. Esta empresa privada actualizó el plano anterior (hecho por el Centro Logístico del Ejército) y lo envió al Municipio para su aprobación - definitiva, se encuentra en trámite. (8)

Cuando se apruebe este plano la propietaria entregará la - escritura global a la cooperativa y luego se entregarán - las escrituras individuales a los socios previa cancelación de sus respectivos lotes.

Actualmente solo hay títulos de propiedad provisionales - que lo acredita la dueña. Los socios poseen además la minuta para hacer la escritura y el acta concedida por la familia Peñaherrera y la Dirección de Cooperativas. De allí existen los 2.496 lotes adjudicados en base a este procedimiento.

### 5.3 PROBLEMAS QUE ENFRENTA ESTA POBLACION.

Los dirigentes y familias entrevistadas señalan como necesidades prioritarias que requieren urgente solución:

1. Agua potable, el abastecimiento lo hace un tanquero donado por el Ministerio de Bienestar Social, para 2.496 familias. Se han realizado estudios de pre-factibilidad para proveer agua de vertientes que existen por parte del Municipio e INCOVIC.
2. Alcantarillado, las aguas servidas son eliminadas - anárquicamente por la población, generando un grave problema de salubridad.
3. Recolección de basura. Existen focos de contaminación por la eliminación de basuras en cualquier lugar originando enfermedades en la población infantil.
4. Transporte. Existen 4 camionetas y una buseta que - cobran S/. 20,00, estos medios de transporte operan sin autorización de la dirección de tránsito. Se han realizado gestiones ante la Dirección de Tránsito para conseguir una línea de la cooperativa al centro de la ciudad, así se logró iniciar 2 líneas de recorrido con la cooperativa Teniente Ortíz y Guamán, que se - retiraron por la destrucción de la vía de acceso a la cooperativa.

128

VI. CONCLUSIONES.

1. Los objetivos iniciales de la cooperativa de desarrollar un proyecto de vivienda modelo, "ciudad modelo de los Pobres" dotada de infraestructura con servicios básicos, casas comunales, complejos deportivos, servicios de abastecimiento, transporte; lo que actualmente es inalcanzable. Los objetivos no fueron cumplidos, sin embargo, la gente - logró su vivienda, lo que en otras circunstancias no era - posible, además en 5 años el proceso de consolidación del asentamiento es significativo.
  
2. Teniendo en consideración que este es un asentamiento informal, que accedió a las tierras mediante un proceso de - invasión a través de una conducción política y cuya proyección era obtener vivienda para sus socios "ciudad modelo de los Pobres", terminó doblegada porque la dirigencia de la - cooperativa no pudo conducir este proceso, cayendo en procedimientos poco honestos (proselitismo, tráfico de influencias) que progresivamente fue desgastando su base de apoyo.

La distribución de lotes, el acceso a fuentes de financiamiento, debió ser asumida individualmente por los socios, - incluso la negociación y pago de la tierra.

3. A pesar de que las familias no contaron con fuentes formales de financiamiento, los mecanismos desarrollados anteriormente en la comunidad ayudaron al proceso de consolidación del asentamiento, el mismo que es significativo pues en 5 años hay logros importantes en infraestructura y construcción de las viviendas.
  
4. Desde su inicio, este asentamiento logró captar la participación de entidades gubernamentales en acciones concretas - y sentidas en la comunidad, las mismas que se plasmaron en obras de infraestructura: empedrado de vía, luz eléctrica, transporte, escuela y servicios: educación escolar y preescolar, atención de salud, deporte, recreación.
  
5. La dinámica de esta cooperativa de vivienda se encuadrará dentro de los marcos legales de estos asentamientos formales en su lucha reivindicativa.

En la organización comunitaria se proyecta una tendencia menos politizada y orientada a la consecución de obras para la cooperativa.

Esta tendencia se consolidará progresivamente, pues recoge las aspiraciones de la mayoría de la población. Simultáneamente desaparecerán los grupos minoritarios que no ofrecen salida al problema de atomización organizacional.

En materia de infraestructura, dentro de los próximos 5 - años la cooperativa tendrá concluido el empedrado de la - vía principal, tendido eléctrico, espacios comunales e iniciará la canalización.

El proceso de construcción se consolidará predominando la construcción sólida definitiva.

121