LAC Housing and Urban Upgrading Assistance Retrospective

Honduras and Ecuador, 1980–2005

June 28, 2005
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Prepared for
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United States Agency for International Development

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Preface

USAID's Urban Programs Team in the Agency's Office of Poverty Reduction (PR/UP) contracted with RTI International to carry out the Housing and Urban Upgrading Retrospective. This retrospective was intended to find some of the original beneficiaries of slum upgrading and housing projects in Ecuador and Honduras and to examine both the project-level impact on individual households' asset building capacity and the sustainability of these programs. The RTI team brought to this retrospective:

- A talented, experienced team led by a Senior Housing Finance Specialist, Mr. Claude Bovet; and two experienced and knowledgeable field survey managers, Mr. Renán Larrea and Mr. Sigifredo Ramirez, who led the survey activity in Ecuador and Honduras respectively. Our field survey managers were supported by two local survey groups: Medios CAP in Ecuador and Universidad Técnica (UNITEC) in Honduras. All were intimately familiar with USAID, the Housing Guaranty Program, and the projects that were implemented in both countries. They were supported by technical manager Mr. Stephen Pereira at the home office and Ms. Amy Mulcahy-Dunn for the design of the questionnaire.
- Resident field advisors with well-established working relationships with key local institutions, supported by two local survey groups with prior experience in such surveys.
- A technical approach built on the reality of the Integrated Shelter and Urban Development Project in Quito, Ecuador; and the Honduras Shelter for the Urban Poor and Urban Upgrading Project in Tegucigalpa, as well as on the prior experiences of the team.
- Corporate experience and networks throughout Latin America, including these two countries, on which the project team was able to draw.
- An implementation plan and a process for securing timely and accurate quantitative and qualitative information for reporting purposes.

Executive Summary

The three Housing Guaranty (HG) programs covered in this retrospective were designed with the following objectives: (1) to assist the counterpart governments in Ecuador and Honduras to plan, develop, and implement programs of shelter solutions for their urban poor resulting in quality of life amelioration, poverty alleviation, and asset building for them; and (2) to focus the government's role as a facilitator of these programs and to ensure their sustainability and replicability over time.

The reviewed HGs all shared an extremely comprehensive agenda, which included:

- Secure, titled property ownership
- Adequate and affordable shelter for the very poor and lower-income families
- Financing on a leveraged basis
- Loans to beneficiaries and utilities fees on a recoverable basis
- Strengthening of government institutions (Banco Ecuatoriano de la Vivienda 518-HG-005 in Ecuador; and Instituto de la Vivienda 522-HG-005 and Municipalities 522-HG-006 in Honduras)
- Private sector participation
- Community interaction and social development programs, emphasizing households headed by women
- Family improvements in income, asset accumulation, education, employment, health, recreation, and general quality of life
- All social, legal, institutional, financial, planning, zoning, construction, and interdisciplinary coordination
- Program replicability.

The first component of this retrospective, "USAID-HG Impact on Program Beneficiaries," illustrates the success of the HG programs in fulfilling objective (1) above. Program beneficiaries not only obtained adequate and affordable shelter solutions at the outset, but also over time, within their ameliorating urban community environment, very noticeably improved their physical homes, family wealth, and earnings potential, as well as their safety, social, educational, health, cultural, and recreational conditions. In this regard, the HG programs very definitely fulfilled their expectations.

The second component, "USAID-HG Country Development Assistance Impact," cautions that whereas the programs were eminently successful in marshalling counterpart governments, their relevant implementing agencies, collaborating nongovernmental organizations, and organized beneficiaries themselves, they nonetheless fell short of the ultimate goal of objective (2), namely program replicability. Whereas the financial arrangements and physical infrastructure developed remain sustainable within market forces, the actual replicability of the programs is another story. It is recognized that USAID's initiative and execution support played a crucial role in the viability and success of the programs. Replication in these and other countries, while feasible under the same circumstances of USAID support, becomes questionable when such support is lacking.

The retrospective ends with a summary of general, specific, and replicability lessons learned.

USAID-HG Impact on Program Beneficiaries

Ecuador

Program Results for Beneficiaries

An analysis of USAID's 518-HG-005 Program goals, purpose and results is contained in the "USAID HG Country Development Assistance Impact" section of this report. Its overall objective was: "The establishment and operation of a new Government of Ecuador system for planning, coordinating, financing, and implementing comprehensive programs that serve the (*housing*) needs of the Ecuadorian urban poor." Its specific goal was the development of the Solanda program, an integrated shelter and urban project comprising "4,500 low-cost housing units, complementary physical and social infrastructure, an employment/training program to increase the productivity and income of the urban poor target group, and community organization."

For this retrospective, a survey of 98 original beneficiaries continuing to reside in the Solanda development was conducted to determine the results and impact of this HG program. These are summarized hereunder; the full results appear in the country reports included as Annexes I and II; the questionnaire used to interview respondents in both countries appears in Annex III.

Community Environment and Services

The Solanda program was developed on 158.14 ha (1,581,333 m²) of undeveloped land donated by a private landowner to the not-for-profit Fundación Mariana de Jesús (FMJ), of which 864,783 m² were applied to the urbanization proper, including 103,674 m² for community services and 139,192 m² for athletic and green spaces.

Distinguishing features of the Solanda community today are:

- Whereas the HG project called for 4,500 housing units, in the end, 6,211 units were built.
- Solanda has grown from an initial resident population of between 15,000 and 18,000 to one of approximately 80,000.
- It is recognized as an integrated full-service "village" community, with all necessary urban utilities; transport services; fire, police, and postal services; health and educational facilities; green spaces and athletic and recreational facilities; and a broad range of established neighborhood and larger commercial businesses, all of which are within walking distance.
- It is estimated that 80% to 90% of the original beneficiaries continue to live in Solanda. Community life and personal interrelations are considered strong.
- It has an influential Central Committee composed of residents, currently with a woman president.
- Its environment encourages and aids economic growth and family-wealth improvement.

- All local streets and avenues are fully paved, with adequate sidewalks and lighting scheduled for upgrading. However, pedestrian accesses within super-blocks[1] are being allowed to deteriorate through lack of maintenance by their residents. Potable water and sewerage utilities meet standards and reach every unit in Solanda, as do electrical, telephone, and TV connections. Thrice-weekly garbage collection also reaches every unit. Ten bus lines ply to and from Solanda. Quito's electrical trolley-bus service, running from 05:30 to 24:00 hours on normal days, connects Solanda to every point of the city with a single ticket also valid on a network of connecting bus lines.

Among Solanda's many other urban advantages, the following stand out:

- More than 18 day care centers, kindergartens, and primary schools
- Eight high schools
- One college-level institution and one adult education center
- Two churches
- Four community centers
- Four health centers and private clinics
- One each of dedicated police and fire stations
- Post office facilities

Commercial businesses include:

- An impressive number of family-owned businesses and small neighborhood stores
- A number of commercial stores, principally concentrated on a couple of major arteries, including one that has become a major commercial center
- One public local market and, adjacent to Solanda itself, Quito's wholesale producers market
- One principal supermarket chain (Super-Tía) store

Public and recreational spaces include:

- A large nature park
- A neighborhood stadium
- Several football fields and recreational spaces
- Neighborhood parks, illuminated fountains, and landscaped avenues

[1] "Super-blocks" are city blocks whose living units are built on the street-side perimeters (i.e., on the outer edges of the block) and enclose an inner, protected recreational area. Street access to these inner courts is provided by pedestrian walkways, over which are built so-called "bridge units."

Photo 1. Panoramic view of Solanda development

Photo 2. Trolley-bus system, Avenida Hugo Ortiz, east of Solanda

Photo 3. Secondary street beside a park, Solanda

Home Improvements and Additions

The 6,211 shelter units as built and sold covered 223,259 m² for an average of 36 m² per unit. There were several different models: 2,002 units were of the Floor & Roof type with 24 m² per unit, and 622 units were of the Sites & Services type with 12 m² per unit. All have been substantially improved, with the 98 survey respondents reporting additions to their units as follows:

- 9% increased the size of the ground floor
- 4% added a floor
- 58% added two floors
- 25% added three floors
- 4% added four floors

Exhibit 1 illustrates the number of cases where floors were added.

Exhibit 1. Summary of unit expansion in Solanda

Reference Period	No. of Floors	No. of Cases	% Change
Original			
	0	33	33.70
	1	58	59.20
	2	7	7.10
Current			
	0		
	1	13	13.30
	2	57	58.20
	3	24	24.50
	4	4	4.10

Note: “0 floors” reflects Sites & Services.

Photo 4. Catholic church

Photo 5. María Augusta Urrutia Coliseum

Photo 6. Stadium and soccer field

Photo 7. Panoramic view, nature park

Corner units are original; arrows indicate those built up

Photo 8. Basic units

Central unit is original; arrows indicate those built up

Photo 9. Two-family solutions

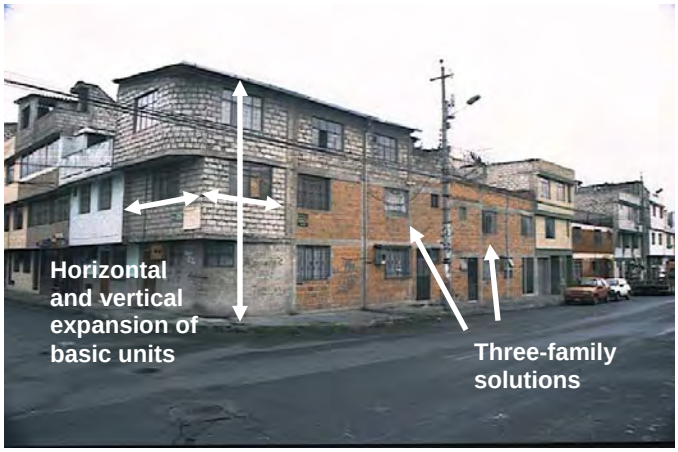


Photo 10. Multi-family solutions

Whereas it was anticipated that buyers of Floor & Roof and of basic units would by necessity improve upon and add to their units, the above reported additions indicate a much greater level of additional construction. For Solanda as a whole, the current estimated constructed area is 601,416 m², representing a 169% increase over the original 223,259 m² built.

An interesting observation relates to public acceptance of the Floor & Roof units. At the beginning they were criticized as being a totally inadequate shelter condemned to immediate destruction and therefore only attractive to a relatively higher-income buyer looking to cheaply acquire the urbanized lot on which they sat. But comments from the focus group and the practical results obtained confirmed otherwise. These solutions were among the most sought after by the poorest applicants, because (1) they provided secure title on an otherwise unaffordable lot; (2) they provided immediate shelter from inclement weather; (3) they covered a larger surface, thereby providing shelter to a larger family group; (4) walls could be erected easily using temporary materials obtainable at practically no cost from very elementary or discarded materials; and (5) as family income improved, more substantial construction could be addressed with only the roof being demolished, if that. Confirming this preference, 58% of the surveyed families purchased a Floor & Roof unit at an average price of US$1,526 (in nonadjusted dollars).

Survey respondents indicated that 69% of them completed their additions and improvements during the two years following their taking up residency.

Family Wealth and Assets

Wealth accumulation through appreciation of their homes by individual original beneficiaries (given the range and timing of subsequent investments in improvements and additions) is difficult to determine. However, it is estimated that by now the mortgage loans of original beneficiaries have been either paid off or amortized to minimal amounts and one could thus approximately estimate the net worth increase in their homes over the life of the project as follows:

	Beginning	Current
Housing area in m²	223,259	601,416
Construction costs per m²	$90	$180
Total value of constructed area (in $000s)	$20,150	$108,255
Net urbanized area in m²	389,474	389,474
Development costs per m²	$40	$70
Total value of urbanization (in $000s)	$15,598	$27,263
Invested net worth on initial construction (in $000s)	$35,748	
Invested net worth on current construction (in $000s)		$135,518
Increased net worth (in $000s)		$99,770
Increased net worth as a percentage		279%

Photo 11. Uninhabited Floor & Roof solution

Photo 12. Floor & Roof solutions

Photo 13. Floor & Roof solutions

Photo 14. Bridge-type expansion (commercial establishment)

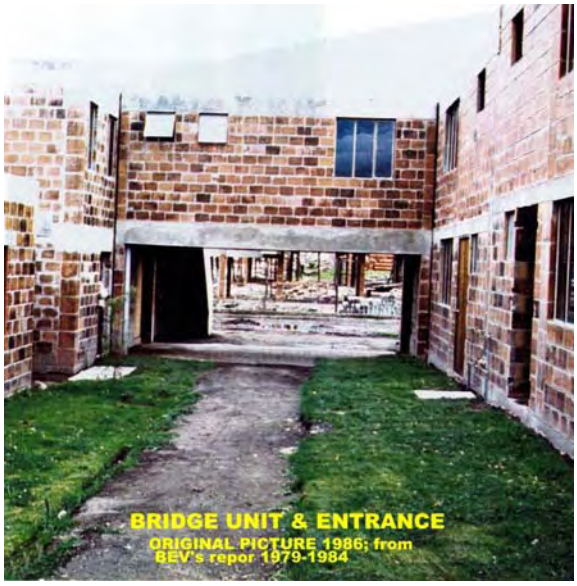


Photo 15. Bridge unit and entrance to courtyard, 1986

Photo 16. Expansion of single-family Floor & Roof solutions

The above would indicate an average replacement value for the 6,211 units built, net of land values, of US$52,000 per unit. However, when the survey respondents were asked to estimate the current market value of their properties, 30% replied their homes were worth between US$40,000 and $50,000; and 28% estimated the market value of similar properties to be between US$20,000 and $30,000.

Together with the increases in rooms and living spaces, families have been increasing their ownership and use of major appliances, among other domestic furnishings and wares, all of which is indicative of increasing economic well-being. The increase in ownership of these appliances by families is as follows:

	From	To
Refrigerators	67%	91%
Microwave ovens	0%	43%
Washing machines	3%	47%
Vacuum cleaners	3%	27%
TV units (some now with more than 1)	90%	99%
Videocassette recorders	8%	56%
Bicycles (some now with up to 4)	34%	56%
Computers (some now with up to 2)	1%	33%

Originally 14% of families had cars. Now 34% of families own one. For the rest, one of the attractions of Solanda, apart from excellent public transport available, is their availability to access their usual internal destinations on foot.

Home/Business Use

Although the survey sample shows that 28% of families were renting out a store space, it is estimated that at least 40% of all buildings have installed commercial businesses, whether run by the homeowners themselves or on a rental basis.

Among the survey group, only 6 family members participated in a home business at the outset; this has now grown almost fourfold to 29. Among those families with a personal business outside the home proper, 12 members were employed at the outset and remain basically stable at 19.

Typical activities for home/businesses are: bazaars, neighborhood stores, food stores, ice-cream counters, bakeries, hairdressers, music stores, and stationery stores.

Family Income and Poverty Alleviation

The survey sample also provides other parameters of improving family economic conditions, over and above their increased real-estate wealth.

Rental income – 21% of families rent out between one and four rooms to third parties, for which they receive monthly rents of between US$30 and US$240.

Employment – Originally 80% of household heads and 73% of spouses held regular employment. These percentages have now dropped to 57% of household heads and 45% of spouses, partly because of retirement age, but also because of an important increase in self-employment. Surveyed families reported the following increases in employment monthly income (in 2005 adjusted dollars) over the life of the project:

	From	To
Less than US$200 – Household heads	55%	21%
Less than US$200 – Spouses	78%	60%
More than US$200 – Household heads	45%	79%
More than US$200 – Spouses	22%	40%

Of those reporting monthly income of more than US$200, 13 household heads and 5 spouses were making over $500, whereas none were making more than $500 at the outset (with only one spouse earning more than $400). This is illustrated in Exhibit 2.

Exhibit 2. Reported monthly income of household heads and spouses

	Household Head		Spouse (Family Member 1)	
Monthly Income (in US$)	**No.**	**%**	**No.**	**%**
Original				
Less than 100	2	18.20	17	60.70
100 – 200	4	36.40	5	17.80
200 – 300	2	18.20	4	14.30
300 – 400	3	27.20	1	3.60
400 – 500			1	3.60
500 – 700				
700 plus				
Current				
Less than 100	3	4.30	7	16.70
100 – 200	12	17.10	18	42.90
200 – 300	21	30.00	7	16.60
300 – 400	13	18.60	5	11.90
400 – 500	8	11.40		
500 – 700	11	15.60	4	9.50
700 plus	2	2.90	1	2.40

Reported income for other family members is shown in Exhibit 3. These are mostly sons and daughters, and their increased number reflects their inclusion as income earners as they have grown up.

Exhibit 3. Reported income for other family members

Monthly Income	Member 2		Member 3		Member 4	
	No.	%	No.	%	No.	%
Original						
Less than US$ 100	3	100.00	1	100.00		
100 – 200						
200 – 300						
300 – 400						
400 – 500						
500 – 700						
700 plus						
Current						
Less than US$ 100			3	14.00		
100 – 200	17	44.60	11	49.80	1	16.70
200 – 300	13	34.20	6	27.20	4	66.70
300 – 400	3	7.80	1	4.50	1	16.70
400 – 500			1	4.50		
500 – 700	2	5.30				
700 plus	2	5.30				

Business income – Originally 10 household heads and 6 spouses owned businesses, whereas 23 and 20 respectively do so now. Of the current 43, 28 run their businesses at home.

Monthly incomes for this group were reported as follows:

	From	To
Less than US$200 – Household heads	44%	21%
Less than US$200 – Spouses	80%	70%
More than US$200 – Household heads	56%	79%
More than US$200 – Spouses	20%	30%

Of those reporting monthly income of more than $200, 13 household heads were making over $500, whereas 6 were doing so at the outset.

Gender

Household heads, the majority being men, traditionally have been the principal breadwinners for the interviewed families. But more and more, women are becoming important contributors to the families' economy. The "focus groups" conducted as part of this retrospective reported that borrowing agreements with the Banco Ecuatoriano de la Vivienda (BEV) to fund down payments on homes were all entered into by the spouses. Currently, as household heads begin to reach pension/retirement age or advanced age, it is their spouses that are picking up the slack in terms of income, both

through personal employment and through the ownership and operation of their own businesses.

Exhibit 2 above, on monthly income, showed not only that the number of women employed has grown from 28 to 42 (a 50% increase), but also that their individual monthly incomes have also grown impressively. Whereas originally 60% of employed women earned less than US$100 a month, now 24% earn over $300, including 12% who earn over $500.

Exhibit 4 also shows impressive growth in the number of businesses owned by women, from 6 originally to 20 now (a 230% increase).

Exhibit 4. Number of businesses owned by women

	Household Heads		Spouses	
Location of Owned Business	**No.**	**%**	**No.**	**%**
Original				
At home	4	36.40	2	33.30
In the neighborhood	3	27.20	2	33.30
In town	4	36.40	2	33.30
Out of town				
Current				
At home	11	47.80	17	85.00
In the neighborhood	3	13.00	1	5.00
In town	8	34.80	2	10.00
Out of town	1	4.30		

Just as noticeable is the increasingly involved and influential role of women in neighborhood issues and community development, exemplified among other activities by their direct participation on the board of the quasi-municipal Central Committee, currently led by a woman president.

Family Welfare: Social, Health, Educational, Cultural

Solanda is currently administered by the Solanda Central Committee, which is popularly elected. Its elected president, Mrs. Nube Rivera, also owns property in a more affluent Northern Quito district and it is illuminating to register her reasons for living in Solanda, as follows: “because people here (Solanda) are not stuck in their houses, they live outward…. They are more spontaneous and there is a [lively] community environment; on the other hand, in Northern Quito people lock themselves in their homes and don’t go out, they go indoors early and don’t bother to get to know their neighbors…. Here I am with more friends and can be of greater use.”

Photo 17. Family store

Photo 18. Family store

Photo 19. Commercial zone, José María Alemán ("J") Street

Photo 20. “J” Street commercial zone

Photo 21. Market facility

Photo 22. Supermarket (chain store)

The attractiveness of Solanda as a destination settlement is further illustrated by the following responses given by surveyed beneficiaries when asked, “Why did you come to live in Solanda?”

- Solanda has everything
- Because of its public spaces
- Because of its nearness to every type of community facility
- In Solanda you can make friends and talk with people
- It is a good place to establish a business
- You need not leave Solanda
- Commerce is open until 10 p.m. and when I return from work I can still go shopping and put fresh bread on the table
- It is Quito’s Southern neighborhood with the best transportation services
- I can go out to play sports on weekends
- Closeness to educational and athletic facilities
- Community life

Further direct examples of responses received are:

- Mr. P.A. – a very proud resident of Solanda and deeply knowledgeable of the area history: “This neighborhood is unique in Ecuador and there are only five like it in Latin America where poor people live better than many rich ones.”
- Ms. M.Ch. – a resident who sees her history in Solanda’s sidewalks, parks and meeting places: “This is our own home. Neither before, and now even less, would we decide to leave Solanda; it is the culmination of what we fought for.”
- Ms. R.G. – “People who come to live in Solanda do so because of its basic services, because here exist all the facilities (wholesale market, transport, green spaces, commerce).” She adds, “We people who live here have no need of a car and that represents a great saving.”
- Focus group – Considered that new residents are (also) attracted because of the good possibilities of doing business.

The 98 households surveyed were all original beneficiaries and initial residents in Solanda. These households comprised 397 members, for an average family component of just over 4 members. Household heads were 90 men and 8 women.

Social – Interaction with neighbors has been and continues to be a distinctive feature of the Solanda community. This is actively promoted in church, cultural events, and athletic activities, as well as in community center activities and by the resident-oriented Central Committee.

Health – In general, Solanda’s population reports good health, with only sporadic cases of bad health or serious illness. Of the surveyed population, 28% of household heads and 37% of spouses admitted to having been ill, mostly from short-duration flu and digestive problems, both of which are typical in Ecuador. When needed, most cases are dealt with

in Solanda's own health centers, clinics, and doctor's offices. Only the more serious cases requiring specialized treatment need go beyond Solanda.

Education – Household heads and their spouses basically shared the same educational opportunities, 34% and 29% respectively having completed their primary education; 38% and 42% having completed their secondary education; and 38% and 14% having completed university. Their children (two per family on average) are attaining higher levels of education than their parents. The percentages of children at each level who are getting more education than their parents did are: primary 2%; secondary 25%; intermediate 26%; university 28%; and postgraduate 19%.

Governance and Cultural – The Central Committee is a kind of mini-municipality. Solanda residents participate and meet to discuss their shared problems and aspirations, as well as matters of mutual concern. They adopt resolutions on a number of issues, such as monthly activities fees, publications, and neighborhood maintenance and cleanliness. The Committee also interacts with and oversees the police, Municipality of Quito, and other government agencies on matters affecting Solanda, such as water and sewerage, health, education, transport, and social well-being. Among other things, it also organizes dances, music, and art-and-crafts workshops for women.

Problems

Juvenile gangs – The activities of juvenile gangs are a matter of concern for the community. This is being addressed by the installation of security gates at the entrances to super-blocks (under the "bridge" housing units[2]), as well as by increased security and policing.

Electricity lines – The original overhead electricity lines are becoming obsolete and dangerous. The Central Committee has promoted a plan for their replacement underground at a cost of US$500,000 to be financed 30% by the residents, 50% by the Municipality of Quito, and 20% by the municipal electrical utility company.

Other problems – Other perceived problems being addressed by the Central Committee are the need to install traffic and pedestrian lights at major intersections, the need for parking spaces, and the weakening of community interrelations caused by the large influx of new residents.

[2] As mentioned earlier, "bridge" in this usage refers to a covered connector between two or more residential or commercial units, generally above ground level and across a passage or other open area, thereby creating both more usable space in the upper levels and a portico access to community green spaces or courtyards in the interior of the block.

Photo 23. Elementary school

Photo 24. Gonzalo Zaldumbide High School

Photo 25. Community/technical college

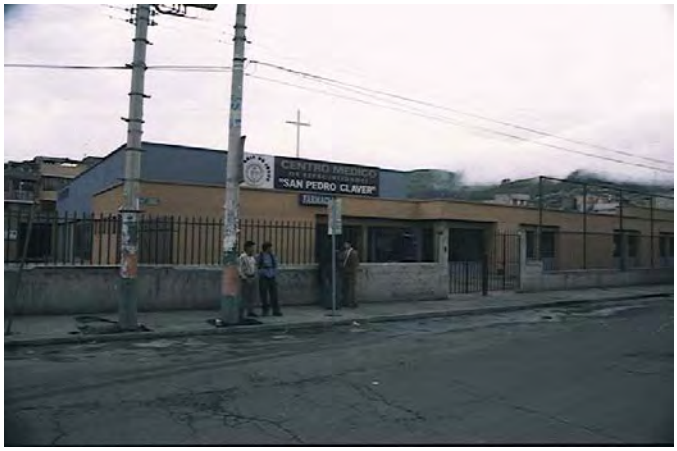


Photo 26. Medical center, Mariana de Jesús Foundation

Photo 27. Police station

Photo 28. Solanda Improvements Committee

Photo 29. Public spaces at Avenida Hugo Ortiz

Photo 30. Community areas within super-blocks

Lessons Learned

The lessons learned from implementation of the HG programs in general are covered in a later section of this report.

It is important here to highlight the significant role played by 518-HG-005 in the success of the Solanda program. USAID's 32% financial contribution to the Solanda program was an important catalyst. By itself, however, it would most likely not have ensured the overall success of the project. More influential elements were the nine "guiding principles" included by USAID in the Implementation Agreement with the Ecuadorian government, its relevant agencies, and the participating private sector foundation; together with USAID's continuing support and technical assistance before and during execution of the project.

USAID's continued participation and support of this program also resulted in a number of collateral improvements, such as:

- The incorporation of designs and norms for urban and shelter solutions affordable and appropriate to low-income families
- The adoption of incremental building processes to allow low-income beneficiaries to expand and improve their homes as their financial resources expanded
- Cost reductions in the provision of housing types (i.e., Floor & Roof, Sites & Services, and basic units)
- Application of market forces to the production of low-income urban and shelter solutions, as well as to their acquisition financing, so as to encourage participation by private sector institutions
- Insistence on cost-recovery mechanisms necessary to ensure the availability of mortgage loans
- Encouragement of participation by nongovernmental organizations (NGOs) in community development
- An effort to facilitate the government gradually becoming a housing development facilitator rather than a direct provider of built units.

In support of USAID's initiative, one very important factor contributing to the success of the Solanda program was the 35% financial donation in land and community development assistance by the not-for-profit Fundación Mariana de Jesús. Without this, it is difficult to imagine that the participating national and local government institutions could have achieved the same degree of satisfaction with shelter needs, urban quality of life, social cohesion, and economic improvement delivered to the target population.

However, in this regard, it is important to note the advantage, not normally available in projects of this nature, derived from the degree of subsidy implicit in the land and financial resources donated by FMJ. In effect, these represented classical supply-side style subsidies. On this subject, attention should be directed to the difference between supply-side and demand-side subsidies covered under "Lessons Learned and

Recommendations" in the "USAID-HG Country Development Assistance Impact" section of this report.

Honduras

An analysis of USAID's 522-HG-005 and 006 Program goals, purposes, and results is contained in the "USAID-HG Country Development Assistance Impact" section of this report. The overall objectives were:

- **HG-005 –** "Develop within the Instituto de la Vivienda de Honduras (INVA) the capability to produce and deliver approximately 2,000 low-cost shelter solutions and 1,000 home improvement loans annually which are affordable by families below the median income level in both primary and secondary urban centers in Honduras." The immediate goal was to finance approximately 4,340 minimum-cost shelter solutions ranging in price from approximately $2,500 for an urbanized lot and sanitary core to approximately $4,800 for a one- or two-bedroom core house on an urbanized lot; and 3,000 home improvement loans, averaging $500 per loan. To this end, the Honduran government committed $5 million and USAID guaranteed a further $10.5 million for project financing and contributed an additional $400,000 in technical assistance (currency shown here is in 1980s U.S. dollars).
- **HG-006 –** "Improve the capacity of the municipal governments of Tegucigalpa and San Pedro Sula to implement cost-recoverable programs to upgrade marginal, urban communities on a scale sufficient to reduce the housing and infrastructure deficits." To this end, financing was provided by Honduran government funds of a minimum $2.5 million and by a USAID guaranteed loan of $10 million, together with two USAID grants in the total amount of $350,000 to support technical assistance and small pilot projects (currency shown here is in 1980s U.S. dollars).

It is estimated that substantially more than 50% of program beneficiaries continue to live in each of the four developments assisted by these two HGs.

To determine the results and impact of the above HG programs, a survey of 111 original beneficiaries continuing to reside in their projects was conducted by the RTI team in two housing developments (40% each) and in two urban upgrading projects (10% each), all in Tegucigalpa. These surveys are summarized hereunder; a full description and results appear in Annex II.

Patronatos have been directly involved and a critical factor in the success of the projects. The *Patronatos* are community organizations established in each recognized neighborhood. They are run by a board of directors elected at assemblies of all community residents and include at minimum a president, a secretary, a treasurer, an auditor, and three other members. Women residents figure prominently and are very active in these *Patronatos.* The main function of the *Patronatos* is to promote and ensure the development and progress of their community. They are recognized in the Law of Municipalities and registered in their corresponding municipalities. The Tegucigalpa *Patronatos* have a representative within the City's Municipal Council.

HG-005, Shelter for the Urban Poor – Program Results

Hato de Enmedio – This housing project was developed and executed (infrastructure and housing plans, construction contracting, sales, and mortgage financing) by INVA on a tract of land it acquired in an urban area adjacent to another important development called Ciudad Kennedy. All relevant urban utilities (water and sewer, electricity, etc.) were provided by the corresponding public enterprises. The following units were built and sold to qualifying beneficiaries (prices are in US$ at time of sale):

	Units planned	Units built	Price/unit
Sites & Services	2,150	865	3,250
One-room core homes	1,310	1,500	5,750
Two-room core homes	860	1,300	6,750
Total	4,320	3,665	

The number of units built was reduced because of infrastructure and shelter construction cost increases. Sales prices were also adjusted at time of sale depending on the financial capacity of acquirers and on lot characteristics (size, corner lots). In general, development and sale proceeded without undue technical problems or political interference.

However, one distinct feature concerned the “home improvement loans” component, for which INVA set up a dedicated administrative division with a US$1 million loan budget. Purchasers of units in the Hato de Enmedio development were given a priority call on these loans. This may have caused certain beneficiaries applying for both loans to incur debts in excess of those originally estimated for qualifying purchasers of Sites & Services and core housing categories. However, time and inflation worked to correct any such initial over-indebtedness.

El Sitio – This housing project was undertaken as an experiment in promoting the development of low-cost housing by the private sector under a system called “turnkey.” In this case, INVA agreed to purchase from a private firm, Compañía Agropecuaria El Sitio, for transfer to its mortgage borrowers, 1,800 housing units to be built by Seller to INVA’s specifications. Under the agreement, Seller committed to finance and deliver the housing units with all urban infrastructure that was required and mutually agreed to, such as water, sewerage, electricity, streets, parks, and communal spaces.

Although this project is now relatively well established and has even grown beyond the 1,800 homes initially envisaged, its full development was fraught with problems and delays reaching into the late 1990s.

Photo 31. Aerial view of Colonia Hato de Enmedio

Photo 32. Aerial view of Colonia El Sitio

Photo 33. Original unit, Hato de Enmedio

Photo 34. Improved core housing unit, Hato de Enmedio

Photo 35. Commercial area development, Hato de Enmedio

Photo 36. Improved basic unit, El Sitio

Photo 37. El Sitio, original unit

Photo 38. Office building, El Sitio

Initial problems were related to the need for vast earth movement and consequent compacting to support construction. Also, because of proximity to low-lying hills and the site being beyond the reach of existing public utilities, the developer was forced to drill water wells and provide an oxidation lagoon for sewage treatment.

The developer delivered a first batch of 1,084 houses during 1983, of which 970 were adjudicated by INVA to qualifying beneficiaries. But arrival of the rainy season dislodged insufficiently compacted earth and the ensuing settling-in produced a number of wall cracks and other changes to beneficiaries' homes. Well water, although potable, was found unacceptable due to its hardness. And the virtues of the oxidation lagoon were also disputed. An appeal to the public sanitation utility Empresa Nacional de Acueductos y Alcantarillados (SANAA) was rejected by the utility, as the cost of extending lines to this development was beyond the developer's means and those of the population itself.

Faced with this reality, USAID agreed to participate and contribute to the solution. Land was stabilized and off-site connections to established water and sewerage lines were financed and built.

But when all physical problems seemed overcome, a new range of political problems appeared. The owner of the developing company belonged to the party in opposition to the government. The Presidential Office instructed INVA to not receive the finished units and also to sue for recovery of sums paid. Congress demanded the opening of an investigation and in 1988 issued a Decree mandating resettlement of the affected families to be paid with funds from the central government. A resettlement order was duly issued, with the alternative that a restitution of funds be made to those wishing to remain and electing this solution. Approximately 170 families opted for a return of funds, after which INVA rehabilitated and reassigned their units to new beneficiaries, who promptly joined the list of complainants. No mortgage payments were made by resident owners during this period, which lasted until 1995.

Although INVA had continued to complete the units not received from the developer and to face all attending legal problems, it was finally liquidated and replaced by Fondo Social para la Vivienda (FOSOVI), which took over all of INVA's projects. A renewed collaborative effort by the municipality, the *Patronato*, and FOSOVI was undertaken to provide up-to-date infrastructure and community facilities. This resulted in an important revitalization of the community. Residents, now assured of stability, have begun improving their units and generally taking charge.

Progress has been quite fast and the community is now fairly well established and growing. The goal of 1,800 settled families is being exceeded and a number of educational, commercial, business, and industrial activities installed.

Community Environment and Services

A very important consequence of the HG programs in Honduras is the encouragement they have given the beneficiary communities to develop a broad range of basic services, which traditionally have been totally lacking. The following data support this finding:

Services	Hato de Enmedio	El Sitio
Kindergartens	2	2
Primary schools	6	3
Public hospital	1	
Private clinic	1	
Health centers (Cesar)	1	1
Pharmacies	3	2
Public telephones	10	3
Bus stops	4	2
Banks	1	
Cooperatives	2	2
Police stations	2	1

Churches	6	3
Community centers	1	

To the above can be added recreational parks, sports fields, and neighborhood stores.

There are no markets on site. Fire service is deficient and only available from three stations in Tegucigalpa. Postal service was at one time provided in Hato de Enmedio.

Home Improvements and Additions

All survey respondents had made some form of addition or improvement to their homes. All observed units had fully built out their 72 m² lots. All had added a front porch to increase their social usage area. The most common addition was one or two extra rooms on the back of the lot (93% of the owners modified their houses to enlarge the residential area and 96% said they needed an additional area to absorb the growth in their families). Vertical additions were reported as follows:

Floors	Original homes	Current homes
0	8%	
1	85%	75%
2	5%	22%
3	2%	2%
4		1%

("0 floors" reflects Sites & Services)

These additions were financed 55% with own funds, 15% from pension funds (teachers and public employees), and only 10% with bank loans.

Family Wealth and Assets

Surveyed families reported paying between $2,500 and $27,500, with a median price of $6,000. Based on their responses to what they could expect to sell their homes for and on a review of general market prices, a current average sales price of $20,000 was established (in some extreme cases of fully built-out homes, sales prices of up to $150,000 could be expected). These statistical figures would indicate a 233% growth in beneficiaries' real estate wealth.

Original cost	$6,000
Estimated current sales value	$20,000
Percent increase in value	233%

Together with the increases in floors and living spaces, families have been increasing their ownership and use of major appliances, among other domestic furnishings and wares, all of which is indicative of increasing economic well-being. Following is the increase in ownership of appliances, cars, and computers by families.

Hato de Enmedio and El Sitio:	From	To
Refrigerator	63%	93%
Kitchen range	78%	94%
Oven	22%	74%
Washing machine	1%	39%
TV unit	88%	93%
A/C unit	0%	7%
Motorbike	2%	3%
Car	9%	43%
Computer	0%	34%

Family Income and Poverty Alleviation

One of the outstanding features of these developments is the degree of improvement in the quality of remunerated activities (employment, professional, business) experienced over time by the beneficiary family members. Key examples of this, measured as a percentage of members in the surveyed households, are shown in Exhibit 5.

Exhibit 5. Change in the occupational level of the family: Hato de Enmedio and El Sitio

	Originally		Currently		
Occupation	**No. of Persons**	**%**	**No. of Persons**	**%**	**% Change**
Worker	42	40.4	49	31.6	-8.8
Artisan	7	6.7	8	5.2	-1.5
Driver	3	2.9	7	4.5	1.6
Merchant	12	11.5	25	16.1	4.6
Teacher	10	9.6	15	9.7	0.1
University professional	9	8.7	23	14.8	6.1
Student	13	12.5	11	7.1	-5.4
Policeman	1	1	3	1.9	0.9
Doctor	2	1.9	2	1.3	-0.6
Waiter	1	1	2	1.3	0.3
Domestic employee (maid or housekeeper)	1	1	4	2.6	1.6
Others	3	2.9	6	3.9	1

Analyzed in 1980 dollars (Lps. 2 = 1US$) versus 2005 dollars (Lps. 20 = 1US$), the displacement in the salary scale of the persons interviewed can be observed (Exhibit 6). Income that in the 1980s appeared in the scale of salaries at less than $200 per month, at present appears in the range $200 to $600. This result is a consequence of the occupational shift shown above and the improvement in the educational levels of the members of the family.

Exhibit 6. Change in the level of income of the members of the family: Hato de Enmedio and El Sitio

Income per Month in US$	Originally		Currently		% Change
	No. of Persons	%	No. of Persons	%	
50 – 100	49	52.1	5	3.3	-48.8
101 – 200	35	37.2	45	30	-7.2
201 – 400	6	6.4	54	36	29.6
401 – 600	3	3.2	25	16.7	13.5
601 – 1000	1	1.1	17	11.3	10.2
1500 – 2000	0	0	4	2.7	2.7
2000 plus	0	0	0	0	0

Home/Business Use

Increasing educational and occupational levels have resulted not only in growing income levels, but also in opportunities for the development of family businesses, which have grown from 13 to 31 in these two communities.

Exhibit 7. Change in business income: Hato de Enmedio and El Sitio

Income per Month in US$	Originally			Currently			% Change
	No. of Businesses	No. Surveyed	%	No. of Businesses	No. Surveyed	%	
50 – 100	8	87	9.20	4	87	4.60	-4.60
101 – 200	4	87	4.60	4	87	4.60	0.00
201 – 400	0	87	0.00	9	87	10.34	10.34
401 – 600	1	87	0.00	8	87	9.20	9.20
601 – 1000	0	87	0.00	4	87	4.60	4.60
1500 – 2000	0	87	0.00	1	87	1.15	1.15
2000 plus	0	87	0.00	1	87	1.15	1.15

Family Welfare: Social, Health, Educational, Cultural

The surveyed families in the analyzed projects reported that their access to an owned home and the standard of living in their communities had contributed greatly not only to their improving economic conditions, but also to their social, educational, and cultural development.

Additionally, 87% of household heads and 82% of spouses reported having good or very good health. Most of reported health issues concerned children affected by respiratory and gastrointestinal issues. The government has installed health centers, called “Cesar” in each of these communities, staffed by a doctor and two nurses.

HG-006, Urban Upgrading – Program Results

Colonia Oscar A. Flores – This urban upgrading project was established in 1980 under the government's Proyecto de Mejoramiento de Barrios Marginales (a slum improvement program) by the former Metropolitan Council of the Central District (Consejo Municipal del Distrito Central, or CMDC), now the Municipality of Tegucigalpa. Settlers were sold a plot of undeveloped land with unpaved streets and with no sidewalks. The first utility installed was electricity, financed by a European grant. Residents bathed and washed their clothes in a nearby creek. Potable water was hand-carried from a neighboring community about 1,200 m away. Eventually, SANAA installed one community water tap and entrusted a resident to sell water from it with payment to SANAA on a global consumption basis.

When CMDC asked for HG program support, a project to provide potable water and sewer lines to 250 families was agreed to on the basis of project costs being recoverable from beneficiaries. But, at this point, not all lots in the community had been sold and this placed out of reach any undertaking for existing owners alone to underwrite the full project. However, thanks to a joint formal commitment by the *Patronato* and CMDC to assign remaining lots to new beneficiaries disposed to paying their share of costs, USAID HG funds were made available for the complete installation of the requested water and sewer lines. An interesting aside is that when the then-president of the *Patronato* learned that the value of these infrastructure investments per family was substantially greater than the price of the individual lots (lot prices being determined on a politically inspired, rather than market established, basis), he decided to reject the project. He was promptly sacked by the community and a new president elected in his stead.

Once these basic utilities were in place, the community as a whole embarked on an ambitious further development activity. Individual homes originally made of wood were rebuilt, improved, and expanded; streets were paved; and the whole area was cleaned and beautified to such an extent that it received municipal prizes for cleanliness and even one for ecological conservation. The *Patronato* has been working with education and health authorities to build two schools for community children, and a health center (in process).

Barrio Bella Vista – This neighborhood (barrio) is one of the oldest in Comayaguela, a part of Tegucigalpa. It was a private development sold as undeveloped lots without any infrastructure whatsoever (a common practice in Honduras in those days, in which even municipalities sometimes indulged). By the time of the HG agreements, Bella Vista had been provided a potable water system financed by a European NGO, and its *Patronato* and municipality asked USAID to help in providing a complementary sewer line system.

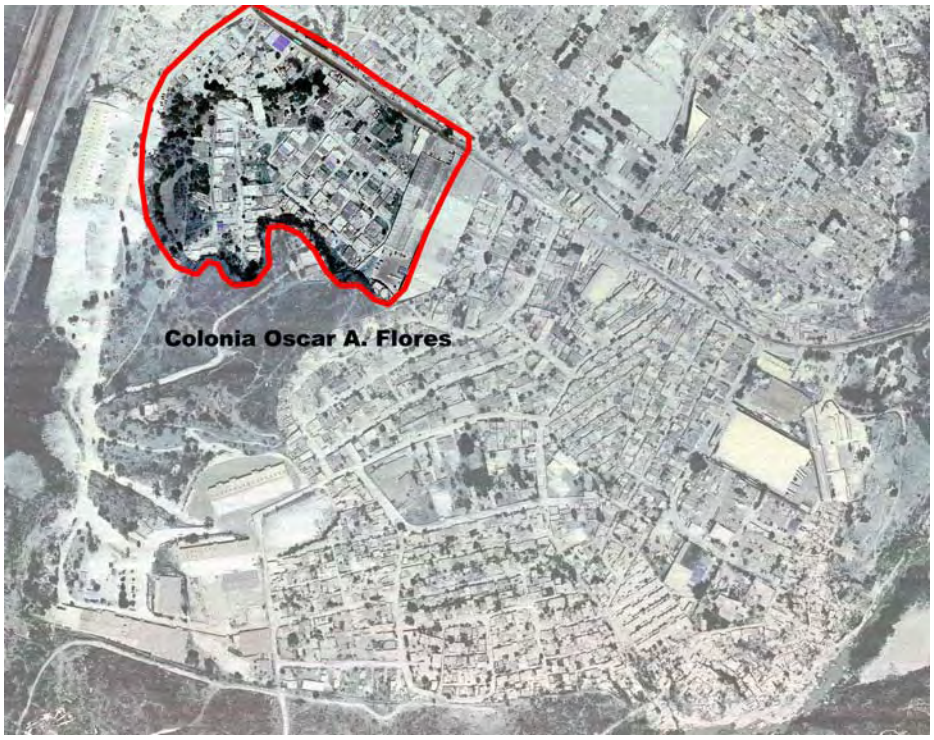


Photo 39. Aerial view of Colonia Oscar A. Flores

Photo 40. Aerial view of Barrio Bella Vista

The project was approved to include service for up to 180 families. As the number of potential users had now dropped due to resettlement of certain residents put at risk by seismic activity, the feasibility study required the municipality to certify that the community's terrain and geological condition were appropriate to sustain the projected utilities. This certification was obtained over the mayor's signature, and the laying down of sewer lines was accomplished. However, since then, the terrain has failed on 11 occasions and, although the municipality and SANAA (the water and sewer utility) have in each case repaired the ensuing damage, landslide areas have been isolated and financing is being sought for containment walls and terrain stabilization.

As a result of this situation, progress has been limited. A majority of streets remain unpaved due to municipal and SANAA reluctance to invest in paving streets that will be prone to deterioration from natural disasters such as earthquakes and flooding, and that have a high degree of probability of being torn up for sewerage system repairs.

Nevertheless, there has been some progress. A number of homes have been improved, some even luxuriously. Residents on the whole have improved their economic well-being. The community has elected a new board to the *Patronato* composed of professionals and a woman president committed to "exerting every effort to satisfy residents' legitimate requirements."

Photo 41. Unimproved road, Oscar A. Flores

Photo 42. Paved road, Oscar A. Flores

Photo 43. Improved unit, Bella Vista

Photo 44. Current road condition, Bella Vista

Community Environment and Services

These two communities started with only electrical service available. Their access to installed potable water and sanitary sewerage under the HG programs has transformed them into middle-class communities, where skilled and intermediate workers and university professionals live. This change has allowed them, and their *Patronatos,* to put pressure on local authorities for a response to their demands. The level of satisfaction in these communities, as expressed in the surveys, shows 83% of families stating that all urban utilities and services, and their housing environment, had improved since the projects were carried out. The changes that occurred during the period studied can be summarized as follows.

Services	Flores	Bella Vista
Kindergartens	1	1
Primary schools	1	1
Public hospitals	1	
Private clinics		1
Pharmacies		1
Public telephones	2	1
Bus stops		1
Churches	3	4
Community centers	1	

To the above can be added parks, athletic fields, and small stores. On the other hand, there are no markets on site yet, nor adequate fire service, which is only available from three stations in Tegucigalpa.

Initially the streets in both communities were practically impassable. Today, more than 70% of Oscar A. Flores is paved. Unfortunately, the situation is not the same in Bella Vista because of its location in an unstable seismic area. Here, progress has been limited and a majority of streets remain unpaved due to municipal and SANAA reluctance to invest in paving streets that will be prone to deterioration from natural disasters such as earthquakes and flooding and that, in addition, have a high degree of probability of needing to be torn up for sewerage system repairs.

Home Improvements and Additions

Most (82%) households surveyed manifested deep and progressive patterns of improvement and additions to their homes. This was even the case, although to an understandably lesser degree, in the Bella Vista community, where the terrain is precarious. Of the families having improved or increased their homes, 82% did so with own and family funds.

Family Wealth and Assets

Lots in these developments were generally acquired at symbolic prices and initial shelters were normally initially built with scrap lumber, tin sheets, and even cotton and plastic sheets. Surveyed families reported paying between $380 and $3,750, with a median price of $1,548. Based on their responses as to the price for which they could expect to sell their homes, a current average sales price of $20,000 was established (an extreme example was reported in Bella Vista of $150,000). These figures indicate an almost 1200% growth in beneficiaries' real estate wealth, but it must be borne in mind that the original cost is reported in 1980s U.S. dollars and that lot prices paid at time of acquisition were highly subsidized by the government.

Original cost	$1,548
Estimated current sales value	$20,000
Percent increase in value	1192%

Together with the increases in floors and living spaces, families have been increasing their ownership and use of major appliances, among other domestic furnishings and wares, all of which is indicative of increasing economic well-being. Following is the increase in ownership of these appliances by families.

Oscar A. Flores and Bella Vista:	From	To
Refrigerator	8%	44%
Kitchen stove	15%	46%
Oven	6%	23%
Washing machine	2%	13%
TV unit	19%	50%
A/C unit	0%	2%
Car	0%	38%
Computer	4%	6%

Family Income and Poverty Alleviation

One of the outstanding features of these developments is the degree of improvement in the quality of remunerated activities (employment, professional, business) experienced over time by the beneficiary family members, even allowing for the dip caused by the adverse structural conditions in Bella Vista. This, measured as a percentage of members in the surveyed households, is exemplified as shown in Exhibit 8.

Exhibit 8. Change in the occupational level of the family: Oscar A. Flores and Bella Vista

Occupation	Originally No. of Persons	Originally %	Currently No. of Persons	Currently %	% Change
Worker	10	55.6	27	58.7	3.1
Artisan	1	5.6	1	2.2	-3.4
Driver	0	0	2	4.3	4.3
Merchant	5	27.8	10	21.7	-6.1
Teacher	0	0	0	0	0
University professional	0	0	2	4.3	4.3
Student	0	0	0	0	0
Doctor	1	5.6	1	2.2	-3.4
Domestic employee (maid or housekeeper)	1	5.6	2	4.3	-1.3
Others	0	0	1	2.2	2.2

In marginal communities such as these, the most common occupation of residents is laborer. In the case of our surveyed families, 56% originally were thus occupied. In time, the occupations shifted toward commerce (22%) and better-paid employment. Exhibit 8 shows the occupational change in these communities. It is notable that 4.3% are university professionals and 2.2% medical doctors. The change in the occupational situation is a consequence of the better educational levels obtained. The younger members of the population have better positions and therefore better income, which means a better standard of living.

At the beginning, almost all families were unemployed; currently they enjoy incomes in the mid-range for the population. Interviewed families started out earning less than $200 per month. Currently 45% earn between $200 and $600, contributing to a notable improvement in family living conditions (Exhibit 9).

Exhibit 9. Change in family members' income: Oscar A. Flores and Bella Vista

Income per Month in US$	Originally No. of Persons	Originally %	Currently No. of Persons	Currently %	% Change
50 – 100	9	60	5	11.9	-48.1
101 – 200	6	40	16	38.1	-1.9
201 – 400	0	0	14	33.3	33.3
401 – 600	0	0	6	14.3	14.3
601 – 1000	0	0	0	0	0
1500 – 2000	0	0	1	2.4	2.4
2000 plus	0	0	0	0	0

Home/Business Use

Increasing educational and occupational levels have resulted not only in increased income, but also in opportunities for the development of family businesses, which have grown from 4 to 16 in these two communities (Exhibit 10).

Exhibit 10. Change in business income: Oscar A. Flores and Bella Vista

Income per Month in US$	Originally		Currently		% Change
	No. of Persons	%	No. of Persons	%	
50 – 100	4	17	3	13	-4
101 – 200	0	0	4	17	17
201 – 400	0	0	4	17	17
401 – 600	0	0	4	17	17
601 – 1000	0	0	1	4	4
1500 – 2000	0	0	0	0	0
2000 plus	0	0	0	0	0

Family Welfare: Social, Health, Educational, Cultural

The surveyed families in these projects reported that their access to an owned home and the standard of living obtained in their communities had contributed greatly not only to their improving economic conditions, but also to their social, educational, and cultural development.

Additionally, 96% of household heads and 92% of spouses reported having good or very good health. They were all very clear that the continuing good health of all family members is due in great measure to the availability of potable water and sanitary sewers.

Lessons Learned

The housing and urban development projects sponsored by the HG programs in Honduras not only represented important initiatives in affordable shelter and infrastructure production for low-income families, but also resulted in significant improvements in their quality of life and economic welfare. All four projects analyzed ended up with improved community and social services, as well as with better safety, educational, and health services and expanded earnings capacity.

It is interesting to note in conversations with residents that even after 20 years, these beneficiary families continue to recognize and are grateful to the United States for the assistance received. This allowed them not only to realize their dream of owning their own homes but also, as a result of the improved living conditions, to greatly improve

their families' economic conditions and welfare. Testimonials (including some witticisms) include:

- A gentleman in the Oscar A. Flores community who, thanks to his improved economic standing and with help from his sons, was able to send a daughter to study and graduate as a medical doctor.
- A family that built a new two-story building in the rear of their lot to house the couple's three children and grandchildren, the whole now comprising 18 persons. The explanation given by the respondent for this agglomeration was that he wanted to keep his family together and that in any case, Uncle Sam had given him his home to live in with his family, and he was keeping up his end of the deal.

Sites & Services solutions, complemented with home improvement loans, proved to be a preferred solution, as they allowed for home expansions and additions to accompany the families' improving economic conditions. A stunning example of this was a resident of Bella Vista who, with remittances from her three sons, was able to add to her home three floors which she now rents.

The "turnkey" project developed in El Sitio with a private developer failed to live up to expectations because of inadequate controls and supervision by responsible authorities, together with much political interference.

Reliable and efficient implementation of a National Housing Policy, free of political pressures, is fundamental to the promotion and execution of low-income shelter projects. Lacking this, the scarcity of housing solutions for the very poor continues to grow along with the urban population and strong pressure for land invasions follows.

USAID-HG Country Development Assistance Impact

Ecuador – 518-HG-005

Original Goals

The 518-HG-005 Program was developed between 1980 and 1986 (including project preparation and design) by USAID and the Ecuadorian government to meet the growing urban and housing demands being placed on the country's largest cities by an increasing internal migration of poor families from impoverished rural areas. Although USAID had previously assisted the government in setting up, financing, and supporting a system of home savings and loan associations and in strengthening other public and private institutions specializing in urban development and mortgage financing, these market-oriented institutions, despite best intentions, were failing to reach down to the very poor now flocking to the cities.

The alleviation of extreme urban poverty thus became the priority focus of this HG program, under the following "guiding principles":

- Lower-income groups need to be provided with shelter solutions that they can afford with minimum government support for housing construction and infrastructure investment.
- A commitment must be made to minimum infrastructure standards, and to progressive housing solutions that can be improved or expanded through self-help construction and mutual assistance.
- Integrated approaches are best for dealing with the multiple problems of the poor: low-cost housing, physical and social infrastructure, employment, training, and community organization.
- Low-income housing projects can be financed at terms dictated by the marketplace.
- Urban development activities need to be integrated through national planning, and a commitment to put such process to work.
- A national commitment is needed to address the problems of the urban poor.
- The political parties must recognize that a vital ingredient of a productive housing policy is effective cost recovery from the beneficiaries to provide new capital to finance more shelter solutions.
- Urban development projects can and should be planned and implemented so as to minimize potentially adverse effects on the environment.
- It is hoped that this pilot program will result in effective, replicable systems for solving the problems addressed.

This program, on a single site called Solanda, was further described as "the first in a series of integrated urban development projects that A.I.D. may use to assist the Government of Ecuador to develop a new system for implementing: urban development projects which combine low-cost housing, physical and social infrastructure,

employment/training activities, and community organization." It was to achieve the following outputs:

1. A planning process that can serve as a model for application in urban areas of the country and that will assure the coordination of public and private sector institutions in the production of integrated shelter and urban development projects.
2. A comprehensively planned residential development of Solanda directed at families with incomes ranging between the 10^{th} and 45^{th} percentiles of the income distribution for the nation's capital. This program will include:
    a. Construction of approximately 4,500 shelter solutions, all of which will be units requiring completion or expansion by the homeowner. The units will have habitable spaces ranging between 21 m^2 and 79 m^2 on lots of 61 m^2 to 123 m^2, with all units having individual potable water and sewerage connections.
    b. Construction of the related community facilities, specifically: 4 primary schools, 1 high school, 4 kindergartens, 4 day care centers, 1 health center, 1 municipal administration office, 1 police station, 1 fire station, 1 post office, 1 church, 1 market, 1 cultural center, and 4 buildings for cooperatives, to include community laundry facilities.
    c. The necessary on-site and off-site infrastructure, including water supply, storm and sanitary sewers, paved streets, and electricity.
    d. A comprehensive community development program, to include neighborhood organization, social assistance, construction assistance, and the support or creation of small businesses and community-owned enterprises.
3. A technical assistance program at the national level which will result in:
    a. A set of urban development and low-cost shelter design standards with emphasis on the provision of community facilities, and environmental protection guidelines.
    b. Shelter finance policies to reflect the need for flexibility when dealing with low-income families (financing of incrementally developed housing, graduated payment financing), and the need to maintain a healthy base of resources in addition to government funding available for investment in shelter programs.
    c. Guidelines dealing with the setting of user charges for public infrastructure and other policies of local government affecting shelter project planning and design.
4. A technical assistance program at the local level which will result in:
    a. The application of a comprehensive planning process between the public and private sector institutions working on the implementation of the Solanda program.
    b. The formulation and application of an evaluation system for the Solanda program. The results of such evaluation will be incorporated into the overall formulation of a national system for integrated urban programs for the poor.

c. A model program of community development and organization, with emphasis on the design and use of appropriate facilities and income generation.
d. A program for assisting self-help housing construction and home improvement.

The following public institutions joined USAID as parties to the HG Agreement: BEV, Junta Nacional de la Vivienda (JNV), and Municipalidad del Distrito Metropolitano de Quito (MDMQ); as did, from the private sector, the not-for-profit Fundación Mariana de Jesús. The FMJ's financial contribution consisted of donations and, overall, it played a key role in helping and qualifying beneficiary applications and in promoting and organizing community involvement. Financing for the Solanda program was to be provided as follows (1980 USAID estimations in thousands of U.S. dollars):

USAID	20,630	31.9%	Urbanization/housing	20,000
"			Technical assistance	630
BEV	7,900	12.2%	Urbanization/housing	7,900
FMJ	22,830	35.3%	Land	9,900
"			Community facilities	11,490
"			Community development	1,440
MDMQ	11,150	17.2%	Off-site water and sewer	11,150
Beneficiaries	2,180	3.4%	Housing	2,180
Total	**64,690**	**100%**		**64,690**

All investments, excepting FMJ's donations, were to be fully recoverable from beneficiaries: (1) off-site investments required to bring electricity, water, and sewer lines to Solanda, through cross-subsidies in water consumption fees; and (2) USAID and BEV urbanization and home construction funds, through mortgage loans written by BEV. However, extended high inflationary conditions extant during most of the program's life made mortgage loans unrecoverable through standard adjustable clauses and, eventually, made an experimental loan system with negative-amortization features equally unsustainable, forcing the Ecuadorian government and BEV to write-down principal and amortization quotas. As a result, after "dollarization" of the currency in March 2000, current amortization payments of principal and interest no longer recover initial investments.

Goals Achieved

The goals established in 1980 for 518-HG-005 could at that time have appeared somewhat ambitious. But, on the main, they have all been achieved and in many instances surpassed. Thus:

Goals	Planned	Achieved
Shelter solutions	4,500	6,211
Day care, kindergartens, and primary schools	12	18+
High schools	1	8
College-level and adult education centers	0	2
Health centers	1	4
Churches	1	2
Police stations	1	1
Fire stations	1	1
Post offices	1	1
Markets (includes an adjacent producers market)	1	2
Supermarket (private chain)	0	1
Community centers	5	6

Of the 6,211 shelter solutions built, 622 corresponded to Sites & Services, 2,002 to Floor & Roof, 1,527 to core units, and 2,060 to units of between 40 m^2 and 72 m^2. Planning questions were initially raised as to the economic validity of offering very basic shelter solutions, including acquisition costs for construction elements that could reasonably be expected to be eventually demolished upon upgrading to more permanent structures. But the validity of this approach has been clearly established by the real-life experience reported by beneficiaries who opted for it. The fact that they could, with this (for them, the maximum affordable) investment, accede to a titled lot and immediate shelter was what allowed them to consolidate their home over time. To them, the sunk costs on the eventual demolition were definitely a worthy investment. It is estimated that the great majority of original beneficiary families continue to live in Solanda.

Subsequent home additions and improvements were financed, depending on circumstances: through increased-principal BEV mortgages; by family, Social Security Institute, or other source signature loans; as well as by innovative self-funding communal loan lottery/pools. And over the 25-year life of this program, the expansion, additions, and improvements to the original households have been truly impressive. Of the sampled households alone:

- 9% increased ground floor space
- 4% have added one floor
- 58% have added two floors
- 25% have added three floors
- 4% have added four floors.

All of these residents have substantially improved their standard of living. It is estimated that in the overall development, only between 10% and 15% of beneficiaries had not made any additions to the original home and, at the other end of the scale, that between 10% and 15% had completed five to six floors. The growth in living space has allowed Solanda's resident population to more than quadruple, not just from family growth but also by attraction of newcomers. From the approximately 15,000 to 18,000 original residents, the Solanda population is now estimated at more than 80,000.

This increased population has generated an impressive growth in resident businesses, both of the at-home kind and of the typical neighborhood kind. Although the sample survey showed that 28% of families were renting a store space, it is believed that at least 40% of all buildings were rented for business activities. The types of businesses include: bazaars, neighborhood stores, food stores, ice-cream counters, bakeries, hairdressers, music stores, and stationery stores. Some of the principal streets have also been adapted to larger businesses such as restaurants, Internet cafes, pharmacies, boutiques, delicatessens, coffee shops, clothing and shoe stores, and even a supermarket branch of the Super-Tía chain. This commerce mainly opens from 09:00 to 22:00 hours. Also, as previously mentioned, Solanda benefits from the lower prices available at the adjacent Quito's wholesale producers market.

Solanda is extremely well served by a number of private bus routes and a first-class electrical trolley-bus system linking it to all principal city areas. Internal streets are all fully paved and sidewalks properly installed. Trash collection services are provided thrice weekly by a municipal company (EMASEO).

The Solanda community enjoys a wide complement of easily accessible cultural, athletic, and park facilities, including a nature park, a neighborhood stadium, various football fields, green spaces and recreational parks, and landscaped avenues.

Looking at the success of the Solanda program, the following have been instrumental:

- A detailed planning process and continued progress support by USAID
- Special attention to the needs and potential of the beneficiaries
- Close coordination with local government and relevant utilities
- A committed and sustained community organization effort by FMJ
- Involved participation by program beneficiaries and elected leaders.

Honduras – 522-HG-005 and 522-HG-006

Original Goals

Whereas the Ecuadorian HG program was designed to achieve its various goals in a unified Solanda program, USAID's Honduran 522-HG-005 and 006 Programs covered the same range of goals in several developments in different cities, some focusing on housing and others on urban upgrading.

Their overall objectives were:

- **HG-005 –** "Develop within the Instituto de la Vivienda de Honduras (INVA) the capability to produce and deliver approximately 2,000 low-cost shelter solutions and 1,000 home improvement loans annually which are affordable by families below the median income level in both primary and secondary urban centers in Honduras." The immediate goal was to finance (1) approximately 4,340 minimum-cost shelter solutions ranging in price between US$2,500 for an urbanized lot and sanitary core to

approximately US$4,800 for a one- or two-bedroom core house on an urbanized lot affordable to families between the 35th and 50th income percentile groups in Tegucigalpa and San Pedro Sula, with only the least costly solutions being offered to inhabitants of secondary cities; and (2) approximately 3,000 home-improvement loans averaging US$500 per loan affordable to families at or above the 10th income percentile group in the major cities and at or above the 20th percentile group in the secondary cities. To these ends, the Honduran government committed US$5 million and USAID guaranteed a further US$10.5 million for project financing and contributed an additional US$400,000 in technical assistance.

- **HG-006 –** "Improve the capacity of the municipal governments of Tegucigalpa and San Pedro Sula to implement cost-recoverable programs to upgrade marginal, urban communities on a scale sufficient to reduce the housing and infrastructure deficits." To this end financing was provided by Honduran government funds at a minimum of US$2.5 million and by a USAID guaranteed loan of US$10 million, together with two USAID grants in the total amount of US$350,000 to support technical assistance and small pilot projects. Under this HG program, 26,000 families in Tegucigalpa, San Pedro Sula, and secondary cities were expected to benefit.

A subsequent Honduran government replaced INVA with a new institution, the Fondo Social para la Vivienda. Still later, the government turned the management and recovery of INVA's portfolio over from FOSOVI to a private trust, including the HG program. As a result of these changes and the Regional Housing and Urban Development Office's relocation to Guatemala, records on the complete results of both HGs have not been available, the private trust having refused to share this information. Nonetheless, based on empirical observations and local contacts in each of the four projects surveyed, certain conclusions can be drawn.

Goals Achieved

Hato de Enmedio and El Sitio housing projects

Hato de Enmedio is a recognizably successful project, with approximately 3,665 housing units built and occupied by the low-income target population. Out of these, 865 were Sites & Services, 1,500 core units and 1,300 basic improved core units. Out of a US$1 million assignment, 3,150 home improvement loans were made to eligible home owners.

In the El Sitio "turnkey" project, out of the 1,800 units programmed, 1,054 units were built and delivered by the developer. Of these, 956 were adjudicated to eligible buyers. FOSOVI, upon taking over from INVA, repaired un-adjudicated units and built the remaining 800 units to finish the project.

Colonia Oscar A. Flores and Barrio Bella Vista urban upgrading projects

Colonia Oscar A. Flores is a community originally organized by the Municipality of Tegucigalpa for the relocation of a group of families living in areas subject to landslides and flooding. The urbanization had a capacity to shelter 250 families, but the initial group consisted of only 145. USAID participation in the provision of potable water and sanitary sewers for this development required that the design and construction accommodate all of 250 families, with newcomers paying for their share of infrastructure improvements before being granted access to their lots. The community is now fully occupied and the provided infrastructure services are working well.

Barrio Bella Vista is one of the oldest subdivisions in Comayaguela (a part of Tegucigalpa). It is very centrally located, but built in a seismic area where small landslides are common and the infrastructure is not stable. Bella Vista houses 180 families and is fully occupied. The sewerage system built under the Urban Upgrading HG Program is serving the families originally planned and, although it has failed 11 times due to natural disaster, it has always been repaired by SANAA and the municipality and remains in good working condition.

Although Oscar A. Flores and Bella Vista are the only projects analyzed in this retrospective, it must be noted that more than 46 similar infrastructure projects were implemented under the HG program in Tegucigalpa, San Pedro Sula, and secondary cities. In San Pedro Sula, the project funding was matched by local resources to implement the División Municipal de Aguas (DIMA) development plan. US$4 million were invested in small water and sewerage projects, benefiting more than 24,000 families in San Pedro Sula alone.

All projects built under HG-006 Urban Upgrading were implemented only when the municipalities and the communities signed cost-recovery agreements. These agreements were part of the eligibility documentation and were taken as covenants between the government and USAID. Unfortunately, circumstances have not always been kind to these commitments.

Lessons Learned and Recommendations

The above HGs programs all shared an extremely comprehensive agenda, which included:

- Titled property ownership
- Adequate and affordable shelter for the very poor and lower-income families
- Financing on a leveraged basis
- Loans to beneficiaries and utilities fees on a recoverable basis
- Strengthening of government institutions (BEV 518-HG-005 in Ecuador; and INVA 522-HG-005 and Municipalities 522-HG-006 in Honduras)
- Private sector participation

- Community participation and social development programs, emphasizing households headed by women
- Family improvements in income, asset accumulation, education, employment, health, recreation, and general quality of life
- All social, legal, institutional, financial, planning, zoning, construction, and government coordination
- Program replicability.

This agenda was successfully achieved, with the following general and specific lessons deriving from it.

General

1. The basic lesson learned is that the types of programs that were developed, no matter the breadth of their agenda, were eminently feasible. Moreover, their successes have resulted in meaningful and enduring improvements in the quality of life of their beneficiaries; and by extension in the character and sustainability of their neighborhoods and the urban environment at large.

2. The counterpoint to the preceding observation is that USAID's involvement, support, and guidance at all stages of these programs was critical. Without it, the programs simply would not have been undertaken.

3. Furthermore, it is questionable whether projects such as the Solanda program in Quito would have been as successful without the financial donations and ongoing social collaboration of the participating not-for-profit foundation. Thus, an important consideration is that for mortgage lending to the very poor to be affordable and consistent with market rates, the application of demand-side subsidies (see specific lesson 9 below) might need to be considered.

4. Also, in cases of extreme inflation, full repayment of home loans may be beyond the capacity of program beneficiaries. No matter how great the commitment to cost recovery, when this goal becomes unattainable, the losses incurred will inevitably fall on dispossessed borrowers, the lending institutions, or a government bailout. Contractual interest adjustment clauses and innovative loan agreements (e.g., negative amortization loans, as tried in Solanda) may offer a palliative, but only up to practical limits.

5. Lastly, HG agreements with counterpart governments require the means to ensure as much as possible that the agreements are protected from changing government policies and/or political whims.

Specific

1. The three HGs covered in this retrospective provide ample proof that **poverty-alleviation and asset-building programs** for low-income urban families are eminently achievable and also can result in well-designed and affordable shelter solutions. This is also the case with the provision of potable water and sanitary sewers through appropriately conceived urban upgrading projects in marginal communities *(barrios marginales),* even in extreme cases such as Bella Vista in Honduras where terrain and upgrading circumstances were less than favorable.

2. All projects covered by these HGs resulted in enhanced empowerment of women. Spouses not only benefited from resulting improved family conditions and increased earnings potential, but also in many cases were able to set up and run small businesses of their own. They also became very active and influential in their neighborhood associations (i.e., the Solanda Central Committee in Ecuador and the *Patronatos* in Honduras), even acceding to the presidency.

3. USAID support and continued assistance provided to participating state agencies ensured the success of the various projects reviewed. But even here, it is important to protect as far as possible against politically inspired changes made by the host country (El Sitio in Honduras), as well as the transformation or total disappearance of counterpart government agencies (Honduras again with INVA).

4. It is fundamental to ensure the host country government's full commitment to the goal of ensuring that owners receive a valid title to their property. Beneficiaries' ability to "take off" with initiatives and further investments to improve and enlarge their homes depends heavily on this step.

5. It is extremely important for beneficiaries to become personally and collectively involved in the physical, social, and economic sustainability of their community. This is preferably obtained, where available, with the support and guidance of social foundations such as FMJ in Quito.

6. Close monitoring by USAID of project execution at all stages (development, construction, financing, beneficiaries) is crucial.

7. Close operational contact by USAID with all participating government agencies and collaborating NGOs and other private sector interests is also crucial.

8. Mortgage lenders need court and police protection for expeditious access to adequate redress in case of defaults.

9. FMJ's donations to the Solanda program were, in effect, supply-side subsidies benefiting all applicants regardless of individual levels of affordability. And as it can be anticipated that home ownership for the very poor will be predicated to some degree on the availability of subsidies, it is best to address this need at the outset,

instead of waiting for adverse economic conditions to force an inevitable bailout solution. In these circumstances, (Chilean style) “demand side” subsidies are a more efficient and economical solution, as well as being better justified on grounds of relative affordability by beneficiaries.

Replicability

Whereas the HGs themselves have been very successful in their execution and intended results, and as such are decidedly replicable, they have not, unfortunately, received the necessary follow-through from the host governments in Ecuador and Honduras. Reasons for this are mostly political and, in both countries, exacerbated by extreme inflationary pressures and adverse economic conditions.

Ecuador

No new project like Solanda has been initiated by its original government and private sector sponsors, or by anybody else, for that matter. Of its original sponsors, the Fundación Mariana de Jesús continues to provide social and housing assistance, but only from its own resources and on a direct basis. The Banco Ecuatoriano de la Vivienda, then a principal provider of mortgage loans, has now been transformed into a not-very-active “second story” bank limited to providing construction finance and trust operations. It is the main shareholder in the Compañía de Titularización Hipotecaria (CTH) which, despite a lengthy existence, has yet to produce its first mortgage securitization operation. The Junta Nacional de la Vivienda evolved into the Ministerio de Desarrollo Urbano y Vivienda (MIDUVI) in charge of the government’s urban development and housing policies. As a sideline, it administers a program of targeted housing subsidies for the poor, the Sistema de Incentivos para la Vivienda (SIV), with funding from the Inter-American Development Bank. These subsidies make it possible for a limited number of banks and cooperatives to write low-income mortgage loans. But in no case can it be said that there is a continuing, meaningful, and sustainable government program to provide low-income shelter solutions. Despite the growth in the population segment in need of such solutions, this segment has been left basically to its own devices since USAID’s departure.

Honduras

FOSOVI, which replaced USAID’s original counterpart INVA, has failed to live up to the repeated and sustainable production of shelter solutions for families below the median income level as hoped for under HG-005. The government’s National Housing Plan never attained its purpose and has been largely forgotten. Thus, no meaningful housing developments for the poor have been undertaken since USAID’s departure.

On the financial side, only what is left of a once vibrant savings and loan system continues to finance affordable housing, although mostly for lower-middle and middle-income families. The USAID-sponsored Financiera de la Vivienda (FINAVI) was

replaced by the Fondo de Vivienda (FOVI), attached to the Central Bank. It provides some financing to the savings and loan system, but without an established program or a system development strategy,

On a brighter note, the cost recovery feature advocated by HG-006 continues to be applied and enforced by municipalities in their infrastructure projects.

Annexes

Annex I – The Integrated Shelter and Urban Development Project, Solanda, Quito, Ecuador

A. Background

1. General Context of Solanda

After a long dictatorial period, Ecuador returned to being a burgeoning democracy. The decade prior to the 1970s gave way to increased oil production and a new economic era sustained on crude oil exports. Both newly rich and newly poor individuals began to appear in Ecuador's socioeconomic structure. The agricultural production base had been dramatically replaced by the prospecting activities and oil production. Poor people from rural areas began migrating toward the economic poles: the large cities. The new inhabitants placed large demands on housing and basic services.

Although large amounts of resources had been used for housing programs and there was access to international loans as well, the solutions executed through state agencies never reached the lowest economic strata of the population.

Private banks directed their resources to financing mainly consumer loans for the most economically favored sectors of the population. Access to long-term loans for low-cost housing solutions never appeared as a business or economic development opportunity. During the first 9 years of that decade, the rate of exchange remained at 25 sucres per dollar, which could have resulted in a perception of stability in the context of long-term loan administration and could have favored the financial housing business, but the financial system never became interested in housing finance.

Although other organizations participated in the housing sector, such as the Mutual System, Savings and Loan Associations, and the Ecuadorian Social Security Institute (IESS), none of these developed housing programs for families with less relative income.

In 1979 there was a transition from a military government to a democratic government. Expectations were very high, particularly among the poor. The transition, however, found Ecuador facing new phenomena: budget deficits, currency devaluation (repressed during the dictatorship), the fall of oil exports, the paralysis of agricultural exports, and increasing inflation.

In this context, the Solanda Integrated Shelter and Urban Development Project was created by USAID, to introduce policies, procedures, and institutional capabilities to respond in a better way to the rapid urban growth challenges in Ecuador.

2. Objectives and Elements of USAID's Strategy

USAID and the Regional Urban Development Office (RUDO) identified urban poverty as a priority sector. USAID's strategy was directed not only to the construction of a certain number of low-cost shelters, but also to the development of new technologies and institutional capabilities to carry out integrated urban projects in a systematic manner.

All of the resources of USAID's Guaranty Program were aimed toward a central objective: *"The establishment and operation of a new national planning, coordination, funding and comprehensive housing program implementation system, to care for the needs of the lesser income urban population of Ecuador."* [1]

The projects' objectives were determined by three large elements of the USAID/RUDO strategy for identification, design, and implementation:

- Construct basic units accessible to low-income families
- Recover costs
- Establish a new integrated strategy for the development of urban and shelter programs.

2.1 Construction of basic units accessible to low-income families

This strategic objective was linked to a USAID dialogue process to help the Ecuadorian government with the generation of policies and the creation of processes leading to:

- **Influence on state institutions of the housing sector (Junto Nacional de Vivienda [JNV; National Housing Board] and Banco Ecuatoriano de la Vivienda [BEV; Ecuadorian Housing Bank]) to serve the low-income population.** Before the execution of the Solanda project, the JNV and BEV had only been capable of developing one single project (Mena 1) accessible to families living below the median income. After Solanda, many projects were developed throughout Ecuador, mainly in the cities of Quito and Guayaquil, offering different types of solutions. As with the Solanda Integrated Project, the World Bank and Inter-American Development Bank financed similar projects throughout the country. However, the majority of these projects, although they included accessible solutions for low-income families, lacked the concept of comprehensiveness attained and applied so successfully in Solanda. In all later projects there was a true lack of participation by other organizations and public or private institutions; they were carried out exclusively by the BEV and JNV.
- **Introduction of the "progressive growth concept" for housing units.** The concept of progressive growth for the basic units in Solanda was applied as a reference standard for the planning processes. The architects and engineers of the JNV planning departments, the entity in charge of this process, had previous experience in designing low-cost shelter; however, the idea of implementing solutions—for example, sites with sanitary units (Sites & Services) and Floor & Roof units—was inconceivable. Many solutions, such as two-family units on two floors and bridge-type units, however, were introduced as complete units. Presently these are the ones that have generated the least growth in comparison to their potential.

  Every person surveyed reported some growth in their shelter areas that took place in different stages. Moreover, the construction process is ongoing. It could easily

[1] *Shelter and Urban Development Project Paper,* 518-HG-005/518-0030.

be determined that more than 90% of the families had carried out construction to increase the amount of habitable space. Leasing of habitable spaces constitutes a good source of income for the owners. Presently, Solanda accommodates more than four times the original population; therefore, it is not wrong to suppose that the physical construction that took place throughout the program increased at least in the same proportion. If we take in account that 2,624 units were Floor & Roof or Sites & Services solutions, they represented 42.25% of the total solutions built and sold. In other words, nearly half of the beneficiaries had to carry out additional work to convert their units into habitable ones.

It would not be far-fetched to calculate that the adaptations and construction additions from 20 years ago to date have meant an average of four times the sum of the total original construction area of 221,085.35 m^2, or presently at least 884,341,40 m^2. Said in a different way, *the progressive growth of the solutions surpassed any original estimation.*

The growth, however, has taken place without any sort of planning and without subjecting to the buildings to structural standards and municipal regulations, which brings forward some serious concerns in view of the presence of natural hazards. Likewise, although the families have property deeds, the informal nature of the growth prevented them from resorting to mortgage loans in order to carry out their expansions, as pertinent municipal approvals were required before such loans could be arranged. The majority chose collateral loans with personal guarantees or resorted to loans from group funds, as indicated in Section B 3.6.

- **The application of innovative funding mechanisms to serve lower-income families.** Concomitant with the above, despite having explicitly and transparently obtained subsidies, the lower-income groups' access to funding had to be ensured with credit mechanisms that would be the least burdensome for the awarding process. USAID studied and applied a new credit system, which included a payment plan with negative amortization; this instrument was able to reach the lowest economic sectors.

  The rates of interest used ranged between 18% and 19% with repayment periods of between 15 and 20 years.[2]

  However, it is not clear whether the subsidies were eliminated through the interest rates. In the research team's experience, the policy on subsidized interest rates for state loans continued for a long time in Ecuador. Interest rate management with implicit subsidies protected the offer of inexpensive shelter during political campaigns. This prevented the elimination of the hidden subsidies issue with regard to governmental decisions. Additionally, the great inflation phases that

[2] David Michael Vetter, Andres Jarrin and Jamie Bordenave, *The Solanda Integrated Shelter and Urban Development Project: Evaluation and Comparison with an Informal Settlement* (Washington, DC: PADCO, July 1988).

weighed down the economy, the continuous devaluations of the sucre,[3] and regressive individual income as a result of the fall in value of the currency and permanent elevation of inflationary indexes, lagged the true value of the loan repayment. This implies that the subsidies were never eliminated. Nowadays, many of the persons interviewed were continuing to pay amortization quotas ranging between US$1.00 and US$6.00. This is proof of the existence of negative returns.

- **Decrease costs by lowering design standards for the housing solutions, basic infrastructure, and the application of progressive growth concepts.** The execution of shelter construction projects under 100 to 120 m^2 was unimaginable until the arrival of the Solanda project. Programs requiring large roads and parking lots were projected instead, or projects requiring other infrastructure such as potable water services with a design period for over 30 years, consumption standards for 250 liters/person/day, and drainage systems with cast-iron pipelines. Such programs increased the cost of urban planning, not to mention the occupation indexes and uses of land, since the objectives were aimed at achieving low-density urban development (minimum site size of 300 m^2), roads measuring 9.00 m, and sidewalks of 2.50 m.

  USAID was able to convince government planners, policy and decision makers, and municipal oversight units to accept a reduction in the standards for progressive shelter design: the use of urban design and infrastructure standards to determine the possibility and capacity for establishing costs for accessible solutions for families that had never before been included in the urban and shelter development systems.

  Despite the fact that the Solanda population has quadrupled in size, the standards used at the time of construction of the original infrastructure seem to continue operating adequately and serving the present demands. All of the persons being surveyed (section 3 of the survey) when talking about the community estimated that the infrastructure services continued to be "good."[4] In addition, 100% estimated that the supply of basic services continued as "good."

  Originally, the plans were to build the electric energy distribution and public lighting networks through the use of wooden posts. The Electric Energy Company in Quito and the Municipality of Quito, however, did not authorize the use of these types of materials as they were considered perishable. The lighting system and distribution of electricity continues through overhead cables on the original posts. Mr. Fausto Camacho, officer of the Electric Energy Company of Quito, believes that if the wooden posts had been used, they would have had to be replaced and that the initial cost—which apparently would have been high—instead was a savings for the resident families.

[3] The national currency of Ecuador that circulated until March 2000. Since that date, the circulating currency has been the U.S. dollar.
[4] The potable water company of Quito's metropolitan district presently meets ISO 9000 quality standards.

2.2 Cost recovery and application of transparent subsidy policies to facilitate the access of lower-income income families

The state financing agencies, including the BEV and the Ecuadorian Social Security Institute,[5] introduced non quantifiable subsidy policies through the interest rates. They were intended to favor groups with less economic capacity; however, the financing instead ended up in the hands of those with higher relative incomes. The solutions that had been carried out to date were never received by families with very low income, except in a few cases. For the first time, with Solanda, it was possible to introduce new concepts to reveal and specify the necessary investment resources to reduce the final costs, as well as the sources of those costs. Exhibit 1 shows the composition of the necessary resources, origin of the resources, amounts that were subsidized, and amounts that would be recovered through loans to final beneficiaries or fees for public services. The subsidies, explicitly stated, could be transferred and covered for the final beneficiaries.

Solanda's construction demanded investments in large external infrastructure such as the construction of access roads, and extension of the electric energy, sewerage, and potable water networks. Solanda's construction also demanded the channeling of the Calzado gully (a small tributary of the Machangara River, one of the largest rivers of Quito). This work was financed through cross-subsidies in the consumption fees for potable water.

The cost-recovery policies introduced through the Solanda program were applied strictly to reimburse the costs accrued by BEV. Direct donations were established with this structure based on the cost of the land and construction of public facilities.

Exhibit 1. Cost recovery

Component	Amount ('000s)	Source	% Recovery	Remarks
Land	9,900	None	0%	Donated by Fundación Mariana de Jesús (FMJ)
Urbanization	11,770	Mortgage Loans	100%	BEV Included capital costs; fees; covered meter & connection charges
Housing Solutions	18,310	Mortgage Loans	100%	BEV Included cross- subsidies
Off-Site Infrastructure	11,150	Tariffs	100%	Municipality of Quito
Community Facilities	11,490	None	0%	Donated by Fundación Mariana de Jesús
	62,620	**Total Estimated Project Cost**		
	30,080	**Total to Be Recovered Through Housing Loans**		

Source: USAID Project Paper

[5] The BEV, JNV, and IESS provided loans with highly subsidized rates. These were credits supposedly aimed at low-income beneficiaries. Since there was no similar housing offer for the middle class, these groups ended up being favored by the government programs at the same time as they displaced the comparatively lower-income groups.

Although subsidy and cost-recovery policies were applied for the Solanda case, these did not continue being applied in the future. The administrations in power always brought up housing issues during political campaigns. The continuous currency devaluation process and high inflationary indexes of the sucre took the application of transparent and sustained cost-recovery and subsidy processes that were supposed to focus on the lower-income sector along a very long and tortuous road. Because there were no correction mechanisms that could operate viably in inflationary environments such as that in Ecuador during the 1980s and 1990s, the state programs ended up being unable to recoup their costs in real terms.

2.3 Integrated strategic approach for the development of urban and housing programs

Solanda was planned and carried out through the integrated participation of several institutions and public and private organizations from Ecuador and also through USAID. Each one had defined responsibilities during the planning and execution processes. The programs concentrated on creating processes to alleviate poverty through the support to community, self-help, social assistance, and job generation organizations, among others.

The role of the Fundación Mariana de Jesús (FMJ) was considered fundamental in the organizational and community promotion processes in Solanda. Nevertheless, little is known of the role this organization played with regard to job promotion.

The social and human growth processes have been very successful despite the participation and implementation problems of the social component that might have existed. It is otherwise not possible to understand and recognize how Solanda's population was able to grow so much, both physically and as a community.

The strategic integrated approach for orchestrating urban development and social housing programs, however, was not replicated in the future by other government projects. Only the later coordination efforts carried out by JNV and the Ministry of Urban and Housing Development (MIDUVI) and municipal districts in the cities of Ecuador fit this description—that is, regulations, lowered standards, and better basic infrastructure services were the main focus.

3. Participating Institutions

- **The Junta Nacional de la Vivienda[6] (JNV) (National Housing Board)**, a state entity created in 1973, is in charge of planning and carrying out housing solutions and basic community facilities: public housing, day care centers, and primary schools.
- **Banco Ecuatoriano de la Vivienda (BEV) (Ecuadorian Housing Bank).** Administrator of the resources of USAID's guaranty funds (US$20 million); and provider of loans to project beneficiaries. Contributed counterpart loans equal to approximately US$7.9 million.

[6] The national board for housing policy guidance (planning and implementation). It no longer exists, having been replaced by the Ministry of Urban and Housing Development (MIDUVI).

- **Fundación Mariana de Jesús (FMJ)**, a private, nonprofit organization that donated the land for the Solanda project and was also in charge of providing the social services and leading the job-generation process. FMJ was also responsible for supporting BEV in selecting the beneficiaries. Its contribution was estimated at US$22.83 million (see also Exhibit 1).
- **The Municipio Metropolitano de Quito (MMDQ, or Quito Metropolitan Municipality)** was responsible for approving layout plans, revising the potable water and sewerage system design standards, supplying these basic potable water and sewerage services, and facilitating public transportation systems through agreements with the private sector. Its contribution was estimated at US$11.15 million.
- **RUDO/USAID** offered Loan 518-HG-005 for US$20 million to finance low-cost shelter solutions; plus 518-0030 for nonreimbursable funds equal to US$630,000 in technical assistance and training.

B. Retrospective on USAID's Assistance: Solanda Program

1. Location

The Solanda Integrated Shelter and Urban Development Project is located in the southern sector of the city of Quito (2.2 million inhabitants). When Solanda was established and built, it was on the extreme limits of the city. Explosive urban expansion, which continues to date in the city, has presently located Solanda in a privileged situation with regard to other neighborhoods that have been developed in the alleys near the sides of Pichincha volcano. (See site plan, Photo 1; and panoramic view of the program, Photo 2.)

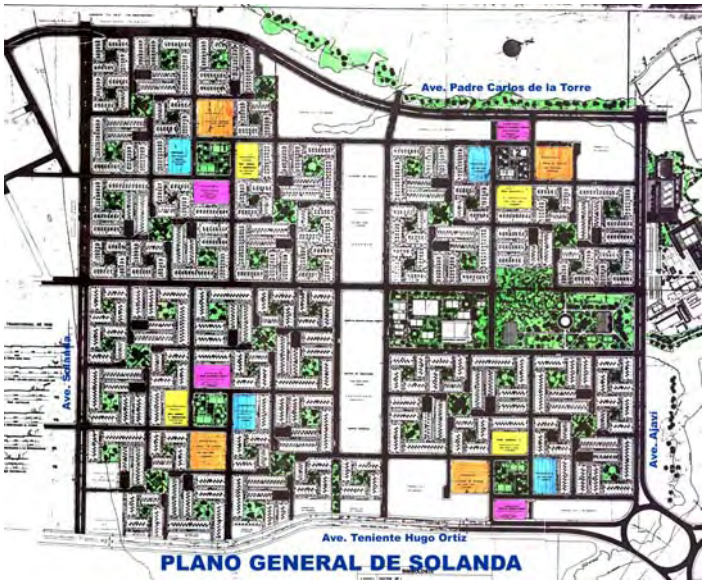


Photo 1. Solanda site plan

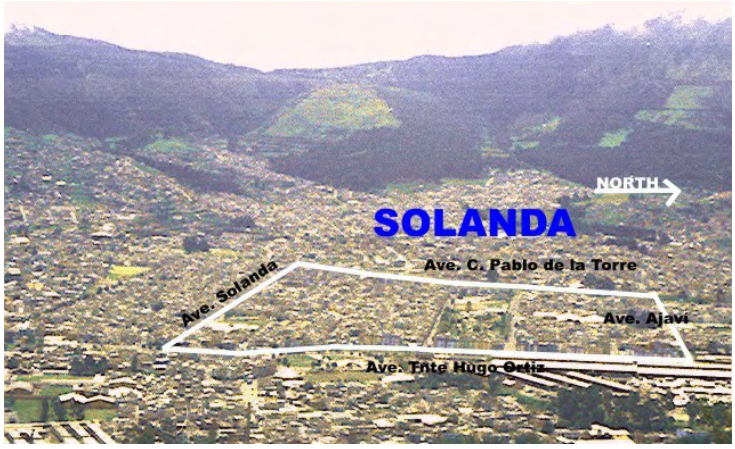


Photo 2. Panoramic view of Solanda

2. The Community

It was indispensable and unavoidable for the researchers to find out about topics in addition to those included in the questionnaires administered in Solanda. During the field visits, observations raised some specific concerns: (1) the enormous population growth since 1986—between 15,000 and 18,000 inhabitants had settled there originally, with that number growing to more than 80,000; and (2) the easiest method for finding the original residents.

We had initially made several assumptions. The inhabitants might have moved to other places in the city that were considered more attractive, motivated by improvement opportunities; or maybe during the past decade they would have joined the migratory currents toward foreign countries. If these assumptions were true, the percentage of original residents still among the current inhabitants of Solanda would have to be very low, and their spatial distribution throughout the extended area of the Solanda program would make it difficult to find them. However, none of these assumptions proved true.

What could have occurred to produce such an important growth in the population? In only 10 years (census from 1990 and 2001), 23,857 new inhabitants became incorporated into Solanda, with a growth rate of 3.4%, higher than the national average of 1.9%.[7] On the other hand, if the original inhabitants really did stay in place, what produced this entrenchment?

We put forward two hypotheses to resolve through group and/or individual interviews with original residents and with new residents:

- There is a preference for living in Solanda—i.e., it has become a "pole of attraction"; and

[7] Taken from census data collected for Solanda by URBANA CONSULTORES.

- The majority of the original families still live in Solanda, for various reasons.

2.1 Solanda as a pole of economic activity

With the purpose of establishing the reasons why people preferred Solanda versus other neighborhoods in the zone and even other sectors considered more attractive in the city of Quito, we tried to find opinions by means of interviews with the most recent residents, an approach that was not considered within the scheme established for this study. Following are some relevant responses, many of them in anecdote form.

Surprisingly, Solanda is considered to be a particularly attractive neighborhood/city in the southern Quito environment, and even considering other higher-income urban areas. All of the persons interviewed were asked the same question, *Why did you come to live in Solanda?* There were many varied responses but all of them involved the standard of life and better comparative opportunities with regard to other nearby neighborhoods:

- "Solanda has everything I need"
- "For the public spaces"
- "For the nearness to all types of facilities"
- "In Solanda one can make friends and communicate with the people"
- "It is a good place to establish a business"
- "There is no need to get out of Solanda"
- "Businesses are open until 10 pm and when I return from work I can even do my shopping and have recently baked bread on my table"
- "It is the southern neighborhood of Quito that offers the best transportation services"
- "I can go and play sports on the weekends"
- "Closeness to educational and sports centers"
- "Community life"

The current President of Solanda's Central Committee, Mrs. Nube Rivera, gave one of the most interesting responses. She has been living in Solanda for 10 years and comes from Manabí Province in the coastal region of Ecuador. She stated that she is the owner of an apartment in north Quito (area preferred by the higher-income population and considered an area of greater development and better urban facilities). She preferred Solanda because *"the people from here* (Solanda) *are not locked up in their houses, they live outside …. The people are more spontaneous and there is much community activity. However, in north Quito, people live within their four walls, go to sleep early and are not even interested in meeting their neighbors…. Here I feel I have more friends and can be more useful."*

The time designated for field investigation tasks left little space to confirm what was observed through interviews with inhabitants from nearby neighborhoods. However,

people such as Polidoro Andrade, a proud inhabitant of Solanda with much knowledge regarding the history of the region, stated: *"This neighborhood is unique in Ecuador and there are only five in Latin America such as this one, where the people live better than many of the rich people."*

2.2 A large majority of the original residents still live in Solanda

Despite the fact that the cost of living and incomes have greatly increased for the families in Solanda and therefore they have the option of going to other residential areas, the inhabitants of Solanda prefer to continue living there.

With the purpose of verifying this statement, we organized a focus group (see Annex 1) composed of original residents. The response of the participants confirmed that between 80% and 90% of the original residents continue living there. Very few have sold out to move elsewhere. Most of the people who have left have done so because of death or migration to Spain or the United States; however, in very few cases did the whole family migrate. Father, mother, or children continue living in Solanda.

Even though at the beginning it meant years of great limitations and sacrifice, these limitations became opportunities for mutual support and organization. The inhabitants of Zone 1 were the first to arrive, by mid-1986. There were no basic services in that zone; nevertheless, they decided to establish themselves there. They had no other option; otherwise, they would have been obliged to pay mortgage payments to the BEV as well as monthly rental payments at the places where they had lived. Many decided to buy the cheaper houses: site, floor, sanitary unit, and roof (there were no doors or windows as there were no walls). Mrs. Bestalia Chillán Mejía related that like many other families, they lived with cardboard around their shelters (Floor & Roof) to protect themselves from the cold weather, rain, and dust, as well as for safety reasons. For quite some time, they lived in darkness due to the lack of electricity and they could hardly receive sunlight. They confessed that the inhabitants of Zone 1 had to steal energy from the public networks and in many cases, extend pirated electrical lines more than 2 km away.

The funding processes for carrying out the first adjustments and expansions were very innovative. When these were low-income families that had to cover a mortgage, they resorted to "quirografario"[8] loans, granted to them by the Social Security Institute of Ecuador; or to small family or group revolving loans. In the case of Floor & Roof solutions, the BEV opened the possibility of granting further loans over the original mortgage, providing they could prove that their income had improved. The majority were not able to access this assistance. This was when the revolving loan funds were invented. These began as a family type to expand to larger groups. Each family contributed money toward the fund. The proceeds were handed over as a "draw" to each one of the members of the "round." Once repaid, the funds were passed on to someone else. No problems were detected with regard to payment compliance.

[8] *Quirografario* loans are credits for small amounts, generally granted with the guarantee of a signature or withholding charged to the monthly payroll.

As a result, because of the long-term struggle and despite all the adverse situations, no one ever thought of selling or abandoning the place; they had been able to obtain what they considered "*their equity, to have their own house.*"

"It has to do with our own house"; "Never before nor much less nowadays could we ever make the decision to leave Solanda; this is the result of our struggles," said María Chicaiza. Her stories are here, in the streets, sidewalks, parks, and meeting places. They also are evident in the public places and in each one of the houses, where you can still perceive the results of more than 20 years' worth of struggle and achievements. Here they have developed their sense of belonging, ownership, identity, and deep-rooted feelings.

"The people who come to live in Solanda do so because of the basic services, because here one can find all of the facilities (wholesale market, transportation, green areas, and businesses)," says Mrs. Rosa Galeas. "The people who live here do not need a car and this results in great savings," she concluded. The focus group also believed that the new residents are attracted because there are good business opportunities.

They are of the opinion that Solanda lacks nothing. The majority of the problems are related to:

- Juvenile gangs. Once a decision was made to place security doors at the entrances of the "super-blocks" (spaces beneath the bridge-type housing), and to increase the presence of the police, the negative effect of gang members was reduced.
- Danger derived from obsolete electric energy distribution networks.[9] It is imperative to change the energy distribution system. There is a plan under way to move the cables underground.
- The lack of order in the traffic and irresponsible drivers, especially bus drivers, using Solanda's streets. Traffic lights and pedestrian crossings must be installed at the intersections of the main thoroughfares.
- The little or nonexistent capacity to create parking areas for private vehicles.
- The explosive population growth that has occurred throughout the years and the incorporation of new residents has produced other effects. It is believed that this is the reason that the union and cohesion indexes among the citizens have decreased notably. The President of Solanda's Central Committee feels that this lack of unity stems from poor administration in the past.[10]

2.3 Conditions of community life

The survey results coincide with the opinion of the citizens interviewed in the streets and the focus groups. This finding makes sense; for the original inhabitants of Solanda, the living conditions of the community have improved significantly. The most recent

[9] The electricity network is very close to the windows of the top floors of the houses because of the unforeseen use of vertical spaces. The nearness to the networks has produced several deaths from electrocution.

[10] During the past years, the boards of the Central Committee were in the hands of the Movimiento Popular Democratico (MPD), an extreme left-wing party.

residents state that they have been attracted by the facilities and community services, better organization, greater business opportunities, and public transportation.

Originally, there were no community services in Solanda. Basic facilities such as schools, day care centers, public housing, firefighters, public transportation, and even communication services were not available to the inhabitants. Zone 1 was the first to be settled, long before the potable water, sewerage, and electric energy services existed. The telephone services, which were of very poor quality, were not included as part of the project.

Solanda was populated gradually, starting in 1986. Below is a summary of past and present conditions:

- **Roads system.** The roads and sidewalks have been improved systematically from the beginning of this program to the present. All the roads are fully paved and in good condition for cars and public transportation. Sidewalks and pedestrian paths in public spaces are in a good state, although these could be improved to some degree. The pedestrian paths towards the interior of the super-blocks are somewhat deteriorated due to heavy use and complete lack of maintenance on the part of the neighbors. (See site plan, Photo 1; and photos of the road system, Photos 4 to 10.) The road system presently serving Solanda is in excellent condition. There are large interconnecting roads in all directions with all of the nearby neighborhoods and with the rest of the city.

  Two thoroughfares lead to nearby Solanda: Vencedores de Pichincha on the western side and 2 km from the site of the project; and la Avenida Teniente Hugo Ortiz, under construction, toward the eastern side.

Photo 3

Photo 4

Photo 5

Photo 6

Photo 7

Photo 8

Photo 9

Initially, half of the internal roads were paved and the rest were made of concrete and dirt blocks. The sidewalks of the main avenues were paved with concrete.

Presently, 100% of the internal roads are paved.

- **Transportation system.** Together with the road system, the transportation system is one of the most improved systems for Solanda. On the Ave. Teniente Hugo Ortiz there is an integrated trolley-bus system. It works on electric energy and operates from 05:30 up to 24:00 hours on ordinary days. The trolley-bus system is enhanced by a bus network through which all of the inhabitants of the sector, including Solanda, can pay for one ticket and transport themselves round trip to any point in the city of Quito. Quito now has three integrated massive trolley transportation systems. These allow Solanda to have a quick and easy connection to different destinations (see photographs 11, 12 and 13).

  There also are at least 10 bus lines that go to and from Solanda.

  Taxis and private cars also allow access to different destinations.

  Ninety percent of the inhabitants acknowledged the bus system as the most suitable to go to different destinations.

- **Garbage collection system.** Garbage is collected by the Compañía Municipal de Aseo (EMASEO) (Municipal Garbage Collection). The garbage collecting trucks come three times a week (Monday, Wednesday, and Friday) during the low-traffic periods. The collection system is categorized as “very good”; however, there are insufficient garbage containers for pedestrians on sidewalks and in public areas. On the other hand, there are no organizations that have taken on the task of educating citizens about adequate individual and collective garbage management.

  The municipal collection system covers 100% of the houses located in Solanda. To facilitate service to internal areas (interior of the super-blocks) where vehicle access is not possible, the garbage is collected via tricycles (see photograph 14), which coordinate with the garbage collecting trucks for final disposal.

Photo 10

Photo 11

Photo 12

Photo 13

Originally, there was no garbage collection system in place. The inhabitants had to think of ways to incinerate trash, dispose of it in the ravines, or simply throw it into areas designated as open spaces. Once the majority of the original inhabitants had settled in Solanda and the access roads were opened, the municipal system came on a regular basis.

- **Community facilities.** Facilities could be one of the greatest success stories in present-day Solanda. It has a great number of community facilities and concentrated social services: There are more than 18 preschool and primary education schools, 8 secondary education schools, one higher-education institution, 4 health centers and private clinics, public housing, a police station equipped with 41 law enforcement agents, 2 Catholic churches, adult educational centers, a post office, and an internal public market. Quito's wholesale market is right next door to Solanda, which allows the inhabitants to buy at comparatively low prices and directly from the producers. There is one private supermarket of the Super-Tía chain.

  In sports and recreation, Solanda is a privileged place. It has very large public spaces (parks), an Olympic stadium, football fields, and recreational spaces. It

also has “lineal” parks and ornamental zones located along several major avenues: Cardenal Pablo de la Torre, Ajaví, and Teniente Hugo Ortiz.

There is no doubt that these types of facilities place Solanda among the most desirable places to live. Furthermore, all of the facilities can be found within a short walk, giving it a quality often attained only in small towns: a collegial environment in which people get to know each other and establish friendly relationships. (See photographs 15 to 25.)

- **Public lighting system.** The lighting system has been under development since the beginning of the program. Although it has been operating adequately according to its design and original ideas (to be an inexpensive system), it has not improved in the way the neighborhood in general has improved. The exception could be found in the main arteries of the Solanda program, where modern lights have been installed in accordance with the ornamentation that has been placed in public spaces.

  At present, the public lighting system and electric energy distribution networks constitute the greatest problems faced by Solanda. As explained above, the expansion has tended to move toward public spaces that were annexed in a de facto manner by the inhabitants, which means that residences are far too close to high-tension wires. The risk of electrocution has increased dramatically, as evidenced by more than eight casualties among people of various ages.

  The electrical networks are supported by reinforced concrete posts. With the increase in residential and apartment spaces, new lines for electricity, telephone service, and cable services have also increased in an explosive manner. The wiring network has turned into a true spider web.

  The Empresa Eléctrica de Quito (EEQ), the inhabitants of Solanda, and the Quito Metropolitan Municipality have arrived at an agreement to put an end to this problem. The project is ready to introduce an underground system. It will have a cost of US$500,000 and be carried out in four phases. Financing will be as follows: the inhabitants, 30%; Municipality of Quito, 50%; and EEQ, the other 20%.

- **Security system.** Delinquency produced by juvenile gang members constitutes one of the greatest problems faced by the Solanda society. Although juvenile violence has not reached an extreme, the people believe that it stems from a lack of opportunities in general, and perhaps from the lack of opportunities to take responsibility for special issues that could be handed over to the youth leadership. There are differences of opinion regarding strategy formulation in order to eliminate this problem.

  The parents believe the most dangerous possibility is that the gangs could lead the youth toward drug consumption.

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

Photo 21

Photo 22

Photo 23

Photo 24

The board of directors of Solanda's Central Committee believes there are ways of alleviating the situation; one of these is achieving the participation of youths in specific responsibilities within the community.

On the other hand, to take care of its security requirements, the community achieved the construction of a police station staffed by 43 law enforcement agents. This unit has two vehicles and bicycles to facilitate security activities. Unfortunately, there are no community surveillance organizations in place to help with this process.

Mrs. María Gangotena (23 years old), who is employed at a delicatessen in the commercial sector of J Street, stated that she had never had problems with gang members. She believed that the society is alarmed because they have overstated the problem. She added that now that she has children she cannot go out and have a good time with other young adults. She was a gang member up until a short time ago.

- **Public spaces.** The MMDQ has built well-conceived ornamental areas around Solanda, such as the lineal park near to Ave. Cardenal Pablo de la Torre and the lit water fountains toward the traffic circle at Ave. Teniente Hugo Ortiz. These elements contribute to the increased self-esteem and sense of a good life of the inhabitants in that zone. (See photographs 26 to 31.)
- **Businesses.** Although the survey showed that 28% of the families rented space for their stores, **we believe that at least 40% of the total buildings** have businesses installed in their own spaces or through rental (bazaars, neighborhood stores, barbershops, bakeries, food stores, music stores, stationery shops, ice cream shops, etc.). Commercial shops are seen throughout Solanda.

  There are many stores, particularly on the main streets toward the interior of Solanda. An example of this is "J" Street (José María Alemán street), where all of the original structures have been completely transformed and adapted to set up restaurants, Internet cafés, drugstores, boutiques, delicatessens, cafés, shoe and clothing stores, etc. José María Alemán Street has become an authentic commercial center. Businesses open at 9:00 am and close at 22:00 hrs. Solanda also has its own food markets and supermarkets (Super-Tía chain stores). (See photographs 19, 20, and 32 to 37.)

Photo 25

Photo 26

Photo 27

Photo 28

Photo 29

Photo 30

Photo 31

Photo 32

Photo 33

Photo 34

Photo 35

Photo 36

3. Housing

3.1 Constructed area

The number of different types[11] of solutions built in Solanda (see Annex 2) was 6,211, many more than the 5,000 originally foreseen shelters. Among these, 42.25% were very-low-cost solutions, 622 were Sites & Services, and 2,002 were Floor & Roof. Also, 1,527 (24.95%) different types of basic units were built, including bridge solutions (located on the second floor over the pedestrian access to the super-blocks); and 2,060 (33.17%) units were built in the range of 40 to 72 m^2 (see Annex 2).

The Site & Services units included sanitary installations, potable water, electric energy, and a plot of land with a sanitary unit of 11.82 m^2. The Floor & Roof solutions consisted of an urban plot of land, a sanitary unit, a reinforced concrete structure, and an asbestos cement cover.

In total 4,151 very-low-cost solutions were built, which is equal to 67% of the total construction. It is worth mentioning that planning and designs complied with the objectives, which were to reach the lowest economic strata, or 30% of the population.

[11] Data obtained from the general alphabetical listing of final recipients of the Solanda plan, provided by Lcda. Gladis Orozco, BEV Portfolio Directorate.

Based on the information coming from cost settlements and BEV's sales pricing (1997), the following could be verified:

- The total area of habitable solutions was 223,035.83 m^2; and
- The total sales prices in the built-up area amounted to US$13,487,320.40,[12] excluding the cost of urban infrastructure.

3.2 Urbanization

The Solanda project was located on a property of 158.14 ha belonging to Mrs. Marieta Urrutia, who donated the land for the development of a massive low-cost housing project. Of the total, 86.5 ha were designated for the project (see Annex 3), of which 389,473.53 m^2 (45.04%) were designated as lots for shelter solution constructions (useable area). The remaining 475,309.07 m^2 (54.96%) were used for shared facilities, green areas, sports areas, roads, sidewalks, and parking lots.

Similarly, it could be determined that the total price of the useable urbanized area (saleable area) amounted to US$11,885,834.19 in 1978 (US$ 26.81 per square meter) at 1987 prices.[13]

3.3 Current value of Solanda's original solutions

Because of a lack of full information and because of the multiple combinations that existed regarding the types of sites and solutions, it was not possible to establish the value of the pertinent sites for each type of solution. However, the total sales prices in U.S. dollars at the selling rate of exchange (sucre vs. U.S. dollar) valid in 1987 could be established for 6,211 solutions and total useable areas with the existing information, as follows:

Total sales price of solutions	US$13,487,320.40
Total sales price of useable areas	US$11,885,834.19
TOTAL PRICE in 1987	US$25,373,154.59 (*)
CURRENT PRICE in 2005	US$37,104,483.69 (**)
Current total price (2005) of solutions	US$20,150,008.30
Current total price (2005) of urban development	US$17,757,393.65

* Equal to the total purchase price for the 6,211 beneficiaries of the Solanda program.

** Updated value calculated on the annual inflation indexes of the dollar since 1987 and brought to present day value for 2005; this was done considering the dollar's inflation value from 1987 to the present year (see Annex 4).

[12] Established in 1987 sucres and converted to U.S. dollars for that same year at an exchange rate (selling) of 170.97 sucres per dollar.
[13] 1987 was the year of costs statements and sales pricing.

3.4 Increase in the value of related assets of Solanda's original beneficiaries

For this analysis, we started from a gross estimate and made a comparison with the physical growth (area) declared by the 98 interviewed persons during the field work. The results of the survey showed the following:

- 100% of the interviewed persons have made expansions
- 4.1% have added another floor
- 58.2% have added two floors
- 24.5% have added three floors
- 4.1% have added four floors.

For the purpose of our analysis, we adopted these percentages, which we considered a very conservative scenario. We realize that the sample is not representative of the total growth levels. It seems that a lower percentage (less than about 5-10% of the total) has not carried out expansions of any sort; another group of about 10-15% has added five or six floors. No other investments in improvements in the original area have been included, such as demolition, floor improvements, paint, bathroom renovation, etc.

Considerations:

- The families that added one floor built it over a space representing 50% of the original area.
- The families that added two floors built it over 1½ times the original area.
- The families that added three floors built it over 2½ times the original area.
- The families that added four floors built it over 3½ times the original area.

The following step was used to establish the expansion/construction areas for each previously mentioned group. Once these total growth areas had been established, based on the previously mentioned percentages and considerations, we could then easily establish the increases in true value with regard to the present market prices for the urbanized land as well as for the types of buildings developed.

Rather conservative market prices were applied for the sale of urbanized land in the zone and for construction per square meter: $70 per square meter of urbanized land and $180 per square meter of construction. The results were amazing (see Annex 5). The increase in true value of related assets for Solanda's original owners was at least 279.1% compared to the updated 2005 value of the original equity of US$35,748,496. Note that to arrive at these overwhelming figures, the current values have been subtracted from the purchase price of the original units.

The data can be summarized in the following manner:

Present value of originally acquired assets	$35,748,496.83	100.00%
Present value of current assets	$135,518,047.91	379.09%
Increase in value of assets at current prices	$99,769,551.08	279.09%

3.5 Types of solutions

Various types of solutions were adopted to fit families of different sizes and varied income within the relatively lower-income family environments. Exhibit 2 refers to the most distinctive characteristics of these original types of solutions.

Exhibit 2. Types of solutions

Solution Code	Solution Type	Area (m^2)	Solution Number	%	Construction Area (m^2)
A1PT	Floor & Roof	24.11	1012	16.29%	24,399.32
B1PT	Floor & Roof	24.12	97	1.56%	2,339.64
C1PT	Floor & Roof	24.12	893	14.38%	21,539.16
LUS	Lot & Sanitary Unit	11.88	622	10.01%	7,389.36
BRIDGE	Bridge Unit	24.12	703	11.32%	16,956.36
LUV-2B	Two-Story	72.00	113	1.82%	8,136.00
A1	Two-Family	66.85	646	10.40%	43,185.10
A2	Two-Family	66.85	2	0.03%	133.70
A3	Two-Family	66.85	69	1.11%	4,612.65
B1	Two-Family	54.80	175	2.82%	9,590.00
B2	Two-Family	54.80	178	2.87%	9,754.40
B3	Two-Family	53.10	174	2.80%	9,239.40
B'1	Two-Family	54.80	136	2.19%	7,452.80
B'2	Two-Family	41.22	130	2.09%	5,358.60
B'3	Two-Family	53.10	134	2.16%	7,115.40
C1	Basic Unit	24.11	427	6.87%	10,294.97
C2	Basic Unit	24.11	3	0.05%	72.33
C3	Basic Unit	70.55	42	0.68%	2,963.10
D1	Basic Unit	54.80	212	3.41%	11,617.60
D2	Basic Unit	41.22	222	3.57%	9,150.84
D3	Basic Unit	53.10	221	3.56%	11,735.10
			6211	**100.00%**	**223,035.83**

Prepared by: Renan Larrea

3.6 Shelter data

All of the interviewed persons were original owners. Among them, 58% acquired Floor & Roof solutions (A1PT and C1PT) and declared having paid US$1,526 on average for this type of solution. The remaining 42% acquired several types of solutions, between urbanized sites (lower cost) up to the most expensive LUV-2B units – two storey bridge units.

For the lead field researcher for the retrospective, who was well-versed regarding the origin of the Solanda program and particularly some types of solutions implemented under this plan, it was an element of personal interest to find out the true value of the Floor & Roof solutions from the perspective of the persons who acquired them.

For an independent observer, at the time that the decision to build units of this type was adopted, the idea seemed inconvenient from every perspective: These units were going to be demolished to build other houses. The potential loss of resources was evident to those who anticipated this outcome. Time passed, and only a very few houses were left standing (less than 3%). Fifty-eight percent of the interviewed persons—in other words, 100% of the families that acquired these types of solutions—declared they had been demolished.

But why did they acquire them? And what good was it to have bought these units only to demolish them and thus throw away a good part of the money they had paid for the purchase?

The answer to these questions was quick to come. Within the focus groups, we found out which solution these residents felt was the best of all: the **Floor & Roof.** It was one of the cheapest, they could shelter themselves from inclement weather (see Section B 2.2), the units were wider and therefore could house a larger number of people, and they were suitable for more adaptation and growth options. Also, after the original function had been achieved, it was much cheaper to place a cover on the floor and start building a new shelter and further additions.

- **Financing.** 84.7% of the interviewed people said they had financed the original purchase of their homes with BEV mortgage loans. They paid 25% of the initial quota with own resources and family credit.
- **New loans with mortgage guarantees based on acquired properties.** No properties have been used to leverage new loans, except in a very few cases. Of these respondents, 70.4% never requested a new mortgage loan using their property as a guarantee; 29.6% did resort to this type of credit, particularly from the IESS. This state entity granted second-mortgage loans. Many of the beneficiaries who were original-solution buyers could access more credit, pay off the original mortgage with BEV, and still have resources remaining to build expansions. A sizable proportion—82.2%—selected one of 29 valid answers indicating that they had expanded their homes with these types of credits.
- **Subjective value of current solutions.** A large part of the families interviewed expressed a substantial emotional attachment to their properties. About a third, or 29.5% of them, believed that their properties ranged in value between $40,000 and $50,000 at current prices; however, 28% of them believed that similar properties ranged in value between $20,000 and $30,000. It is probable that the true value is found between these two groups of figures.

3.7 Modifications to the solutions

Most solutions executed under the program complied with the objectives originally established and facilitated the growth of family resources. All the interviewed families carried out substantial modifications and investments, such that $135.7 million would be the current value of the total assets, representing an increase of about $99.8 million in 20 years.

- **Expansion and demolition.** More than half (58%) of the families demolished the original solution to build another one. This percentage represents 100% of the owners of Floor & Roof solutions. Another two-thirds (78.6%) declared having modified the original structure of the solution to expand on the housing area available to them; however 5.1% had initiated expansions to establish their own business.

  Most of the solutions have undergone significant modifications and expansions with regard to the original solution. The majority of the solutions that have been modified are the Floor & Roof and the Sites & Services units. Nearly all of the owners of the bridge-style solutions have expanded vertically up to four floors. The bridge-type solutions have no land, just buildings that form a type of arch over the pedestrian accesses towards the interior of the super-blocks. They built expansions from the second floor up (see Photos 46 and 47 further below). The two-family houses (between blocks) and three-family units (corners) have not been able to add major growth due to legal problems in connection with horizontal properties; however, in many cases the owner of the top floor has built expansions on the third floor. In general, the expansion of the solutions is a common denominator in Solanda and the process continues to date (see Photos 38 to 52).

Photo 37

Photo 38

Photo 39

Photo 40

Photo 41

Photo 42

Photo 43

Photo 44

Photo 45

Photo 46

Photo 47

Photo 48

Photo 49

Photo 50

Photo 51

- **Timing of modifications.** A 69% majority carried out modifications during the course of the first two years, after the site of the program had been installed. At least 43.1% made modifications during the first year that were obligatory under the circumstances; 58% had acquired Floor & Roof solutions. On the other hand, 65.1% of the families had acquired Sites & Services and Floor & Roof units, which coincides with the 69% who were able to make modifications during the

first two years. These figures are consistent with the need to build habitable solutions for these groups of families.

The promoters of the Solanda plan (BEV and FMJ) had been subject to suspicions for the alleged poor selection of beneficiaries. It was adduced that relatively higher income families had been awarded solutions that had been designated for those in the low-income social strata. It was believed that the proof was the immediate modifications that took place.[14] If these suspicions had been true, the social stratum that took possession of the most expensive solutions would have been the first to initiate the growth changes. However, this study shows it was not so. On the contrary, it was the families that opted for the Floor & Roof solutions and the urbanized sites that, due to the circumstances, initiated the first efforts to turn their solutions into habitable spaces.

- **Funding the modifications.** Of the 58 respondents, 55.1% initiated their construction effort with their own resources and the process lasted several years. They resorted to small revolving credit funds (see section B 2.2) that operated through groups of friends and families; as well as *quirografarios* (signature) credits (explained above).
- **Resident families.** Originally the solutions were occupied by only one family (98%). At present, this figure has been modified, although the measure of how the spaces and constructed areas have grown has not: 71.4% of the buildings continue to be occupied by a single family; 18.4% by two families; and in the remaining 10.1%, three to five families.
- **Housing functions.** Together with the physical growth of the homes came the increase in useable spaces, such as the number of bedrooms, kitchens, living rooms, etc., and with these grew the number of home comforts. The standard of living also grew. The structural growth was directly proportional to the families' needs to have comfortable living areas. It is worth stating that the useful habitable spaces increased proportionately with the growth of the structures and the floors of the buildings.

  The numbers of floors between the beginning of the program and the present have enormous contrast, as can be seen in Exhibit 3.

[14] Suspicions regarding changes made to qualifying beneficiaries' socioeconomic information were noted in various reports at the time, including *The Solanda Project Evaluation* by PADCO (1989).

Exhibit 3. Number of original and present floors

	Number of Floors	Cases	%
Original			
	0	33	33.70%
	1	58	59.20%
	2	7	7.10%
Current			
	0		
	1	13	13.30%
	2	57	58.20%
	3	24	24.50%
	4	4	4.10%

Another indicative item was the increase in spaces dedicated for commercial use; originally there were no spaces dedicated to stores or shops, with the exception of one case, out of the interviewed people, of a person who had installed a little shop. Presently 30% have dedicated spaces built for commercial purposes.

3.8 Rental income

Family income and the standard of living of the population is also sustained on the rental income from habitable spaces. About 21% of the families interviewed rent rooms out to third parties, for which they receive significant income, although very variable (between US$30 and US$240 per month) for renting out one to four rooms.

3.9 Other assets

We can also verify that the standard of living of the beneficiaries of the Solanda program grew. In addition to the process of constructing expansions and making adjustments in the structures and in the living and commercial spaces, what also grew were the comfortable lifestyle and ownership of appliances. This means that purchasing power increased and income must have increased also:

- Of the families interviewed, 66 families (67%) originally had a refrigerator; nowadays 89 families (90.8%) have a refrigerator and 9.2% have more than one in their home.
- Nobody had a microwave oven originally, while at present 42.9% have this appliance.
- A washer was only available to 3 families (3.1%) at the beginning. At present, 46 have one (46.9%).
- Three families had vacuum cleaners (3.1%) at the start, whereas today 26 families have one (26.5%).
- At the outset, 89.8% had one or two television sets; nowadays, 45.9% have one television, while 53% have between two and five sets.

- A substantial majority (91.8%) of the interviewed persons did not have a videocassette player; now 62.2% have more than one.
- Thirty-three families had bicycles (33.7%); today, 55 families have at least 4 bicycles.
- Fourteen families had cars and now 34 families own their own car.
- Only one family owned a computer when they came to live in Solanda; now, 32 families (32.6%) have at least two computers.

3.10 Basic services

- **Potable water and sewer and stormwater systems.** As mentioned before, with the exception of the families that settled in Zone 1, all of the rest had basic potable water and sewerage services, through public pipelines. They had access to these two services from the first day they arrived in Solanda.

  Opinions regarding the quality of the water varied considerably:

  – Originally 89.8% believed that it was normal and 10.2% said it was good.

  – At present, 3% stated that it is normal and 96.6% said the service is good.

  The perception with regard to sewerage services coincides with the above:

  – Originally 86.7% thought it was good and 5.1% that it was bad

  – Presently, 93.9% think it is good and the remaining 6.1% think it is normal.

  This is understandable since the service is continuous and the water supply system has ISO 9000 certification.

- **Electric energy and public lighting.** As with the other services, Zone 1 in Solanda did not have electric energy services to begin with. This explains the fact that a lower number of interviewed persons (9.2%) stated they had no electric energy services. The electric energy services were and still are being supplied by the energy company, Empresa Eléctrica Quito SA.

  The perceptions that the interviewed persons had regarding the quality of this service were as follows:

  – Originally 80.6% considered it was good, 11.2% that it was bad, and 8.2% that it was normal.

  – The current figures are not much different: 90.8% consider that it is good, 1% believe it is bad, and 8.2 % consider it to be normal.

  The explanation for these findings was detailed under Section B 2.3.

- **Telephone services.** At the beginning Solanda had no telephone networks. The infrastructure construction had not been planned with telephone in mind. It is worth mentioning that the present services are on the increase. Presently 99% of

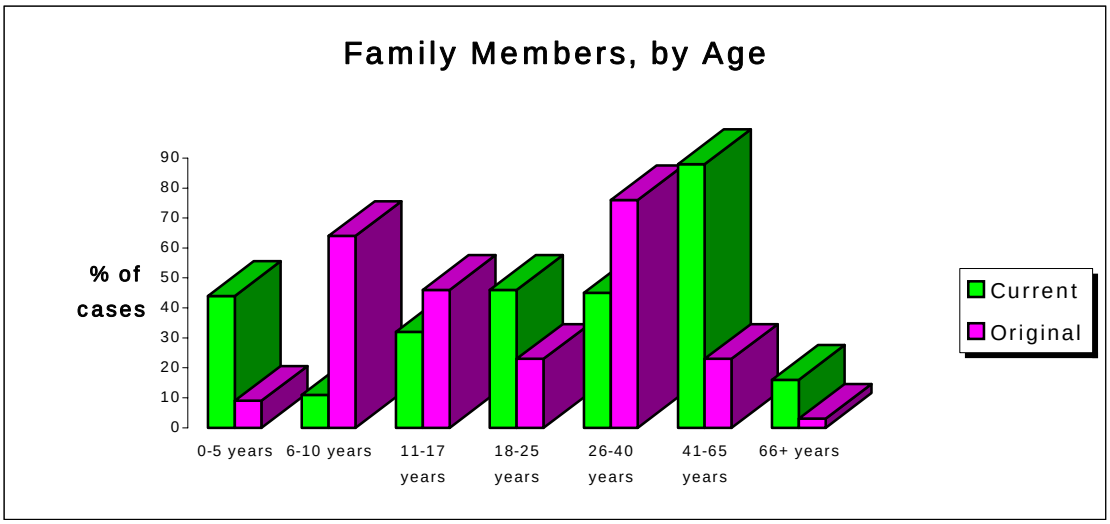
the cases interviewed had telephone services at home. With the exception of one case, the remaining 97 interviewed persons had telephone services.

4. Family Situation in Solanda

4.2 Family composition

- **Age of the family members.** Exhibit 4 shows the range of ages.

Exhibit 4. Family members, by age



Prepared by: Renan Larrea

- **Members of the family, relationships, sex, levels of education, ages.** The number of household representatives interviewed was 98; 100% were original owners and residents of Solanda. The group of families interviewed represented a total of 397 persons—in other words, an average family of 4.05 persons per home.

  The heads of household who were interviewed were mainly men (91.8%); women carried out this function in only 8 out of the 98 cases that were interviewed.

  The age of the heads of household ranged mainly between 46 and 60 years (70.3%); 21 heads of household were between 61 and 80 years of age.

  The heads of household were characterized mainly by not having taken university courses, except for very few cases. Only 16 (16.30%) out of 98 achieved university studies; 33 (33.70%) finished primary school; and 37 (37.80%) finished secondary school.

  The next grouping of family members was composed primarily (81.60%) of spouses or partners (96 cases); 93.20% of the cases were women whose ages ranged between 31 and 60 years.

The levels of education to which the spouses had access were similar to the levels for the heads of household. This means that men and women had similar educational opportunities up to the levels of primary and secondary education in the majority of the cases. The spouses with primary education were 28.6%; secondary education, 41.6%, or greater than for the heads of household; and 14.30% (14 cases) finished university.

The next group of family members consisted mainly of children of the heads of household: 199 sons and daughters made up the universe of this group; in other words, an average 2.03 children per family yielded an average size per family equal to 4.01 persons (see Annex 6).

This group of children was mostly boys (54.77%) with girls making up 45.23%. They reached higher levels of education than their parents (see Exhibit 5).

Exhibit 5. Education levels of children

Children's Education	Number	%
Primary	4	2.00%
Secondary	49	24.50%
Intermediate Technical	52	26.00%
Higher Education	57	28.50%
Postgraduate	38	19.00%
	200	**100.00%**

Prepared by: Renan Larrea

We can confirm that the levels of public facilities, particularly primary, secondary, and higher education centers; the short distances from Solanda to where those learning centers are located; and the transportation services that exist in Solanda contributed in a very significant way to achieving the present levels of education. As described later on, the increase in the families' levels of income also contributed so that the generations following the original groups of parents in Solanda could reach appropriate levels of education.

A final group of family members was made up of nephews/nieces and other family members, 7 in total, a figure that for purposes of this analysis is not significant.

5. Family Economic Activity

5.1 Employment: occupation of the heads of household and their spouses

Despite a significant decrease in external employment over time—from **95.9%** at the beginning to **71.4%** at present—the heads of household continue being the primary means of support of the families in Solanda. Together with their spouses, who are mainly women, they make the greatest contribution to the family economy. In the case of the spouses, there has been an important increase in the work indexes: The 2005 results indicated that **41.8%** of the spouses had work, versus **30.6%** at the beginning.

The reasons for being unemployed corresponded to retirement by the heads of household[15] in **19.4%** of the cases. Closing down of companies and illnesses appeared to be only marginal. The spouses, on the other hand, did not claim to be retired; instead, **52.0%** said they do housework.

The original main occupations of the heads of household and their spouses were similar to those they held at the time of the interview: laborers, artisans, drivers, businessmen or women, technicians, teachers, police officers, etc. There also is an important contingent of university professors (8.6% original and 7.1% at present among the heads of household).

Originally, **80%** of the heads of household were self-employed (31.4% employed by the government and 48.6% privately employed). Presently, this proportion has varied quite significantly: **57.1%** continue being employed by others (21.4% as government employees and 35.7% working in the private sector). Similar increases can be seen among the spouses: In **73.3%** of the cases, they were working for someone else (23.3% with state entities and 50% with the private sector). The 2005 figures had decreased significantly, to **45%** (see Exhibit 6).

Exhibit 6. Employer and location of businesses: heads of household and spouses

			Head of Household		Member 1	
			No.	%	No.	%
Employer	**4.1**	**Original**				
		Government	22	31.40%	7	23.30%
		Private	34	48.60%	15	50.00%
		Self-Employed	14	20.00%	8	26.70%
	4.2	**Current**				
		Government	15	21.40%	5	11.90%
		Private	25	35.70%	13	33.30%
		Self-Employed	30	42.90%	23	54.80%
Location of External Employer	**5.1**	**Original**				
		At Home	5	7.10%	4	13.30%
		In Neighborhood			2	6.70%
		In the City	60	85.70%	22	76.70%
		Outside of the City	5	7.10%	1	3.30%
	5.2	**Current**				
		At Home	12	17.10%	14	33.30%
		In Neighborhood	1	1.40%	4	9.50%
		In the City	56	80.00%	23	54.80%
		Outside of the City	1	1.40%	1	2.40%

[15] In Ecuador, retirees lose their employed status and it is customarily said that they are "no longer working." Generally, however, the retirees must continue to work in order to subsist because retirement payments are extremely low. Self-employment is very common among such retirees.

			Head of Household		Member 1	
			No.	%	No.	%
Location of Own Business	**11.1**	**Original**				
		At Home	4	36.40%	2	33.30%
		In Neighborhood	3	27.20%	2	33.30%
		In the City	4	36.40%	2	33.30%
		Outside of the City				
	11.2	**Current**				
		At Home	11	47.80%	17	85.00%
		In Neighborhood	3	13.00%	1	5.00%
		In the City	8	34.80%	2	10.00%
		Outside of the City	1	4.30%		

Prepared by: Renan Larrea

While external employment decreased sharply, self-employment *increased* significantly. The independent work of the heads of household more than doubled, from **20%** originally to **42.9%** in 2005. Likewise, spouses' self-employment registered a dramatic increase from **26.7%** at the beginning to **54.8%** in 2005 (see Exhibit 6).

Concomitantly, the economic activities of the families grew within the program (measured in terms of both house and neighborhood). For the heads of household, they grew from **7.1%** originally to **18.5%** currently; for spouses, this increase was between **20.0%** originally and **42.8%** currently.

The growth in economic activity in the neighborhood and at home explains the increase in job opportunities and individuals' establishment of their own businesses in Solanda (see Exhibit 6). There is no doubt that Solanda is a "pole of attraction," as was mentioned earlier. To this we also add that the establishment of own businesses increased as well, from **66.5%** to **90.0%,** even accounting for the slight decrease in this category among heads of household. This is understandable because the majority of the people interviewed were couples and those who maintain the family business normally are not the heads of household.

5.2 Income from the heads of household and spouses

The income structure (Exhibit 7) for the heads of household with regard to outside employment underwent a very important change between the two time periods under observation.

Exhibit 7. Income of heads of household and spouses

			Head of Household		Member 1	
			No.	%	No.	%
Monthly Income from Outside Employment	**6.1**	**Original**				
		Less than US$100	2	18.20%	17	60.70%
		$100 to 200	4	36.40%	5	17.80%
		$200 to 300	2	18.20%	4	14.30%
		$300 to 400	3	27.20%	1	3.60%
		$400 to 500			1	3.60%
		$500 to 700				
		$700 and greater				
	6.2	**Current**				
		Less than US$100	3	4.30%	7	16.70%
		$100 to 200	12	17.10%	18	42.90%
		$200 to 300	21	30.00%	7	16.60%
		$300 to 400	13	18.60%	5	11.90%
		$400 to 500	8	11.40%		
		$500 to 700	11	15.60%	4	9.50%
		$700 and greater	2	2.90%	1	2.40%
Monthly Income from Own Business	**12.1**	**Original**				
		Less than US$100	6	26.60%	2	40.00%
		$100 to 200	4	17.40%	2	40.00%
		$200 to 300	4	17.40%	1	20.00%
		$300 to 400	3	13.00%		
		$400 to 500				
		$500 to 700	3	13.00%		
		$700 and greater	3	13.00%		
	12.2	**Current**				
		Less than US$100	3	4.30%	6	30.00%
		$100 to 200	12	17.10%	7	40.00%
		$200 to 300	21	30.00%	4	20.00%
		$300 to 400	13	18.60%	2	10.00%
		$400 to 500	8	11.40%		
		$500 to 700	11	15.60%		
		$700 and greater	2	2.90%		

Prepared by: Renan Larrea

Among the heads of household, none earned more than US$400 during the original period; a 36.4% majority had monthly income between $100 and $200.[16] Of the recent interviewees, **51.4%** reported income of up to US$300; the remaining 48.6% present said they had income between US$300 and US$700 or more.

Likewise, for the most part (26.6%), the heads of household who owned their own business initially reported receiving monthly income of less than US$100. About two-thirds **(74.4%)** of them had income less than US$400 per month. The increase in income in this case is very important: The proportion of individuals in this group with current

[16] In 2005 dollars.

income less than US$300 decreased to **51.4%,** while the remaining **48.6%** reported income between US$300 and US$700 or more per month (see Exhibit 7).

The measure of household income would not be complete if we did not include spouses' income. This component, especially in terms of outside employment, also registered significant changes. Originally **92.8%** of the spouses did not earn more than US$300; 60.7% had monthly income less than $100. Presently, **76.2%** of the interviewed persons reported income of up to US$300, while the remaining **23.8%** reported income between US$300 and US$700 or more.

The income of spouses with their own business did not change significantly. However, as described below, the number of own businesses in the hands of spouses increased significantly, representing an increase in job opportunities.

5.3 Commercial use of housing, self-employment activities, and job duration: heads of household and spouses

Ordinarily, those who live in Solanda work more than 40 hours per week. However, the trend has been downward for heads of household: **85.70%** worked more than 40 hours per week initially, as opposed to **68.6%** at present. However, more women (spouses) work more than 40 hours a week now as opposed to previously: **19** used to work more than 40 hours before, while **27** do so now.

As explained before, the establishment of own businesses demands more spouse time than head of household time. In Solanda, the growth of private businesses is very significant. These grew from **10** cases to **23** for the heads of household and from **6** to **20** for spouses (Exhibit 8).

Exhibit 8. Own businesses for heads of household and spouses

			Head of Household		Member 1	
			No.	%	No.	%
Own Business	**9.1**	**Original**				
		Yes	10	58.80%	6	25.00%
		No	7	41.20%	10	41.70%
	9.2	**Current**				
		Yes	23	100.00%	20	50.00%
		No	0		20	50.00%

Prepared by: Renan Larrea

More and more houses are being used to establish own businesses. The number of businesses in homes grew from 6 original cases to 28 at present (see Exhibit 9).

Proportional to the growth of private economic activity, the location of own businesses in the same neighborhood as the owner's residence also grew (see Annex 7).

Exhibit 9. Growth of own businesses in homes

			Head of Household		Member 1	
			No.	%	No.	%
Location of Own Business	**11.1**	**Original**				
		In Home	4	36.40%	2	33.30%
		In Neighborhood	3	27.20%	2	33.30%
		In the City	4	36.40%	2	33.30%
		Outside of the City				
	11.2	**Current**				
		In Home	11	47.80%	17	85.00%
		In Neighborhood	3	13.00%	1	5.00%
		In the City	8	34.80%	2	10.00%
		Outside of the City	1	4.30%		

Prepared by: Renan Larrea

Originally the houses were used to establish small neighborhood stores (e.g., bakeries and provisions),[17] informal businesses, food, handicrafts, repair shops, and hairdressers (see Exhibit 10). Current data show the trend has not varied much, although the number of cases has increased from 17 originally to **42.**

Exhibit 10. Type of activity from own businesses

			Member 2		Member 3	
			No.	%	No.	%
Activity of Own Business	**10.1**	**Original**				
		Informal Business				
		Store	1	100.00%		
		Food				
		Handicrafts				
		Repairs				
		Transportation				
		Beauty Salon				
	10.2	**Current**				
		Informal Business	1	25.00%	1	100.00%
		Store	2	50.00%		
		Food				
		Handicrafts				
		Repairs				
		Transportation				
		Beauty Salon	1	25.00%		

Prepared by: Renan Larrea

[17] Neighborhood stores are common in Latin America and particularly in cities of Ecuador, where a variety of products are sold: bread and fresh eggs, drinks, candies, personal-use articles, cigarettes, newspapers, and even medicines. This has proven to be an adequate solution for urban consumers.

5.4 Employment of other family members

The other members of the family normally are children and grandchildren. The survey results relate to the other members of the family, apart from the heads of the family, spouses, and children over 14 years.

The increase in the number of employed persons is very significant. In 2005, **71** members of the surveyed homes had work, while in the past only **4** were working. This is basically due to changes in the numbers of persons of working age. However, of the present total of **55.1%,** or **87** persons who did not have a job (see Annex 7).

The most commonly stated reason for not having a job was the lack of education. Originally **138** cases reported this as a fundamental cause for not having had work. Present data continue to show lack of education as the fundamental reason that **71** persons did not have a stable job (see Annex 7).

The original occupation of the family members has little importance for the purpose of this analysis. The majority were not old enough to go out and work at that time. The present occupations of the family members who work have evolved mainly toward university and trade careers, although a large amount of people work as laborers or operators.

Almost no second-generation youths work for governmental agencies; the majority work in the private sector (**58** cases). Contrary to their parents, these employees work mainly outside of the neighborhood, in the city.

5.5 Income of other family members

Both outside employment and self-employment in own businesses by other family members represent a very important contribution to the current economy of the surveyed homes. However, workplaces for this group are concentrated not within Solanda, but outside of it.

Income for this group of workers in 2005 ranged from US$100 to US$300 per month for **57** cases. A minority group of **4** cases interviewed reported receiving income between US$500 and US$700 or more per month. University studies and preparation for university careers bring in more income to this new generation of inhabitants in Solanda.

Likewise, for the persons who owned their businesses in 2005, reported income ranged from US$100 to US$400 (see Exhibit 11).

A brief observation of these data makes it appear that this group has greater income opportunities outside of Solanda. In fact, those who have achieved higher levels of education have been able to access jobs in other areas of the city. We speculate that this group of employees will soon find homes outside of their native Solanda; however, the other group of hardworking freelancers with their own businesses continues to view Solanda as the place to continue their productive activities. For this reason, a process of decline of activities and economic depression in the zone is not yet foreseeable. The existing services and and facilities will maintain Solanda as a focus of attraction and opportunities for many years to come.

Exhibit 11. Income received by other family members

			Member 2		Member 3		Member 4	
			No.	%	No.	%	No.	%
Monthly Outside Income	**6.1**	**Original**						
		Less than US$100	3	100.00%	1	100,00%		
		$100 to 200						
		$200 to 300						
		$300 to 400						
		$400 to 500						
		$500 to 700						
		$700 and greater						
	6.2	**Current**						
		Less than US$100			3	14.00%		
		$100 to 200	17	44.60%	11	49.80%	1	16.70%
		$200 to 300	13	34.20%	6	27.20%	4	66.70%
		$300 to 400	3	7.80%	1	4.50%	1	16.70%
		$400 to 500			1	4.50%		
		$500 to 700	2	5.30%				
		$700 and greater	2	5.30%				
Monthly Income from Own Business	**12.1**	**Original**						
		Less than US$100						
		$100 to 200	1	100.00%				
		$200 to 300						
		$300 to 400						
		$400 to 500						
		$500 to 700						
		$700 and greater						
	12.2	**Current**						
		Less than US$100						
		$100 to 200	3	75.00%				
		$200 to 300	1	25.00%	1	300.00%		
		$300 to 400						
		$400 to 500						
		$500 to 700						
		$700 and greater						

Prepared by: Renan Larrea

6. Family Health

In general, the health of Solanda's inhabitants is good or very good. Sporadic cases have been reported of serious or bad illnesses. Whenever people get sick, they look for medical attention provided by the health centers, clinics, and doctors' offices located in Solanda. Only 36 of the 98 families interviewed said they need more than 30 minutes to get to wherever they will receive medical attention, which means that for these cases the patients look for specialized treatment in other parts of the city.

6.1 Health of the heads of household and spouses

The head of household and family member no. 1 (spouse) were included in the group for the purpose of this analysis because they were assumed to be the older residents of the home. In general terms, the health of the head of household and spouse was considered good (58.2% heads of household and 58.2% of the spouses reported having good health); likewise, 33.7% of the heads of household and 35.7 % of the spouses considered that their health was very good (see Annex 8). On the other hand, 12 cases reported having bad health (8.20% of the heads of household and 4.1% for spouses).

A minority (27.6%) of the heads of household and 36.7% of the spouses said they had ever been ill; by comparison, 72.4% and 61.2% respectively reported *never* being ill.

Illnesses reported were flu and short-duration digestion issues. These illnesses are common both within the rest of the city and throughout the country. A large majority of these people were ill for 5 to 15 days, which is the usual for colds and flu.

One issue that is important to mention is that in Solanda, sick people do look for medical assistance, or go to hospitals or health clinics. This type of social assistance is quite common in Solanda, as is the use of these services by heads of household and spouses. Proof of this is that they state they take between 15 and 30 minutes to access any of the health services nearest to them.

6.2 Health of other members of the family

Since “other members” were mainly children, the health situation of these groups was even better; only four cases of bad health were reported out of all the interviewed persons. Twenty-four individuals were ill with respiratory problems and/or digestive complications.

C. Gender

Gender considerations must be mentioned in a report of this nature. Thus, even when the field researchers were not aware of discrimination per se, issues of equity concerning gender roles were taken into account.

Without a doubt, the men’s roles were and still are very important, as they have been the axis of family economic support throughout the past 20 years.

However, women have played a strong role from the beginning of the Solanda program until the present, particularly whenever the economic activities of the heads of household (mainly men) have started declining; spouses continue increasing theirs and may become the main family providers. During the focus groups we learned that the debts to cover the initial quotas required by BEV were contracted by the spouses.

Women were responsible for all the procedures regarding the adjudication: of the housing units. Their husbands had no time to take care of this issue. Women were the ones who withstood all of the initial discomforts as a result of the lack of services and inadequate

space in their homes. Likewise, they were and continue to be the ones who organize community initiatives in Solanda.

Finally, Solanda is presently chaired by an administration consisting mainly of women; the President, Mrs. Nube Ribera, was elected by popular vote. Among the achievements of this group was the renovation of the electric energy distribution networks and lighting projects in public spaces, which has the approval of the MDMQ. Also, it was responsible for organizing dance, music, and handicraft workshops for middle-aged women.

The dynamism, sacrifice, and enterprising efforts of the women of Solanda need to be acknowledged in this document as a special contribution on their part.

D. Comparison with Other Projects

It is timely to compare Solanda with other sites in the city—such as the "Fight of the Poor" (Lucha de los Pobres) neighborhood, an informal development that began with an invasion of private land belonging to wealthy families by a group with communist tendencies. Fight of the Poor began with a quick occupation and equally fast, precarious construction.

Fight of the Poor is part of a large organization that has continued long after the settlement has been completed. In this sense, it has an advantage over Solanda. It obtained an agreement to pay a fair price for the land, which was done as promised. The organization is very disciplined in complying with agreements. This was done as a means to obtain opening of roads and potable water supply through tankers; this process lasted for a long time, until the mid-1990s when potable water services moved to pipelines. A community center and some schools have been built. The intervention of the Church was very important in these instances (see Photos 53 through 55).

However, after nearly 20 years—the same as for Solanda—Fight of the Poor has not gained nearly the same capacity.

There are other nearby neighborhoods, such as Santa Anita, El Calzado, La Ecuatoriana, Barrio Nuevo, etc. Some have been developed by BEV and other are of the informal type. Not one of the cases is like Solanda. The incentives provided for community organization by Fundación Mariana de Jesús, the public facilities erected, and the implementation of housing solutions with capacity to adjust to the needs of the inhabitants have given Solanda a special quality and a comparative advantage over other planned neighborhoods, and even more so the informal ones.

Photo 52

Photo 53

Photo 54

E. Replicability

The question is obvious, can Solanda be replicated? Nowadays there are better conditions than in the past: Inflation is stable, there is adequate currency to capture savings for housing finance, interest rates have decreased, there is greater range allowed for housing standards, there continues to be some demand, there is the experience that has been gained, and so forth.

However, presently there is no appropriate leadership. The government agencies have been incapable of leading private projects of the size of Solanda.

Housing solutions are sustained only by the limited efforts of private promoters. There is no articulated champion that promotes credits and facilitates the construction of private housing.

F. Lessons Learned

From Solanda's experience, there is much to document and continue learning. One of the most relevant aspects is that it is possible to carry out integrated urban and housing development projects.

In Ecuador, state agencies have stopped building houses; this is fine, because the resources available for this purpose have ended because of subsidies and lack of cost recovery. However, the organizations responsible for generating housing policies have not been able to lead the processes to allow the channeling of resources for financing housing or for the execution of programs of the size of Solanda. There are no appropriate incentives for the execution of integrated urban development projects on the part of the private sector.

At one point, RUDO/USAID led the largest and best urban development processes in Ecuador. After Solanda, other similar and large HG programs were executed. With each program, new strategic objectives were implemented, mainly focused on motivating private participation in the development of accessible housing projects for low-income families, as well as discouraging state interference in the housing construction processes, as the government was considered to be a poor administrator. On the other hand, the waste of available state resources through irretrievable subsidies had to be eliminated.

The policy measures that were introduced by the HG programs gave good results, each one in its own time. However, in each case something was missing.

After Solanda, for example, no further projects of the nature of Solanda were ever carried out, to face similar challenges. All of the ingredients were present, but it never happened.

After the guaranteed programs, HG-006 and HG-007, there were also important achievements, such as the introduction of mechanisms and institutionalization processes to ensure financial liquidity for the banks and builders. Many reforms were carried out and introduced with the support of USAID's credit programs:

- Respond to the needs of lower-income families.
- Incorporate appropriate regulations and standards on the design of solutions and urban development.
- Reduce the cost of solutions.
- Recover costs.
- Introduce appropriate credit mechanisms to facilitate accessibility of low-income families to appropriate solutions.

- Reduce inflationary effects on private lenders to ensure their participation in private housing financing.
- Ensure that those in the lower-income strata could find appropriate solutions through the introduction of transparent state subsidies.
- Motivate private participation in funding and housing construction as a key element for development of local economies.
- Ensure the flow of capital for the private sector.
- Eliminate government agencies' roles as builders and financial intermediaries.
- Promote and strengthen government competency with regard to appropriate policy design for the housing sector.

Unfortunately, one way or another, the processes were not strengthened as needed. The changes and reforms that were introduced always had unexpected enemies; these were changes in administration at the central government and sectional levels. The introduction of reforms and policy changes requires a more sustained support, regardless of how good they are, so they can turn into sustained processes in the future.

The missing piece is that the Solanda concept was only carried out once. It became one of many one-time-only ideas.

G. Recommendations

Solanda's experience is very important and enriching. People do not need donations; they need opportunities, credit, and trust. With the loan from USAID to build Solanda, and with the local contributions, the people have been able to grow economically wise, in their subsistence capacity, in their organization, and in significantly improving their standards of life and health. The results of this evaluation confirm this statement. Besides the original 20,000 inhabitants of Solanda, others have been added, up to 80,000. This means that the results of this loan extend out to many other families and descendants of the original inhabitants. The returns have been immense.

For this reason, the recommendation focuses on funding and promoting these types of programs in the future.

Annexes

Annex 1

Focus Group Participants

Name	Telephone
Original residents	
Claudia Benavides	273-0414
Oscar Reyes Aguirre	268-2497
Bestalia Chillán Mejía	269-1001
Carmen Razo	273-3167
Olivia Núñez	273-0391
Rosa Galeas	273-0423
Maruja Chicaiza	268-1433
Teresa Castro	268-3443
Isabel Velásquez Andino	268-3658
Polidoro Andrade	273-0421
New residents	
Nube Rivera	098-926-724
René Pacheco	273-1007
Paola Vázquez Pisco Omar	
Reverendo Enrique Rodríguez	268-0756

Annex 2

Unit Types and Number of Solutions, Construction Area, and Construction Sale Prices, 1987

Solution	Solution Type	Area (m^2)	Solution Number	%	Construction Area	Construction Sale Price (Sucres 1987)	Construction Sale Price (US Dollars 1987)	Sale Price per m^2 of Construction	Total Construction Sale Price	Average m^2 Construction Sale Price
A1PT	Floor & Roof	24.11	1012	16.29	24,399.32	S/. 261,003.00	$1,526.60	$63.32	$1,544,920.37	
B1PT	Floor & Roof	24.12	97	1.56	2,339.64	S/. 283,590.00	$1,658.71	$68.77	$160,895.07	
C1PT	Floor & Roof	24.12	893	14.38	21,539.16	S/. 261,003.00	$1,526.60	$63.29	$1,363,254.83	
LUS	Lot & Sanitary unit	11.88	622	10.01	7,389.36	S/. 162,231.00	$948.89	$79.87	$590,206.95	
BRIDGE	Bridge Unit	24.12	703	11.32	16,956.36	S/. 347,972.00	$2,035.28	$84.38	$1,430,802.57	
LUV-2B	Two story	72.00	113	1.82	8,136.00	S/. 759,503.56	$4,442.32	$61.70	$501,982.23	
A1	Two-Family	66.85	646	10.40	43,185.10	S/. 378,937.00	$2,216.39	$33.15	$1,431,790.97	
A2	Two-Family	66.85	2	0.03	133.70	S/. 378,937.00	$2,216.39	$33.15	$4,432.79	
A3	Two-Family	66.85	69	1.11	4,612.65	S/. 378,937.00	$2,216.39	$33.15	$152,931.23	
B1	Two-Family	54.80	175	2.82	9,590.00	S/. 604,646.00	$3,536.56	$64.54	$618,898.34	
B2	Two-Family	54.80	178	2.87	9,754.40	S/. 450,518.00	$2,635.07	$48.09	$469,042.55	
B3	Two-Family	53.10	174	2.80	9,239.40	S/. 602,470.00	$3,523.83	$66.36	$613,147.22	
B'1	Two-Family	54.80	136	2.19	7,452.80	S/. 628,759.00	$3,677.60	$67.11	$500,153.38	
B'2	Two-Family	41.22	130	2.09	5,358.60	S/. 455,018.00	$2,661.39	$64.57	$345,980.82	
B'3	Two-Family	53.10	134	2.16	7,115.40	S/. 602,470.00	$3,523.83	$66.36	$472,193.84	
C1	Basic Unit	24.11	427	6.87	10,294.97	S/. 373,937.00	$2,187.15	$90.72	$933,912.96	
C2	Basic Unit	24.11	3	0.05	72.33	S/. 373,937.00	$2,187.15	$90.72	$6,561.45	
C3	Basic Unit	70.55	42	0.68	2,963.10	S/. 744,208.00	$4,352.86	$61.70	$182,820.00	
D1	Basic Unit	54.80	212	3.41	11,617.60	S/. 640,167.00	$3,744.32	$68.33	$793,796.60	
D2	Basic Unit	41.22	222	3.57	9,150.84	S/. 455,018.00	$2,661.39	$64.57	$590,828.78	
D3	Basic Unit	53.10	221	3.56	11,735.10	S/. 602,470.00	$3,523.83	$66.36	$778,767.44	
			6211	**100.00**	**223,035.83**				**$13,487,320.40**	**$60.47**
Exchange Rate 1987 (sale)		**170.97** Sucres per dollar								
	UNITS TYPES									
	Floor & Roof and Urbanized Lot		2624	42.25						
	Less than 40 m^2		1527	24.59						
	More than 40 m^2		2060	33.17						
			6211	**100.00**						

Source: General list of BEV Solanada recipients and cost liquidation and BEV sale prices.

Annex 3

General Data of the Program

Land Use Data	Area (m2)	% Over Urbanization Area	% Over Land Area
Total Land Area	**1,581,333.53**		**100.00%**
Ravine and slope area	170,175.60		10.76%
Wholesale market area	220,000.00		13.91%
Instituto Superior Area	100,000.00		6.32%
FMJ reserve area	86,091.62		5.44%
Perimeter road area	86,378.65		5.46%
Perimeter housing area	53,905.00		3.41%
Urbanization Area	**864,782.66**	**100.00%**	**54.69%**
Total single-family housing area	389,473.59	45.04%	24.63%
Public facility area	103,674.28	11.99%	6.56%
Green and sports areas	139,192.90	16.10%	8.80%
Motor vehicle road area	136,833.74	15.82%	8.65%
Parking space area	20,975.10	2.43%	1.33%
Pedestrian ways and sidewalks	74,633.05	8.63%	4.72%
Number of houses	6,211.00		**US dollars**
Number of houses with USAID	5,746.00		
Total useable selling area	389,473.59		
Value per sale m^2 (*)	S/. 4,583.26 (1987 Sucres)		**$26.81**
Total urbanization and land price	S/. 1,785,060,232.05 (1987 Sucres)		**$10,440,780.44**
Exchange rate in 1987: 170.97 Sucres per dollar			

Source: General Plan of Solanda; MIDUVI
(*) Cost Liquidation and BEV Sale Pricing

Annex 4

Sales Price Update

Year	US Dollar Inflation Rate	Solanda Total Sales Price	Urbanization Total Sales Price	Construction Total Sales Price	Urbanization Price Per m^2	Construction Sales Price Per m^2
1987		$23,928,100.84	$10,440,780.44	$13,487,320.40	$26.81	**$60.47**
1988	2.39%	$24,500,199.98	$10,690,410.01	$13,809,789.97	$27.45	$61.92
1989	2.39%	$25,085,977.49	$10,946,007.99	$14,139,969.49	$28.11	$63.40
1990	2.39%	$25,685,760.40	$11,207,717.09	$14,478,043.31	$28.78	$64.91
1991	2.39%	$26,299,883.58	$11,475,683.42	$14,824,200.16	$29.47	$66.46
1992	2.39%	$26,928,689.89	$11,750,056.58	$15,178,633.31	$30.17	$68.05
1993	2.39%	$27,572,530.39	$12,030,989.75	$15,541,540.64	$30.89	$69.68
1994	2.70%	$28,316,988.71	$12,355,826.47	$15,961,162.23	$31.73	$71.56
1995	2.50%	$29,024,913.42	$12,664,722.13	$16,360,191.29	$32.52	$73.35
1996	3.30%	$29,982,735.57	$13,082,657.97	$16,900,077.60	$33.59	$75.77
1997	1.70%	$30,492,442.07	$13,305,063.15	$17,187,378.92	$34.16	$77.06
1998	1.60%	$30,980,321.14	$13,517,944.16	$17,462,376.98	$34.71	$78.29
1999	2.70%	$31,816,789.82	$13,882,928.65	$17,933,861.16	$35.65	$80.41
2000	3.40%	$32,898,560.67	$14,354,948.23	$18,543,612.44	$36.86	$83.14
2001	2.80%	$33,819,720.37	$14,756,886.78	$19,062,833.59	$37.89	$85.47
2002	1.40%	$34,293,196.45	$14,963,483.19	$19,329,713.26	$38.42	$86.66
2003	2.30%	$35,081,939.97	$15,307,643.31	$19,774,296.67	$39.31	$88.66
2004	1.90%	$35,748,496.83	$15,598,488.53	$20,150,008.30	$40.05	$90.34
2005		**$35,748,496.83**	**$15,598,488.53**	**$20,150,008.30**	**$40.05**	**$90.34**

Annex 5

Analysis of the Real Increase in Total Property

Number of Current Floors	%	Estimated Growth Times		Total Original Built Area (m^2) 223,035.83	Total Estimated Built Area (m^2)	Increase (m^2)	Increase (US$)	%
1	13.30%	0.5		29,663.77	44,495.65	14,831.88		
2	58.20%	1.5		129,806.85	324,517.13	194,710.28		
3	24.50%	2.5		54,643.78	191,253.22	136,609.45		
4	4.10%	3.5		9,144.47	41,150.11	32,005.64		
Totals	**100.10%**			**223,258.87**	**601,416.12**	**378,157.25**		
Percentages				100.00%	269.38%	169.38%		
A. Updated 2005 Total Construction Price				**$20,150,008.30**	**$54,280,217.16**	**$34,130,208.86**	**$54,280,217.16**	**151.84%**
B. Updated 2005 Unit Price 2005 (A / Total Area)			$90.25					
C. Real Construction Unit Market Value			**$180.00**					
D. Total Real Market Value (C X Total Area)				$40,186,595.85	$108,254,900.81	$68,068,304.96		
E. Real Increase In Building Estate (D - A)				**$20,036,587.55**		**$68,068,304.96**	**$88,104,892.51**	**246.46%**
F. Updated Urbanization Value (Useful Area)				$15,598,488.53				
G. Updated Vale Per m^2 Useful Area			**$40.05**					
H. Current Price m^2 of Urbanized Land			**$70.00**					
I. Total Useful Urbanized Area				**389,473.53**				
J. Total Current Market Value of Urbanized Area (H X I)				$27,263,147.10				
K. Real Increase In Urbanization Property (J - F)				$11,664,658.57			**$11,664,658.57**	**32.63%**
L. Original Updated Property (A + F)				**$35,748,496.83**				
				100.00%			**279.09%**	
M. Total Increase In Property							**$99,769,551.08**	
Summary								
Current Value of the Property Originally Acquired				**$35,748,496.83**	**100.00%**			
Current Value of the Current Property				**$135,518,047.91**	**379.09%**			
Increase in Property at Current Prices				**$99,769,551.08**	**279.09%**			

Annex 6

Family Members' Age, Sex, Relationship, and Education

	Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Age																		
0 to 15			2	2.00%	7	7.00%	18	18.30%	14	14.20%	9	9.10%	5	5.50%	1	1.00%	1	1.00%
16 to 30			5	5.10%	61	62.20%	37	37.70%	14	14.20%	9	9.00%	1	1.00%	1	1.00%		
31 to 45	8	8.10%	20	20.20%	11	11.10%	6	6.00%	5	5.00%								
46 to 60	69	70.30%	58	59.20%														
61 and over	21	21.20%	11	11.00%	2	2.00%												
Sex																		
Male	90	91.80%	4	4.10%	48	49.00%	36	36.70%	14	14.30%	7	7.10%	4	4.10%	1	1.00%	1	1.00%
Female	8	8.20%	92	93.90%	33	33.70%	25	25.50%	19	19.40%	11	11.20%	2	2.00%	1	1.00%	1	1.00%
Relation																		
Head of household	90	91.80%																
Spouse/life companion			80	81.60%														
Son/daughter			9	9.20%	75	76.50%	54	55.10%	26	26.50%	9	9.20%	3	3.10%				
Grandson/granddaughter			1	1.00%	3	3.10%	2	2.00%	4	4.10%	6	6.10%	3	3.10%	2	2.00%	2	1.00%
Other					3	3.00%	5	5.10%	3	3.00%	3	3.00%						
Education																		
Elementary	33	33.70%	28	28.60%	1	1.00%			2	2.00%	1	1.00%						
High school	37	37.80%	41	41.80%	24	24.50%	14	14.30%	7	5.10%	3	3.10%	1	1.00%			1	1.00%
Technical	1	1.00%			19	19.40%	18	18.40%	8	8.20%	6	6.10%	1	1.00%				
Superior	16	16.30%	14	14.30%	22	22.40%	14	14.30%	12	12.20%	6	6.10%	3	3.10%	1	1.00%		
Postgraduate			1	1.00%	16	16.30%	13	13.30%	6	6.10%	3	3.10%			1	1.00%		
Attending school																		
Nursery school							2	2.00%	1	1.00%	1	1.00%	1	1.00%				
Elementary					4	4.10%	7	7.10%	8	8.20%	4	4.10%	2	2.00%				
High school			2	2.00%	16	16.30%	19	19.40%	9	9.20%	3	3.10%					1	1.00%
Superior			3	3.10%	19	19.40%	14	14.30%	6	6.10%	3	3.10%			1	1.00%		
Postgraduate															1	1.00%		
None			91	92.90%	41	41.80%	19	19.40%	9	9.20%	6	6.10%	3	3.10%				
Number of Cases	**98**		**96**		**81**		**61**		**33**		**18**		**6**		**2**		**2**	

No. of persons	**397**	
Size of household	**4.05**	
Heads of household	**98**	
Spouses	**96**	
Sons	**109**	**54.77%**
Daughters	**90**	**45.23%**
	199	**100.00%**
Total family members	**393**	
Average family size	**4.01**	

Child Education	**No.**	**%**
Elementary	4	2.00%
High school	49	24.50%
Technical career/intermediate	52	26.00%
Superior	57	28.50%
Postgraduate	38	19.00%
	200	**100.00%**

Annex 7

Family Economic Activity

				Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
				#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	Has a job	1.1	**Original**																		
			Yes	94	95.90	30	30.60	3	3.10	1	1.00										
			No	4	4.10	66	67.30	75	76.50	48	49.00	18	18.40	10	10.20	2	2.00				
		1.2	**Current**																		
			Yes	70	71.40	41	41.80	38	38.80	22	22.40	6	6.10	4	4.10	1	1.00				
			No	28	28.60	55	56.10	40	40.80	27	27.60	12	12.20	6	6.10	1	1.00	1	100.00		
2	Reason for not working	2.1	**Original**																		
			Illness					1	1.00			1	1.00								
			Company was closed																		
			Does not need to work					1	1.00												
			There are no jobs			1	1.00					1	1.00								
			Study			1	1.00	65	66.30	46	46.90	15	15.30	10	10.20	2	2.00				
			Retired	1	1.00							1	1.00								
			Housekpng			64	65.30	4	4.10	2	2.00										
			Other	3	3.10			7	7.10	1	1.00										
		2.2	**Current**																		
			Illness	1	1.00			1	1.00			1	1.00								
			Company was closed	2	2.00			1	1.00			1	1.00								
			Does not need to work	1	1.00																
			There are no jobs			2	2.00	1	1.00												
			Study					28	28.60	26	26.50	10	10.30	6	6.10	1	100.00				
			Retired	19	19.40	1	1.00														
			Housekpng	1	1.00	51	52.00	2	2.00	1	1.00										
			Other	4	4.10			5	5.10												

				Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
				#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
3	Main occupation	3.1	**Original**																		
			Worker	28	40.00	11	36.70	1	33.30	1	100.00										
			Craftsman	9	12.90	5	16.70														
			Driver	8	11.40	6	20.00														
			Merchant	10	14.00	1	3.30	1	33.30												
			Teacher																		
			University prof.	6	8.60	3	10.00														
			Housekpng employee			2	6.70														
			Secretary			1	3.30														
			Technician			1	3.30														
			Policeman	6	8.60																
			Fireman	1	1.40			1	33.30												
			Cook	1	1.40																
		3.2	**Current**																		
			Worker	17	24.30	10	23.80	13	34.20	8	36.40	4	66.70	3	75.00						
			Craftsman	9	12.90	4	9.50	2	5.30	2	9.10										
			Driver	15	21.40																
			Merchant	10	14.30	19	45.20	2	5.30	3	13.60	1	16.70								
			Teacher			1	2.40	1	2.60												
			University prof.	5	7.10	4	9.50	12	31.50	4	18.20	1	16.70	1	25.00						
			Housekpng employee			4	9.50	1	2.60	1	4.50										
			Secretary					1	2.60	1	4.50										
			Technician	5	7.10			2	5.30	2	9.10										
			Policeman	2	2.90																
			Fireman	1	1.40																
			Sales	5	7.10																
			Cook	1	1.40																

				Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
				#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
4	Source for whoever depends on a job	4.1	**Original**																		
			Government	22	31.40	7	23.30														
			Private	34	48.60	15	50.00	1	33.30	1	100.00										
			Independent	14	20.00	8	26.70	1	33.30												
		4.2	**Current**																		
			Government	15	21.40	5	11.90	3	7.90			1	16.70	1	25.00						
			Private	25	35.70	13	33.30	31	81.60	20	20.40	5	83.30	3	75.00						
			Independent	30	42.90	23	54.80	4	10.50	1	100.00										
5	Location of workplace for whoever depends on a job	5.1	**Original**																		
			At home	5	7.10	4	13.30														
			In the neighbor-hood			2	6.70	2	66.70												
			In the city	60	85.70	22	76.70			1	100.00										
			Outside the city	5	7.10	1	3.30	1	33.30												
		5.2	**Current**																		
			At home	12	17.10	14	33.30			3	13.60										
			In the neigh-borhood	1	1.40	4	9.50	1	25.00												
			In the city	56	80.00	23	54.80	3	75.00	16	81.90	5	83.30								
			Outside the city	1	1.40	1	2.40			1	450.00	1	16.70								

			Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
6	Monthly income	**6.1 Original**																		
		Less than US 100	2	18.20	17	60.70	3	100.00	1	100.00										
		100 to 200	4	36.40	5	17.80														
		200 to 300	2	18.20	4	14.30														
		300 to 400	3	27.20	1	3.60														
		400 to 500			1	3.60														
		500 to 700																		
		700 or more																		
		6.2 Current																		
		Less than US 100	3	4.30	7	16.70			3	14.00										
		100 to 200	12	17.10	18	42.90	17	44.60	11	49.80	1	16.70								
		200 to 300	21	30.00	7	16.60	13	34.20	6	27.20	4	66.70								
		300 to 400	13	18.60	5	11.90	3	7.80	1	4.50	1	16.70								
		400 to 500	8	11.40					1	4.50										
		500 to 700	11	15.60	4	9.50	2	5.30												
		700 to more	2	2.90	1	2.40	2	5.30												
7	Weekly duration of the job	**7.1 Original**																		
		Less than 40 hours	10	14.30	11	36.70	2	66.70	1	100.00										
		40 hours or more	60	85.70	19	63.30	1	33.30												
		7.2 Current																		
		Less than 40 hours	22	31.40	15	35.70	14	36.80	10	45.50	6	100.00								
		40 hours or more	48	68.60	27	64.30	24	63.20	12	54.50										
8	Willing to work more hours	Yes	18	25.70	13	31.00	17	44.70	10	45.50	2	33.30								
		No	52	74.30	29	69.00	21	55.30	12	54.50	4	66.70								

				Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
				#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
9	Has own business	9.1	**Original**																		
			Yes	10	58.80	6	25.00	1	100.00												
			No	7	41.20	10	41.70														
		9.2	**Current**																		
			Yes	23	100.00	20	50.00	4	100.00	1	100.00										
			No	0		20	50.00														
10	Line of business owned	10.1	**Original**																		
			Informal commerce	2	18.20																
			Small shop			3	50.00	1	100.00												
			Food			1	16.70														
			Handicrafts	3	27.30	2	33.30														
			Repair shop	3	27.30																
			Transporta-tion	1	9.10																
			Beauty shop	2	18.20																
		10.2	**Current**																		
			Informal commerce	4	17.40	2	10.00	1	25.00	1	100.00										
			Small shop	7	30.60	11	55.00	2	50.00												
			Food			1	5.00														
			Handicrafts	3	13.00	4	20.00														
			Repair shop	5	21.70																
			Transporta-tion	3	13.00																
			Beauty shop	1	4.30	1	5.00	1	25.00												

			Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
11	Location of business owned	**11.1 Original**																		
		At home	4	36.40	2	33.30														
		In the neigh-borhood	3	27.20	2	33.30	1	100.00												
		In the city	4	36.40	2	33.30														
		Outside the city																		
		11.2 Current																		
		At home	11	47.80	17	85.00			1	100.00										
		In the neigh-borhood	3	13.00	1	5.00	1	25.00												
		In the city	8	34.80	2	10.00	3	75.00												
		Outside the city	1	4.30																
12	Income from business owned	**12.1 Original**																		
		Less than US 100	6	26.60	2	40.00														
		100 to 200	4	17.40	2	40.00	1	100.00												
		200 to 300	4	17.40	1	20.00														
		300 to 400	3	13.00																
		400 to 500																		
		500 to 700	3	13.00																
		700 and more	3	13.00																
		12.2 Current																		
		Less than US 100	3	4.30	6	30.00														
		100 to 200	12	17.10	7	40.00	3	75.00												
		200 to 300	21	30.00	4	20.00	1	25.00	1	300.00										
		300 to 400	13	18.60	2	10.00														
		400 to 500	8	11.40																
		500 to 700	11	15.60																
		700 and more	2	2.90																

Not working: students or minors.

			Head of Household		Member 1		Member 2		Member 3		Member 4	
			#	%	#	%	#	%	#	%	#	%
Monthly income from the source	6.1	**Original**										
		Less than US 100	2	18.20	17	60.70	3	100.00	1	100.00		
		100 to 200	4	36.40	5	17.80						
		200 to 300	2	18.20	4	14.30						
		300 to 400	3	27.20	1	3.60						
		400 to 500			1	3.60						
		500 to 700										
		700 and more										
	6.2	**Current**										
		Less than US 100	3	4.30	7	16.70			3	14.00		
		100 to 200	12	17.10	18	42.90	17	44.60	11	49.80	1	16.70
		200 to 300	21	30.00	7	16.60	13	34.20	6	27.20	4	66.70
		300 to 400	13	18.60	5	11.90	3	7.80	1	4.50	1	16.70
		400 to 500	8	11.40					1	4.50		
		500 to 700	11	15.60	4	9.50	2	5.30				
		700 and more	2	2.90	1	2.40	2	5.30				
Income from business owned	12.1	**Original**										
		Less than US 100	6	26.60	2	40.00						
		100 to 200	4	17.40	2	40.00	1	100.00				
		200 to 300	4	17.40	1	20.00						
		300 to 400	3	13.00								
		400 to 500										
		500 to 700	3	13.00								
		700 and more	3	13.00								
	12.2	**Current**										
		Less than US 100	3	4.30	6	30.00						
		100 to 200	12	17.10	7	40.00	3	75.00				
		200 to 300	21	30.00	4	20.00	1	25.00	1	300.00		
		300 to 400	13	18.60	2	10.00						
		400 to 500	8	11.40								
		500 to 700	11	15.60								
		700 and more	2	2.90								

			Head of Household		Member 1		Member 2		Member 3	
			#	%	#	%	#	%	#	%
Line of the business owned	**10.1**	**Original**								
		Informal commerce	2	18.20						
		Small shop			3	50.00	1	100.00		
		Food			1	16.70				
		Handicrafts	3	27.30	2	33.30				
		Repair shop	3	27.30						
		Transportation	1	9.10						
		Beauty shop	2	18.20						
	10.2	**Current**								
		Informal commerce	4	17.40	2	10.00	1	25.00	1	100.00
		Small shop	7	30.60	11	55.00	2	50.00		
		Food			1	5.00				
		Handicrafts	3	13.00	4	20.00				
		Repair shop	5	21.70						
		Transportation	3	13.00						
		Beauty shop	1	4.30	1	5.00	1	25.00		

			Head of Household		Member 1	
			#	%	#	%
Location of business owned	**11.1**	**Original**				
		At home	4	36.40	2	33.30
		In the neighborhood	3	27.20	2	33.30
		In the city	4	36.40	2	33.30
		Outside the city				
	11.2	**Current**				
		At home	11	47.80	17	85.00
		In the neighborhood	3	13.00	1	5.00
		In the city	8	34.80	2	10.00
		Outside the city	1	4.30		

			Head of Household		Member 1	
			#	%	#	%
Own business	**9.1**	**Original**				
		Yes	10	58.80	6	25.00
		No	7	41.20	10	41.70
	9.2	**Current**				
		Yes	23	100.00	20	50.00
		No	0		20	50.00

			Head of Household		Member 1	
			No.	%	No.	%
Monthly income from the source	6.1	**Original**				
		Less than US 100	2	18.20	17	60.70
		100 to 200	4	36.40	5	17.80
		200 to 300	2	18.20	4	14.30
		300 to 400	3	27.20	1	3.60
		400 to 500			1	3.60
		500 to 700				
		700 and more				
	6.2	**Current**				
		Less than US 100	3	4.30	7	16.70
		100 to 200	12	17.10	18	42.90
		200 to 300	21	30.00	7	16.60
		300 to 400	13	18.60	5	11.90
		400 to 500	8	11.40		
		500 to 700	11	15.60	4	9.50
		700 and more	2	2.90	1	2.40

			Head of Household		Member 1	
			#	%	#	%
Source for whoever depends on a job	4.1	**Original**				
		Government	22	31.40	7	23.30
		Private	34	48.60	15	50.00
		Independent	14	20.00	8	26.70
	4.2	**Current**				
		Government	15	21.40	5	11.90
		Private	25	35.70	13	33.30
		Independent	30	42.90	23	54.80
Location of the workplace for whoever depends on a job	5.1	**Original**				
		At home	5	7.10	4	13.30
		In the neighborhood			2	6.70
		In the city	60	85.70	22	76.70
		Outside the city	5	7.10	1	3.30

			Head of Household		Member 1	
			#	%	#	%
Source for whoever depends on a job	**4.1**	**Original**				
		Government	22	31.40	7	23.30
		Private	34	48.60	15	50.00
		Independent	14	20.00	8	26.70
	4.2	**Current**				
		Government	15	21.40	5	11.90
		Private	25	35.70	13	33.30
		Independent	30	42.90	23	54.80
Location of business owned	**5.2**	**Current**				
		At home	12	17.10	14	33.30
		In the neighborhood	1	1.40	4	9.50
		In the city	56	80.00	23	54.80
		Outside the city	1	1.40	1	2.40
	11.1	**Original**				
		At home	4	36.40	2	33.30
		In the neighborhood	3	27.20	2	33.30
		In the city	4	36.40	2	33.30
		Outside the city				
	11.2	**Current**				
		At home	11	47.80	17	85.00
		In the neighborhood	3	13.00	1	5.00
		In the city	8	34.80	2	10.00
		Outside the city	1	4.30		

Annex 8

Health

		Head of Household		Member 1		Member 2		Member 3		Member 4		Member 5		Member 6		Member 7		Member 8	
		#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	**Health**																		
	Very good	33	33.70	35	35.70	44	44.90	30	30.60	1	100.00			4	4.10	1	1.00	1	1.00
	Good	57	58.20	57	58.20	34	34.70	30	30.60					2	2.00	1	1.00		
	Bad	8	8.20	4	4.10	3	3.10	1	1.00										
2	**Was sick**																		
	Yes	27	27.60	36	36.70	1	17.30	11	11.20					1	1.00	1	1.00		
	No	71	72.40	60	61.20	64	65.30	50	51.00	1	100.00			5	5.10	1	1.00	1	1.00
3	**Last illness**																		
	Respiratory	17	63.00	20	55.60	13	76.50	8	72.70					1	100.00	1	100.00		
	Digestive	7	25.90	6	16.70	2	11.80	1	9.10										
	Chronic	1	3.70	5	13.90	1	5.90	1	9.10										
	Cerebral/vascular	2	7.40	4	11.10	1	5.90	1	9.10										
	Muscular																		
	Other			1	2.80														
4	**Duration of the illness**																		
	Up to 2 days	2	7.40	2	22.00	3	11.80	1	9.10										
	5 days	12	44.40	15	44.40	8	47.10	7	63.60			2	66.60	1	100.00	1	100.00		
	15 days	7	25.50	6	16.80	6	35.40	1	9.10			1	33.30						
	30 days	5	18.50	5	13.90	1	5.90	2	18.20										
	More than 30 days	1	3.70	1	2.80														
5	**Where did you receive care?**																		
	Hospital	15	55.60	8	22.20	2	11.80	1	9.10										
	Health center	7	25.90	16	44.40	10	58.80	7	63.60			3	100.00	1	100.00	1	100.00		
	Private clinic	2	7.40	5	13.90			1	9.10										
	Doctor's office	2	7.40	2	8.30	4	23.50	1	9.10										
	At home	1	3.70	1	2.80	1	5.90												
	Other			3	8.40			1	9.10										
6	**When you were sick you went to a:**																		
	Pharmacy	1	3.70	1	8.30	1	5.90	2	18.20										
	Doctor	26	96.30	32	88.90	16	94.10	9	81.80			3	100.00	1	100.00	1	100.00		
	Self-medication	1		1	2.80														
7	**Time that it took you to get there**																		
	More than 30 minutes	3	11.10	4	11.10	1	5.90					1	33.30						
	15 minutes	9	33.30	3	8.30	2	11.80	1	9.10										
	Less than 30 minutes	15	55.60	29	80.60	14	82.40	10	90.90			2	66.70	1	100.00	1	100.00		

Annex 9

Methodology Applied in the Field Investigation

The field investigation followed the agreed-upon procedures to interview 50 to 100 families that had been living in Solanda between 15 and 20 years. The questionnaire designed by RTI was administered in 105 cases, of which 98 are considered valid and reflect the data included in the present report.

Contrary to what was originally thought possible, 100% of the questionnaires were administered to families who had bought the original solutions selected.

A group of 250 residents originally was identified by the Diocese of Solanda. Unfortunately, this list contained names of families mostly living outside Solanda.

We turned to the BEV[18] where we were able to identify the names of the original recipients.

Field Investigation Methodology

- **Plan update.** The plans of the Metropolitan District of Quito as well as the original plans provided by BEV were obtained. The most suitable plans to select the original[19] addresses were selected.
- **Collection of basic information.** Based on the lists provided by the Diocese, telephone contacts were made from the office to verify the data with the heads of household. These lists reported an error rate of more than 45%, and consequently, the list provided by the Diocese was eliminated.

  A survey was conducted with the secondary information obtained from the BEV. This verification was made through two focus groups of 15 people each. It was confirmed that the information was correct and that a high percentage of the current owners were the original owners.

- **Testing of the model survey and adjustments.** The pilot plan for the application of the survey to eight households was carried out, two in each sector—these households did not participate in the final selection of houses—in order to determine its effectiveness and application conditions. This approach helped solve problems that were present during the pilot test, through a meeting attended by the project coordinator, statistical analyst, survey specialists, and field supervisor, by analyzing the survey questions and answers, one by one. The result was the generation of a survey more adjusted to the reality of the country.

[18] Gladis Orozco facilitated the general lists of the original recipients of Solanda.

[19] The current addresses of the residents responds to a very recent nomenclature adopted by the MDMQ and are entirely different from the original addresses.

- **Zoning and selection of houses.** It was decided to maintain the same original zoning and nomenclature adopted by the BEV, dividing Solanda in four sectors, "supermanzanas," and "manzanas," alphabetically classified from A to Y.
- **Administration of the survey.** 25 sites were randomly selected in each sector, and in turn, 6 were selected in each of the 4 "supermanzanas"; additionally, the final survey was selected in the place where there was a higher number of housing units. The "manzanas" were selected randomly, simply by drawing lots. The survey administration was supervised in two ways: (a) working with the surveyor to collect the data for the survey at least three times per sector; and (b) reviewing 100% of the survey results, identifying specific problems in the collection of the information by each surveyor, and making the necessary corrections. Among the corrections made, new visits were made to confirm or correct the information previously gathered.
- **Structure of the database and survey data recording.** The technician in charge devised a mechanism to record the data with the options identified in the survey. This structure was made in SPSS. Jointly the statistical analyst, the supervisor, and the coordinator recoded the existing open questions.

  Tests and adjustments were made to the data collection list for the data recording process.

- **Elimination of data inconsistencies.** Once the surveys had been tabulated, a process to eliminate errors was carried out, taking into account the minimum and maximum values per question, consistency of variable crossing, field verification if it applied, or corrections in the data tabulation process.

General Observations

As general field observations, we can mention:

- Most existing houses have been modified.
- All the current owners are the original owners.
- It was possible to observe that in some cases, more than one house was awarded to a single owner.
- Owners of three-family houses have not been able to make any type of expansion.
- The use of the original space is evident with solutions of up to more than 6 floors.
- There is a significant number of abandoned or leased houses as a result of high migration levels.

Annex II – Honduras 522-HG-005 and 006 Report

1. Introduction

The Program of Housing and Urban Upgrading, executed with funds from USAID/Honduras, started at the end of the 1970s, with the purpose of working with the government's intention to reduce the high housing deficit existing at that time. In addition to the housing deficit, the existing houses were affected by structural defects and by deficiencies in basic services. At least 60% of the urban houses were overcrowded and had structural defects. More than 25% of the units lacked water and sanitation services, and more than 42% of the units were one- or two-room structures only. All these deficiencies were identified in a preliminary study carried out by PADCO, Inc., to function as a basis for the preparation of the National Housing Plan for Honduras.[1]

USAID's Program of Housing and Urban Upgrading focused on the solution to the housing shortage problem in the country to assist lower-income families. The general objective was to offer a minimum housing solution so that the family could afford the payments and so that, with the improvement of their income, a progressive development could be initiated according to the family's needs and capacities.

Within the USAID program, a series of projects was developed to construct houses for low-income families and to improve marginal communities by providing or improving the basic sanitary services and infrastructure to upgrade the living conditions of the residents of these communities. Through these programs, low-income families identified their priority needs and looked for solutions with public and private institutions that would offer them an answer to their needs. Some needed a house for their families, while others needed to supply their dwelling units and communities with drinking water services, sewage disposal, street paving, retaining walls, bridges, and street lighting, among others.

It was expected that an improved environment and more stable living conditions for low-income families would result in improved housing conditions for these families, in communities with more stability and security, and if these pilot programs were successful, that the National Housing Policy or the local governments would continue with some similar programs, with investor groups participating from the public and private sector.

It was not possible to measure the success of these programs simply at the close of the pilot projects, because the results from improvement in housing conditions included long-term effects. Now, more than 20 years after the investments were initially made, it is time to look in retrospect at the communities that benefited from these pilot projects, in order to evaluate whether the expected results were accomplished from the point of view of (1) the physical development of the units, (2) the economic development of the community,

[1] PADCO, *Specific Actions Related to the Preparation of the National Housing Plan for Honduras,* Final Report, January 1978.

and (3) the proportion of the development within the national system for the financing of housing and urban development.

2. Elements of the Impact Evaluation

To evaluate the impact of these interventions, USAID contracted the services of RTI International,[2] which assigned two work teams—one for Honduras and another one for Ecuador, the two countries selected for the analysis. The evaluation sought to address the following issues:

1. **Creation of a Family Estate**

   Has a family estate been created between 1980 and 2005 for the families that participated in the program, for the families that participated in the process of obtaining houses, and for the families that received improvement benefits?

2. **Reduction of Poverty**

   - Has the social and economic status of the families improved during the period?
   - Has the educational level of the members of the families improved?
   - Has the level of training of the members of the family improved?
   - How has the housing environment in the community changed?
   - What changes have taken place concerning security and delinquency control in the neighborhood?
   - What are the economic capacity ratios of the population?
   - Has there been integration with urban spaces of larger scale?

3. **Social and Economic Systems**

   - What is the comparison of the annual/monthly family incomes in U.S. dollars between 1980 and 2005?
   - What occupational changes have taken place for the head of household and family members between 1980 and 2005?
   - How have the social and economic systems changed?
   - What are the participants' assessments of their social stability, their economic security, and the welfare of their family members?

To answer the questions raised requires a detailed program of investigation and identification of those beneficiaries who, being original participants of the program, were interested in collaborating with the study. In the case of Honduras, the process of identification was a little more complex, not only because of the diversity, but because of

[2] RTI International is a trade name of Research Triangle Institute.

the different number of projects executed, and because the entities that implemented these housing projects no longer exist.

3. Methodology Used

As previously mentioned, to answer the number of questions raised by USAID, it was necessary to design and conduct a survey that would allow direct access to the basic information required and the original project beneficiaries and to select those projects and beneficiaries that would enable the collection of the basic information needed to evaluate the impacts of the projects and the program. One of the problems encountered was the nonexistence of baseline information that would serve as points of comparison. Moreover, RHUDO's offices were transferred to Guatemala at the end of the 1980s, and there is no information about the housing programs in the local Mission.

Anther significant problem was the identification of the projects that should be used for the study. In the 1980s, USAID's Program of Housing and Urban Upgrading, through various secured loans, participated in the financing of a series of projects with varying characteristics and beneficiaries, as follows:

- Housing projects for lower-income families, carried out by public sector entities. The National Housing Institute of Honduras (INVA) implemented the housing projects of Hato de Enmedio and El Sitio, as well as projects for the improvement of houses in Tegucigalpa, San Pedro Sula, and secondary cities, with funds from Loan 522-HG-005.
- Projects for the improvement of marginal communities in the municipalities of Tegucigalpa and San Pedro Sula. Improvements such as installing drinking water facilities and sanitary sewerage systems, paving streets, and building retaining walls and bridges, where more than 40 different infrastructure projects were carried out for the benefit of lower-income families. The funds from this project came from Secured Loan 522-HG-006.
- Housing projects financed by governmental institutions to be carried out by private sector institutions. Within this program, the National Financial Institution for Housing (FINAVI), with funds from Loan 522-HG-007, financed the construction of the housing project Centroamérica Oeste in Tegucigalpa and the projects of Ciudad Satélite, Ciudad Planeta, San Jorge, and La Mora in San Pedro Sula.

To look for greater objectivity in the impact analysis of the projects executed, it was decided to select two housing projects in Tegucigalpa—one clearly successful (Hato de Enmedio), and one not as successful that had problems recognized at the national level (El Sitio). Two projects were selected for urban Upgrading—one successful (the drinking water and sanitary sewerage system project for the Oscar A. Flores neighborhood) and the other not as successful (sanitary sewerage system project for the Bella Vista neighborhood). This was done to include those negative aspects in the analysis that would achieve a more objective evaluation.

The survey thus designed was applied to a sample that included members of the four beneficiary communities: 40% from Hato de Enmedio, 40% from El Sitio, 10% from Oscar A. Flores, and 10% from the Bella Vista neighborhood. After the identification of the original beneficiaries, a random sample was chosen to achieve greater representation in the results.

4. Description of the Projects Selected

4.1 Housing Projects

4.1.1 Hato de Enmedio

The housing project Hato de Enmedio started on November 20, 1980, with the signing of an Implementation Agreement between the Honduran government and USAID, to be financed with funds from the loan for housing guarantee 522 HG 005. According to the Implementation Agreement, the objective of this project was to develop within the INVA the capacity to build and deliver approximately 2,000 low-cost housing solutions annually and 1,000 home-improvement loans. All solutions and loans were required to benefit families with incomes below the median of the two largest population centers of the country. The purpose of the project was to

- finance approximately 4,340 low-cost housing solutions, with prices ranging from $2,500 for lots with services (water, sanitation, etc.) to $4,800 for a house with one or two rooms built on an urbanized lot.
- finance approximately 3,000 loans for home improvements, with an average of $500 per loan, for the lowest-income families. These loans were to be used finance new sanitary units, install electricity, construct additional bedrooms, repair roofs, and improve foundations.
- maintain and promote the training of personnel and the adoption of new procedures to strengthen the senior management at INVA and to ensure adequate management of funds from the institution.

According to the Implementation Agreement, the amounts for housing solutions and loans for home improvement were as follows:

	Lots with Services	Basic Solutions	Low-Cost Housing	Loan for Home Improvements
Cost (1980)	$2,500	$3,400	$4,800	$500
Units	2,150	1,310	860	3,000

To provide a definition and clarify design, it was determined that a “Lot with Services” is a 72 m² lot with an approximately 5 m² sanitary unit. The “Basic Unit” is a 25 m², one-room construction with multiple uses, with all services, and on a 72 m² lot. The “Improved Basic Unit” is a 30 m², two-room basic unit, with all the services, and constructed on a 72 m² lot.

The estimated costs were to be updated throughout the development of the project to account for inflation, without needing to modify the agreement.

The following resources were allocated to finance the project:

1. Loan guaranteed by USAID	$10,500,000
2. Counterpart financing from Honduran government	5,000,000
3. Additional resources from USAID (grants and program development support [PD&S])	400,000
Total	$15,900,000

The project was carried out by INVA and private contractors, for both the infrastructure improvements and the construction of housing units, for which it supplied its own land, the designs of the different types of houses, and the lots with services.

Photo 1. Aerial view, Hato de Enmedio

The project was constructed on land acquired by INVA specifically for this undertaking. The design phase considered all the areas needed for community facilities and recreational areas. The land that was used was located within the city limits of Tegucigalpa, in a zone of urbanization adjacent to another important development, Ciudad Kennedy. The previous photograph shows parts of the land used for the project.

In these photographs, part of the process of construction and the typical front of a Basic Unit can be seen. Its interior, as previously mentioned, has only one 25 m²-room for multiple uses and basic services.

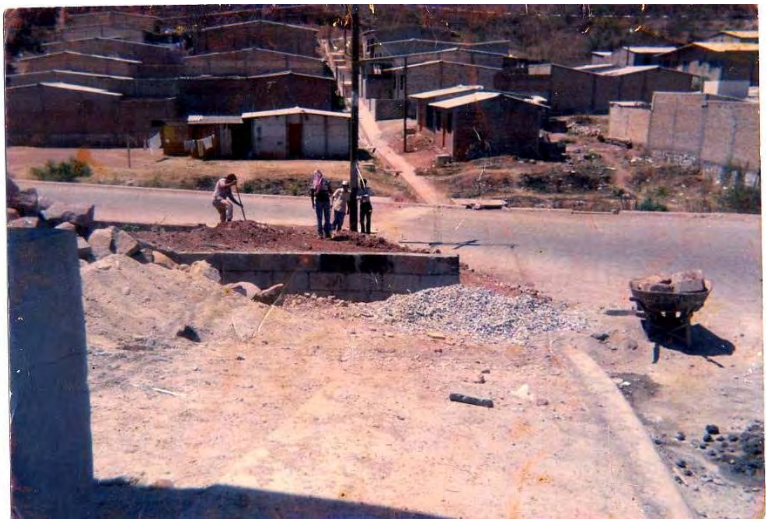


Photo 2. Construction phase, Hato de Enmedio

The home improvement loan component was handled and managed directly by INVA in a division created specifically for this purpose. It is important to mention that the Loan Division for home improvements gave priority to families that bought Sites & Services and Basic Units and therefore increased the benefits of the lower-income families, but at the same time, placed some families in a very precarious position because of the need to amortize two loans. However, over time, this procedure proved to be very efficient in achieving the project's objectives.

Photo 4. Original unit, Hato de Enmedio

The increase in construction costs, both for infrastructure improvement and for housing units, reduced the number of units produced and sold to 3,665, distributed among 865 Sites & Services, 1,500 Basic Units, and 1,300 Improved Units. The home improvement loan component was reduced to $1.0 million.

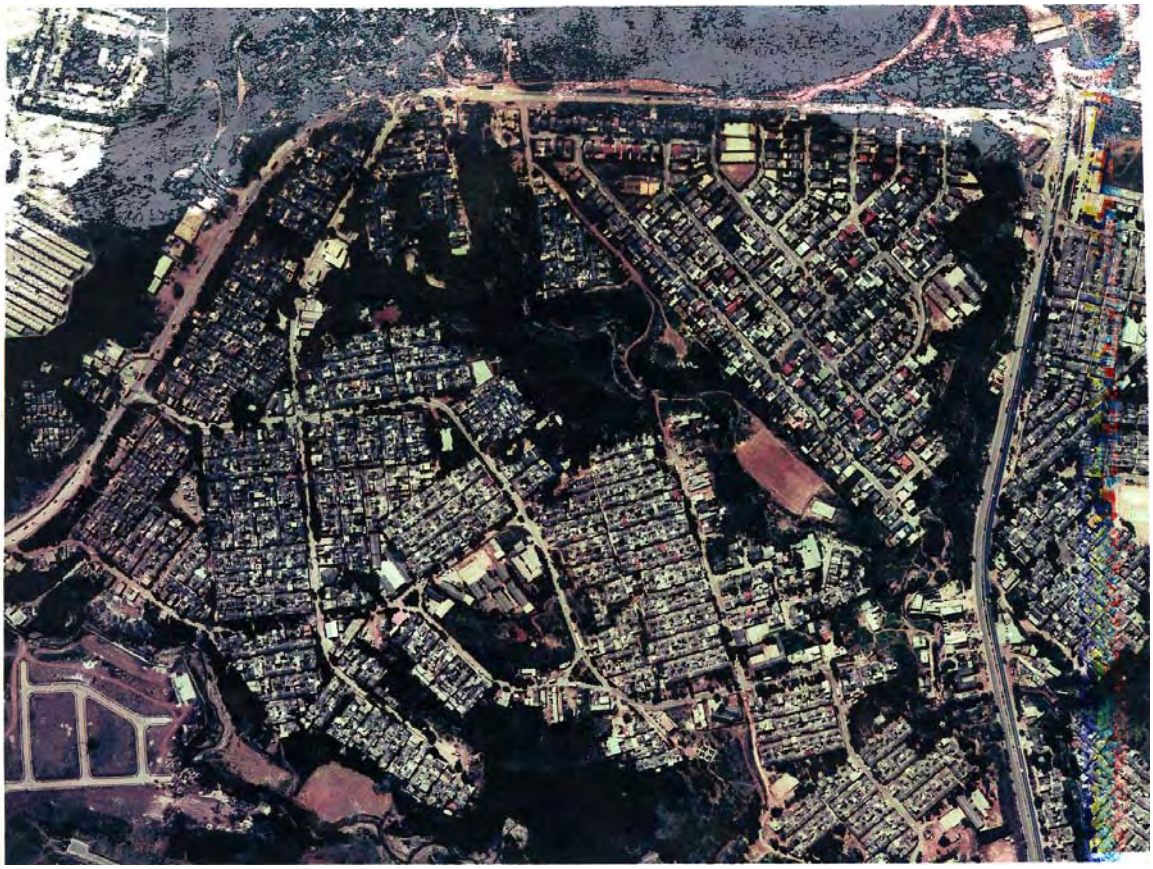


Photo 3. Status of the Hato de Enmedio project as of 1988

Above is an aerial photograph of the project after its completion, taken for cadastral purposes, for the municipality of Tegucigalpa. Basically, it shows the final distribution of the area and the areas of potential projects in regard to roads and highways, such as the ring road currently under construction.

The purchase prices of the finished units were US$3,250 for Sites & Services, US$5,750 for Basic Units, and US$6,750 for Improved Units. By their sales date, these prices reflected minor increases, depending on the financial circumstances of the possible buyers.

With the passing of time, this community that was originally planned to provide solutions for families with an income lower than the city's average has turned into a middle-class community, with structures that exceed initial expectations. The following photographs clearly show these results.

Photo 5. Improved basic unit, Hato de Enmedio

The public services companies have installed all necessary services for the use of the community. Moreover, the community has created its own development rates. The following photographs show the building constructed by the National Telecommunications Company and the development achieved by a commercial area.

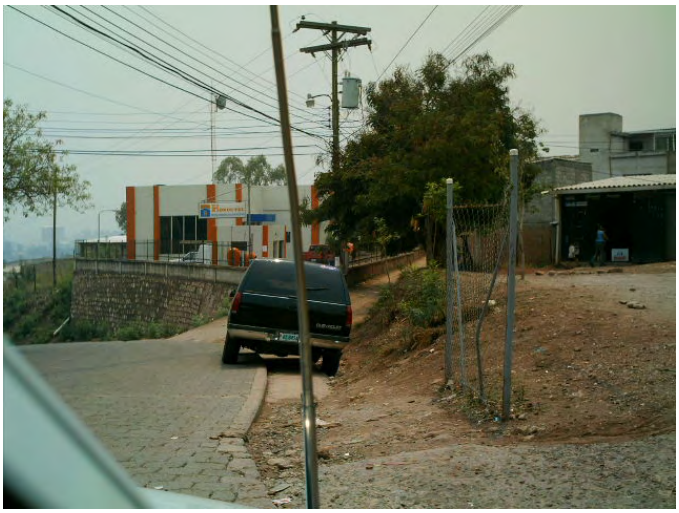


Photo 6. Hato de Enmedio telecommunications network

We consider this project a success, because in addition to its impact on the families, the communities, and the country, which we will analyze later, its development process since selection, construction, and sale presented no special difficulties, from either a technical or a political standpoint.

Photo 7. Commercial area development, Hato de Enmedio

4.1.2 El Sitio Housing Project

The El Sitio housing project started in 1982, with the purpose of testing a new mechanism for the development of housing projects through the private sector. The system known as “turnkey” consists of contracting the purchase of a specific number of finished housing units, including the land, of a negotiated design, at a fixed price. In the case of El Sitio, INVA negotiated with the El Sitio Farming Company about the construction of 1,800 housing units on a tract of land that was owned by the company and located at the exit of Tegucigalpa towards Valle de Ángeles.

The construction of the basic infrastructure (water, sewerage system, electricity distribution networks, public roads, parks, and areas for the installation of community facilities) and of the housing units was financed by the private investor and its cost will be recovered through the delivery of the finished units, pending the full satisfaction of INVA. The supervision of the project is an operation of the contracting entity (INVA), as is the quality of the infrastructure and the houses delivered.

For the financing of the units produced by the contractor, INVA presented to USAID a combination of own funds and resources from project 522-HG-005, which were duly

approved by USAID. This approval is the only existing document, as the development of this project did not appear in any of the documents for authorization of resources and originated as a pilot project, where there were actors willing to participate.

First, we mention a series of events that happened in the process of construction, as these caused difficulties at the initiation of this project.

For the construction of the infrastructure and of the housing units, the contractor had to move large amounts of earth because of the terrain, located at the base of small mountains. This then required a serious effort to compact the moved earth to guarantee its stability and that of the housing units built on it.

The basic services—potable water and sanitary sewerage systems—presented other special challenges to the builder. To provide potable water, builder had to drill wells on the site because SANAA—the National Water and Sewerage Authority—indicated that it did not have the capacity to provide city water to the project. Nevertheless, the quality of the water provided was not fit for human consumption because it was so hard. In the case of the sanitary sewerage system, because the community was constructed outside of the urbanized area of that time, there were no trunk lines to the sewerage system. To solve the problem, the builder decided to construct, near the entrance of the community, an oxidation pond for sewage disposal and treatment and then to discharge the treated sewage to a small gorge near the constructed pond.

In 1983 the El Sitio Farming Company delivered to INVA the first 1,084 housing solutions, of which 970 were allocated to INVA's eligible beneficiary families. With the arrival of the rainy season the problems and tribulations of the project began. Earth that had not been adequately compacted started to settle and walls of built housing began to crack. The community felt that it had been deceived and started a process of claims that continues to this day.

The following picture shows houses that have remained unchanged from their original condition. Basically, these are similar to the houses built at the Hato de Enmedio Project.

The next problem was the drinking water. The community demanded to be supplied with water suitable for human consumption. SANAA indicated that it could not solve this problem because it did not have the financial resources required to do so.

In time, the problem with the oxidation pond became the project's third problem. The residents demanded to be connected to the city's principal sewerage system. Again, SANAA contended that it had no capacity to solve this problem.

Photo 8. Original site, El Sitio

USAID—worried about the various problems with this project—decided to participate, at least partially, in their resolution. It joined in the efforts to properly compact the moved earth and collaborated in the financing of off-site improvements required to address the drinking water and sanitary sewerage system problems. For the drinking water, a pipeline was built from the Picacho water source to the community. For the sanitary sewerage system, a line was built to connect the community's system to the drainage ditch of the San Miguel neighborhood adjacent to El Sitio.

Photo 10. Improved basic unit, El Sitio

Political partisanship added another problem to all these difficulties. The problems with the project attracted the attention not only of the Congress of the Republic but also of the Executive Office. The owner of the contractor El Sitio Farming Company belonged to the opposition party, and therefore started a campaign to benefit politically from the events. The Presidency of the Republic demanded that INVA not only refuse the houses in El Sitio, but also file a legal suit against the contractor to recover the investment. At the same time, the Congress demanded to open an investigation to find out who all the responsible parties were. An order was given to relocate the affected families and/or to return the money paid to whomever so preferred.

During the whole conflict, the only clear results were that the beneficiaries did not make the mortgage payments on their houses, did not relocate, and continued using the situation as a weapon against INVA's efforts to collect monthly mortgage payments. There was such pressure that in 1988, Congress issued a Decree (No. 146-88) demanding the relocation of the affected families with funds from the central government.

A local developer donated 11 blocks of land to be used for the relocation of the families, with the commitment that any land not used within three years would be returned to him. After the three-year period all the land was returned to the developer because nobody wanted to be relocated. Some 170 families preferred to have their money returned. These properties were rehabilitated and reallocated by INVA to other beneficiaries who became new program participants.

In summary, the problems of this project continued until 1995. Today it is a well-developed community, as described later, even though its development cannot be compared with that of other INVA housing projects.

The problems mentioned originated in a delay in the development of the area. It was not until the 1990s that the residents of the community felt confident enough to start improving their properties. However, once the process of improvement started, and because this project is centrally located in the Tegucigalpa Metropolitan Area, its development has accelerated and several types of industrial and educational businesses have located there.

The following photographs show the front part of a bilingual school and a building for offices constructed recently in the community.

Photo 9. Bilingual school, El Sitio

Photo 11. Office building, El Sitio

The Honduras review team considered the El Sitio housing project to be somewhat less successful than the other projects, based on the series of problems it encountered from its inception. INVA completed the units that were not delivered by the contractor and also managed the resolution of all the legal problems. Presently, the project has more than 1,800 families and most of the surrounding areas have been developed. The municipality and the *Patronato* have worked jointly with the Social Housing Fund (FOSOVI), INVA's succeeding institution, to build and equip the facilities required for a fully serviced community. For this reason, the project finally achieved its initial development objectives in record time of just a few years.

4.1.3 Impact of the Housing Investments from USAID in Honduras

Impact in the creation of a family estate

The first question from USAID inquired about the creation of a family estate. The original price of the houses varied between $3,250 (Lps. 6500 at an exchange rate of Lps. 2 per US$1) for Sites & Services, $5,750 for Basic Units, and $6,750 for Improved Basic Units.

As previously mentioned, the project had a combination of Sites & Services lots, Basic Units, and Improved Basic Units. When the interviewed families were asked about the values paid for their homes, answers ranged from $2,500 to $27,500, with an average of $6,000. The reason for the differences in these values is that the persons who bought the lots with services allocated to the original cost the value of the first construction.

The population interviewed was very reluctant to estimate the current values of their houses. However, from the answers obtained and from investigations of the market price, we found that the 2005 average price of a house is $20,000. This average is too broad, however, as the photographs of the project revealed houses valued up to $150,000 (which were not part of the survey). If we accept the statistical data for discussion purposes, we find that value of the houses has increased to 233% of their original value (see Exhibit V1).

Improvement and modifications of the houses

Family wealth is not measured totally by the change in the value of the property, but instead is a combination of savings (represented by the property improvements) and the real estate appraisal. It was interesting, however, to hear from one owner when asked about the sale price of his property; his statement was that he would sell it "for nothing in the world. This has taken me a life to develop and I do not want to lose it."

All the houses surveyed showed some form of modification. No lots were found without any construction on them. All have added a porch in the front to connect it to the social area of the property. The most common addition—one that cannot be viewed from outside—is the addition of two rooms at the back of the lots. It appears that the same contractor built all of them, as the shape of the construction is identical. Photo No. 5 illustrates how great the investments in the properties have been in these communities: 93% of the owners have modified their houses to enlarge the residential area and 96% said they needed an additional area to absorb the growth in their families.

To finance the modifications to the houses, 55% of the persons interviewed said they did it with their own resources (as a reflection of the lack of financing resources for these purposes), 15% with financing from a public entity (pension funds for teachers and public employees) and 10% with financing from private banks.

Exhibit V1. Creation of a family estate: Hato de Enmedio and El Sitio neighborhoods

Original Cost	Expected Sale Price	Difference
$6,000.00	$20,000.00	$14,000.00
Percentage of Appreciation	233%	

Contribution of the projects to family welfare

To learn how the projects have contributed to family welfare, we analyzed the survey results. The social and economic changes that have affected the families, and the changes in the occupational level of family members, are summarized below.

Family welfare is measured by the level two which the family's needs have been met for furnishings and equipment to make life at home more pleasant. Originally the families did not have many home appliances. Presently, the families have ovens, kitchens, washing machines, and (in some cases) air conditioning. In addition, 46% (43+3) of the families surveyed now have a car for transportation. Exhibit V2 shows how the families' household goods have evolved.

Exhibit V2. Change in the social and economic situation of the family: Hato de Enmedio and El Sitio neighborhoods

Household Goods	Originally		%	Currently		%	% Change
	Yes	No		Yes	No		
Refrigerator	57	29	63	84	2	93	30
Kitchen	70	16	78	85	1	94	17
Oven	20	65	22	67	19	74	52
Washing machine	1	83	1	35	46	39	38
TV	79	7	88	84	1	93	6
Air conditioning	0	84	0	6	73	7	7
Motorcycle	2	83	2	3	82	3	1
Car	8	77	9	39	42	43	34
Computer	0	82	0	31	55	34	34

Another indicator of change in family welfare is the change experienced by the family in the occupational level of its members. Exhibit V3 shows us an interesting phenomenon: how the members of the family moved from their occupations in lower-level jobs in the occupational scale to higher-level occupations. The major change has been from laborer and artisan positions to merchants and university professionals. Initially 40% of the persons interviewed were laborers; only 31% of them continue in the same situation now. The most significant change has taken place at the university professional level, where almost 15% of the persons interviewed are now professionals. Exhibit V3 shows the results of the persons surveyed. This occupational change is the result of changes in the educational attainment of the family.

Exhibit V3. Change in the occupational level of the family: Hato de Enmedio and El Sitio neighborhoods

Occupation	Originally		Currently		Difference %
	No. of Persons	%	No. of Persons	%	
Worker	42	40.4	49	31.6	-8.8
Artisan	7	6.7	8	5.2	-1.5
Driver	3	2.9	7	4.5	1.6
Merchant	12	11.5	25	16.1	4.6
Teacher	10	9.6	15	9.7	0.1
University professional	9	8.7	23	14.8	6.1
Student	13	12.5	11	7.1	-5.4
Policeman	1	1	3	1.9	0.9
Doctor	2	1.9	2	1.3	-0.6
Waiter	1	1	2	1.3	0.3
Domestic employee (maid or housekeeper)	1	1	4	2.6	1.6
Others	3	2.9	6	3.9	1

Health is one of the main indicators of the level of well-being achieved. The families of the housing projects of Hato de Enmedio and El Sitio reported, with few exceptions, that they were in good health. The most common diseases noted were respiratory diseases and diarrhea in children. In both El Hato and El Sitio, the government has installed Cesar Health Centers with a doctor and two nurses to offer first aid to the residents.

Of the families interviewed, the heads of household and the other members as well reported being in good or very good health. In the neighborhoods analyzed, 87.3% of the heads of household answered that they were in good or very good health. The other members were stated to be in good health also (see Exhibit V10).

Exhibit V10. Family welfare, health situation: Hato de Enmedio and El Sitio neighborhoods

Person 1 or head of household	Very good		Good		Bad		Very bad	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
	48	55.17	28	32.18	7	8.08	0	0
Other members								
Person 2	54	62.07	17	19.54	4	4.6	0	0
Person 3	45	51.72	15	17.24	0	0	0	0
Person 4	35	40.23	11	12.64	0	0	0	0
Person 5	24	27.59	8	9.2	0	0	0	0
Person 6	14	16.09	5	5.75	0	0	0	0
Person 7	9	10.34	4	4.6	0	0	0	0
Person 8	6	6.9	1	1.15	0	0	0	0
Person 9	3	3.45	1	1.15	0	0	0	0
Person 10	1	1.15	0	0	0	0	0	0
Person 11	0	0	0	0	0	0	0	0
Person 12	0	0	0	0	0	0	0	0

The housing projects and the reduction of poverty

Changes in income of persons – The original residents of the communities surveyed were employed as workers, guards, and other lower-income positions. As a consequence of improvements in the occupational levels and increases in educational levels, the families members' income levels have changed. Exhibit V4 shows the distribution of income of the persons interviewed and changes over time.

Analyzed in 1980 dollars (Lps. 2 = 1US$) versus 2005 dollars (Lps. 20 = 1US$), the displacement in the salary scale of the persons interviewed can be observed. Income that in the 1980s appeared in the scale of salaries at less than $200 per month, at present appears in the range $200 to $600.

Exhibit V4. Change in the level of income of the members of the family: Hato de Enmedio and El Sitio neighborhoods

Income per Month in US$	Originally		Currently		% Change
	No. of Persons	%	No. of Persons	%	
50 – 100	49	52.1	5	3.3	-48.8
101 – 200	35	37.2	45	30	-7.2
201 – 400	6	6.4	54	36	29.6
401 – 600	3	3.2	25	16.7	13.5
601 – 1000	1	1.1	17	11.3	10.2
1500 – 2000	0	0	4	2.7	2.7
2000+	0	0	0	0	0

Changes in business income – The growth in income of the members of the community has had a definite impact on the community businesses and on the number of jobs generated. In the beginning there were very few businesses, which is understandable given that the original residents came from the working class. In time, as specialization grew and income increased, there was a shift of the families toward the creation of their own businesses. Exhibits V5 and V6 show how the income of businesses has shifted. The changes seen in this group also have been reflected in the global changes in the community.

Exhibit V5. Changes in businesses: Hato de Enmedio and El Sitio neighborhoods

Number of Businesses in the Community	Originally			Currently			% Change
	No. Businesses	No. Surveyed	%	No. Businesses	No. Surveyed	%	
	13	87	14.94	33	87	37.93	22.99

Exhibit V6. Changes in business income: Hato de En medio and El Sitio neighborhoods

Income per Month in US$	Originally			Currently			% Change
	No. Businesses	No. Surveyed	%	No. Businesses	No. Surveyed	%	
50 – 100	8	87	9.20	4	87	4.60	-4.60
101 – 200	4	87	4.60	4	87	4.60	0.00
201 – 400	0	87	0.00	9	87	10.34	10.34
401 – 600	1	87	0.00	8	87	9.20	9.20
601 – 1000	0	87	0.00	4	87	4.60	4.60
1500 – 2000	0	87	0.00	1	87	1.15	1.15
2000+	0	87	0.00	1	87	1.15	1.15

Impact on the services to the community

Drinking water, sewerage system, and electricity – Originally the housing projects financed by USAID demanded that the houses be supplied with all the basic services of drinking water, sewerage, and electricity. Consequently, the participants from the communities interviewed stated that they had these services originally and at present. However, after more than 20 years, is it also important to know how these services operate.

It is known that the duration of the infrastructure is limited and the extent of its useful life depends on the maintenance provided. When we asked the members of the communities if the services had improved, gotten worse, or stayed the same, the answers were almost identical, both at the beginning and in 2005. The smaller overall percentage of people who said the services had improved (about 50%) is due to the El Sitio project, where the problems of the water and the sewerage system had a significant effect, as mentioned before.

Basic community services – The original design of the projects took into consideration the government's obligation to provide all the additional services to the community. However, the political and economic situation of the country delayed the installation of services for the satisfaction of basic needs such as education and health. The authority invested in community organizations (*Patronatos*) and improvements in the families' economic status accelerated the process of provision of services. Currently, the communities have public and private schools, hospitals, and clinics.

Educational activities increased from 5%, for elementary school and high school as well, to the present 85% level of service among the persons interviewed. The telephone service expanded to the communities, reaching 73% of the houses. Exhibit V7 shows the services rendered to the communities surveyed.

Exhibit V7. Changes in basic support services for the community: Hato de Enmedio and El Sitio neighborhoods

Community Services	Number of Families that Responded Positively						% Change
	Originally			Currently			
	Yes	No	% yes	Yes	No	% yes	
Elementary school	5	78	12.82	85	1	217.95	205.13
High school	5	78	12.82	84	2	215.38	202.56
Public hospital	2	81	5.13	79	6	202.56	197.44
Private hospital	2	81	5.13	55	31	141.03	135.90
Private clinic	3	79	7.69	72	14	184.62	176.92
Drugstore	4	78	10.26	54	32	138.46	128.21
Public/community telephone	5	77	12.82	73	13	187.18	174.36
Post office	4	73	10.26	19	63	48.72	38.46
Bus stop	33	50	84.62	84	2	215.38	130.77
Bank	2	81	5.13	47	39	120.51	115.38
Police station	3	79	7.69	81	5	207.69	200.00
Community center	1	80	2.56	55	30	141.03	138.46
Parks	3	77	7.69	56	30	143.59	135.90

Other community services – As these communities developed, and under the direction of their leaders, the neighborhoods were added to the urban transportation routes. At about the same time, public lighting and security services were included. Despite economic problems and a shortage of public security, Hato de Enmedio neighborhood has two police stations that are open 24 hours a day. Community centers have been constructed for special meetings, as have parks and banking facilities. Exhibits V7, V8, and V9 summarize the services offered in the surveyed communities.

Exhibits V7 and V8 show the changes in the provision of services to the communities analyzed. Services such as private banks, hospitals, private clinics, and high schools, among others give a clear idea of the progress of these housing developments.

Exhibit V8. Trends in living conditions since 1984: Hato de Enmedio and El Sitio neighborhoods

Type of Service	Has Improved		Has Gotten Worse		Remains the Same	
	No. of Persons	%	No. of Persons	%	No. of Persons	%
Living conditions	73	83.9	10	11.5	3	3.4
Streets or roads	57	65.5	13	14.9	16	18.4
Transportation	61	70.1	3	3.4	22	25.3
Public lighting	54	62.1	10	11.5	22	25.3
Security	23	26.4	27	31	35	40.2

Exhibit V9. Basic infrastructure services: Hato de Enmedio and El Sitio neighborhoods

Public service	Originally			Currently			Difference		
	Good	Normal	Bad	Good	Normal	Bad	Good	Normal	Bad
Drinking water	50	14	21	50	27	9	0	13	-12
Sewerage system	73	8	4	74	10	2	1	2	-2
Electricity	65	13	6	72	12	1	7	-1	-5
Garbage collection system	55	14	14	62	17	5	7	3	-9

4.2 Urban Improvement Projects

The urban upgrading program, known as the Program for Upgrading of Marginal Communities, started on June 6, 1980, with the signing of the Implementation Agreement for 522-HG-006. The objective of the programs was to improve the capacity of the local governments of Tegucigalpa and San Pedro Sula to carry out cost-recovery projects for upgrading marginal communities at a level sufficient to reduce existing deficiencies in housing and basic services.

According to the program, the basic services eligible for financing are drinking water, sanitary sewerage system, electricity, lighting, street paving, pedestrian paths, storm drainage, and retaining walls, among others. The decision on which upgrading activities to implement was made by the municipal administrations with prior USAID approval.

According to the program, the eligibility criteria should meet certain conditions:

- The community project to be developed responds to the expressed needs of the beneficiary group—that is, lack of access to basic public services. A high proportion of houses require improvements and residents of the community have incomes below the average for the municipality.
- The community has the necessary features to remain as a permanent community. That is, the government does not plan any public construction there that may affect the habitability of the land, the environmental conditions are appropriate, and if there are any problems concerning land ownership, they can be resolved by the municipality.
- The community accepts the investments to be carried out and also agrees to the monthly payments required to recover the cost of the investments.
- All the conditions necessary to implement and finance the upgrading activities are met and the implementing institution is committed to providing preventive and corrective maintenance for the operation of the system.

The resources allocated for the program were as follows: from USAID, $10,000,000 from the Housing Guaranty program, project 522-HG-006; $200,000 for the provision of technical assistance; and $150,000 of grant funds from the Integrated Improvement Program for the Urban Poor (IIPUP). From the government of Honduras: $2,500,000

from the municipalities ($2,000,000 from Tegucigalpa and $500,000 from San Pedro Sula) and all the in-kind costs, including the land needed.

It was expected that the resources of the project would benefit approximately 43,000 families in Tegucigalpa and 26,000 in San Pedro Sula. However, during the implementation phase it was decided to allocate approximately $4 million in combination with investment funds from San Pedro Sula through the Municipal Water Division (DIMA), which resulted in a series of projects that benefited more than 40,000 families. Rather than providing individual benefits, the result was a general water program for San Pedro Sula.

In Tegucigalpa, approximately 25 projects involving drinking water, sewerage, street paving, and retaining walls were carried out through an Implementation Unit created for that purpose. The Unit also was in charge of recovering the cost of the investments through systems of Contributions for Improvements. The Contribution for Improvements Office still exists and continues recovering costs of both projects within the program, and other activities implemented by the municipality as well. Within the projects executed we can cite:

- **Drinking Water and Sewerage System**
  Tres de Mayo Neighborhood
  La Laguna Neighborhood
  El Pastel District
  La Flor No. 1
  La Flor No. 2
  San José Neighborhood
  La Pena Neighborhood
  San Miguel Neighborhood
  Bella Vista Neighborhood
  Sagastume Neighborhood
  Policarpo Paz García
  San Francisco
  La Esperanza
  Oscar A. Flores
  Montes de Sinai

- **Street Paving and Retaining Walls**
  Villa Adela District
  Guanacaste District
  Guadalupe District
  Ganada Pedregalito Access
  El Manchén District

21 de Octubre Neighborhood
El Calvario District
Lempira District
"Los Indios" Street
Las Mercedes Stages I, II, and III Neighborhoods.

All the communities benefited have been upgraded and to a great extent they have obtained other public services from the municipality and the service companies, depending on the strength of the community organizations and the interest of their leaders.

4.2.1 Drinking Water and Sewerage System Project, Oscar A. Flores

The Oscar A. Flores neighborhood was founded by the Metropolitan Council of the Central District (CMDC), today the Municipality of Tegucigalpa, in 1980, in response to the need to relocate a group of families that were housed in a landslide area (the high district of El Chile) and along the banks of Río Choluteca. These properties belonged to CMDC and were sold to the members of the community as simple lots, without any basic services. The only features they had were unpaved streets and pedestrian paths. The first basic service installed was electricity, funded by a European grant, but the drinking water, sewerage system, and street paving took more time. The residents of the community bathed and washed their clothes in a gorge near the community and brought the water for human consumption from a community nearby (nearly 12 blocks away). Later on, SANAA installed a public water tap that was located approximately five blocks from the center of the community, where there was a person in charge of selling the water and paying SANAA for global consumption.

At the beginning of the Urban Upgrading Project for Marginal Communities, the CMDC requested of USAID that this community be considered eligible for the installation of a drinking water system and the construction of a sewerage system. After a series of meetings between USAID and the community and with the commitment of the residents to pay CMDC the value of the investments, the project was implemented to benefit 250 families. Initial coverage was one of the main problems, as the community was not sufficiently consolidated and a series of lots had not yet been allocated, thereby raising the price of the project. The *Patronato* and the CMDC committed to allocate the remaining lots under the condition that anyone awarded a lot would agree to tie in to the services and pay the corresponding cost. Today all the lots are occupied and the cost of the investments has been fully recovered.

It is interesting that the per-family cost to install drinking water and the sanitary sewerage system was higher than the value of the lot. (The allocation and price of the lots were based on political promotion criteria rather than sale at the market price.) However, when the head of the *Patronato* attempted to impress the CMDC representatives by stating that under those conditions (i.e., cost of services higher than cost of the property), they did not want the project, the community kicked him out and elected another person to continue with the project until its completion.

Photo 12. Unimproved street, Oscar A. Flores

Photo 13. Paved street, Oscar A. Flores

Today, the Oscar A. Flores community is completely paved, and has earned prizes from the municipality for its cleanliness and conservation of the environment. The *Patronato* has worked with the education and health authorities to bring about the installation of a health center (in process) and two schools for the children of the community.

In the photograph at left, the original condition of the streets of the community can be judged. Moving from one place to another cost the residents a significant effort. After the installation of the water pipeline and the sanitary sewerage system, not only did the process of home improvements begin, but also the *Patronato* applied pressure for street repairs and other necessary services.

Houses that were mostly wooden at the beginning were converted into structures made of permanent and even luxurious materials.

Photo 14. Housing unit in the process of expansion

Photo 15. Improved unit, Oscar A. Flores

4.2.2 Sanitary Sewerage System: Bella Vista Neighborhood

The Bella Vista neighborhood is one of the most centrally located communities of Comayaguela. However, it has not benefited from cooperation with the authorities to obtain adequate development, mainly because of the geographical size and the seismological problems of the area where it is located. At least, this is the argument that the municipal authorities offer to the members of the community when they request improvements. More than 20 years after the installation of the sewerage system, the community's streets still are not paved. A program of the European Community appears to have given the *Patronato* some hope for the financing of the project, if the municipality will guarantee that it will repair the sewerage system during the construction.

This project's problems originated at its inception. The eligibility study required the municipality to guarantee that the designated public land was appropriate for the upgrading activity—i.e., that there were no plans for other municipal construction and that the land was geologically safe. At the presentation of the study the municipality guaranteed, with the signature of the mayor, that the community complied with all the requirements. However, after the construction, the land has failed in 11 locations. Moreover, even though the municipality and SANAA have repaired the failures and the sewerage system is working, the neighbors believe they have been seriously affected by the lack of urban upgrading of the community. In 2000, the members of the community changed the leaders of the *Patronato* and according to their current president, they are willing to make whatever effort is necessary to bring satisfaction to the members of the community.

As a community established years ago, the land is fully occupied. The project was carried out to benefit 180 families. Today the number of beneficiaries is less because some families have been relocated after natural disasters, which have increased the danger in some areas of the community. The landslide areas have been stabilized and it is expected that the financing necessary for a program of retaining walls and further stabilization of the land will be obtained.

As expected, this community has developed less quickly than communities in stable areas. Even today, the majority of streets are unpaved, thereby creating traffic problems, health issues, and discouragement of the residents concerning home improvements.

Photo 16. Current view of a street in Bella Vista

The condition of the streets can be well appreciated in this photograph, as well as the lack of garbage collection and sanitation and the deteriorated condition of the houses. Currently, the community has chosen a *Patronato* directed by professionals, who have many plans and enthusiasm. We expect they will succeed in their duties, as the Bella Vista Community is a fairly central area that merits more attention from the authorities.

Photo 17. Improved housing unit, Bella Vista

This photograph shows that in Bella Vista, there are also houses that have been improved more than others in the area.

4.2.3 Impact of USAID Investments in Urban Upgrading

Generation of wealth in the projects for upgrading marginal communities

We carried out separate analyses for the housing projects and those for upgrading marginal communities, with the idea that the results would be very different: The housing programs were constructed under standards for development and basic public services, while the marginal communities were settled initially through land invasions by families squatting on lots, without any type of planning. Later the ownership of the land that was invaded was legalized almost by force.

The lots in these developments had a symbolic (rather than market) price, and the construction started with wooden debris, cans, and even cotton and plastic canvas. For this reason, the change in the value of the property is almost spectacular. The investments carried out were very slow, as in the majority of cases they were carried out with the

residents' own funds. The majority of household heads did not work in the formal sector and therefore could not have access to formal credit.

The original price paid for the housing solutions in these communities varied between $380 and $3750. These values include the original investment that, as said before, had a minimum value due to the nature of the structures. However, once the titling problems were solved and the serious investment process began, the resulting values were surprising. The average estimated current value was $20,000 in the case of the housing projects. (This average omits one outlier, a house in Bella Vista valued at $150,000.) As shown in Exhibit UD1, the difference between the average original cost and current market value is almost 1200%. Photos 14 and 15 above affirm these findings.

Exhibit UD1. Creation of a family estate: Bella Vista and Oscar A. Flores neighborhoods

Original Cost	Expected Sale Price	Difference
$1,548.00	$20,000.00	$18,452.00
Percentage increase in value: 1192%		

In this case, the families' overall wealth deserves more attention, as almost all of it derived from their own resources. As said before, few of the residents had access to any type of credit, and most were working in the lowest paying jobs on the occupational scale.

Home improvements

Once the projects of the Upgrading of Marginal Communities program were completed and the land titling problems were solved, the owners of these communities became interested in upgrading their houses. Of the interviewed persons who had modified their houses, 82% said they had expanded their houses to improve (increase) the housing space. Of these respondents, 82.4% confirmed that the investments were carried out with their own resources.

Contribution to family welfare

The sense of security in terms of property ownership and changes in income levels turned into improvements in the families' living conditions. That is, the families could acquire the furnishings they needed for a more comfortable lifestyle. The changes in the social and economic situation of the family, the occupational level of the members of the family, and the level of family income are closely related. The majority of these families started practically from zero; after they achieved a level of security, they began their socioeconomic improvement, which also corresponds with better academic—and therefore occupational—levels.

Exhibit UD2 shows the economic evolution of these families very clearly. With an increase in stability, families that had nothing initially began to furnish themselves with conveniences. In the beginning, nobody had a car, whereas almost half of the persons

interviewed in 2005 stated they had one car now. Only one person had a washing machine at the outset, but six persons have one now.

Exhibit UD2. Change in the socioeconomic situation of the family: Bella Vista and Oscar A. Flores neighborhoods

Household Goods	Originally		%	Currently		%	% Change
	Yes	No		Yes	No		
Refrigerator	4	20	8	21	3	44	35
Kitchen	7	17	15	22	2	46	31
Oven	3	21	6	11	13	23	17
Washing machine	1	23	2	6	18	13	10
Tv	9	15	19	24	0	50	31
Air conditioning	0	24	0	1	23	2	2
Motorcycle	0	24	0	0	24	0	0
Car	0	24	0	9	15	38	38
Computer	2	22	4	3	21	6	2

Family economic well-being is also indexed to the occupational improvements. In marginal communities, the most common occupation of the residents is laborer. In the case of our interviewed persons, 55.6% had an occupation at this level. In time, the occupations shifted toward commerce (21.7%) and better-paying office jobs.

Exhibit UD3 shows the changes in occupational categories. Of note is the percentage (4.3%) in these communities that have become university professionals. The change in the occupational situation is a consequence of the better educational level. The younger members of the population have better positions and therefore better income, which means a better standard of living.

Exhibit UD3. Change in the Occupational Level of the Family: Bella Vista and Oscar A. Flores neighborhoods

Occupation	Originally		Currently		% Change
	No. of Persons	%	No. of Persons	%	
Worker	10	55.6	27	58.7	3.1
Artisan	1	5.6	1	2.2	-3.4
Driver	0	0	2	4.3	4.3
Merchant	5	27.8	10	21.7	-6.1
Teacher	0	0	0	0	0
University professional	0	0	2	4.3	4.3
Student	0	0	0	0	0
Doctor	1	5.6	1	2.2	-3.4
Domestic worker (maid or housekeeper)	1	5.6	2	4.3	-1.3
Others	0	0	1	2.2	2.2

Health is another index of family well-being. In most cases, the health of the families interviewed was reported as good, especially after they had access to drinking water and sewerage systems. Children had better development outcomes and health expenses were reduced. According to the persons interviewed, 95% of the family heads were in good or very good health. Similar responses were given for the other members of the family (see Exhibit UD10).

Exhibit UD10. Family well-being, health situation: Hato de Enmedio and El Sitio neighborhoods

Person 1 or head of household	Very good		Good		Bad		Very bad	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
	48	55.17	28	32.18	7	8.05	0	0
Other members								
Person 2	54	62.07	17	19.54	4	4.6	0	0
Person 3	45	51.72	15	17.24	0	0	0	0
Person 4	35	40.23	11	12.64	0	0	0	0
Person 5	24	27.59	8	9.2	0	0	0	0
Person 6	14	16.09	5	5.75	0	0	0	0
Person 7	9	10.34	4	4.6	0	0	0	0
Person 8	6	6.9	1	1.15	0	0	0	0
Person 9	3	3.45	1	1.15	0	0	0	0
Person 10	1	1.15	0	0	0	0	0	0
Person 11	0	0	0	0	0	0	0	0
Person 12	0	0	0	0	0	0	0	0

Urban improvements and poverty reduction

Changes in family income – The top of the occupational scale results in better family welfare, represented through better living conditions. Exhibit UD2 above illustrates how the families have supplied themselves with conveniences they did not have at first. This change stemmed from substantial changes in the level of income. At the beginning, almost all the families were unemployed; currently they are considered middle-income (Exhibit UD4).

All the families interviewed said they earned less than $200 per month. Currently 45% earn between $200 and $600. This increase in income levels should be reflected in improvements in the general conditions of the family.

Exhibit UD4. Change in the level of income of the members of the family: Bella Vista and Oscar A. Flores neighborhoods

Income per Month in US$	Originally		Currently		% Change
	No. of Persons	%	No. of Persons	%	
50 – 100	9	60	5	11.9	-48.1
101 – 200	6	40	16	38.1	-1.9
201 – 400	0	0	14	33.3	33.3
401 – 600	0	0	6	14.3	14.3
601 – 1000	0	0	0	0	0
1500 – 2000	0	0	1	2.4	2.4
2000+	0	0	0	0	0

Changes in business income – The changes that originated in the family groups were repeated at the level of the whole community. The change in the amount of business activity (Exhibit UD5), combined with the change in the level of business income (Exhibit UD6), also corresponds to changes in the number of conveniences and facilities that the community enjoys (see Exhibit UD7 further below). Income for businesses in the marginal communities, in the same manner as income, moved toward the middle: 35% of the persons interviewed now earn between $200 and $600.

In summary, all these family changes have counterparts at the community level.

Exhibit UD5. Changes in business activity: Bella Vista and Oscar A. Flores neighborhoods

Number of Businesses in the Community	Originally			Currently			% Change
	No. of Businesses	No. Interviewed	%	No. of Businesses	No. Interviewed	%	
	3	24	12.50	13	24	54.17	41.67

Exhibit UD6. Changes in business income: Bella Vista and Oscar A. Flores neighborhoods

Income per Month in US$	Originally			Currently			% Change
	No. of Businesses	No. Interviewed	%	No. of Businesses	No. Interviewed	%	
50 – 100	4	24	16.67	3	24	12.50	-4.17
101 – 200	0	0	0.00	4	24	16.67	16.67
201 – 400	0	0	0.00	4	24	16.67	16.67
401 – 600	0	0	0.00	4	24	16.67	16.67
601 – 1000	0	0	0.00	1	24	4.17	4.17
1500 – 2000	0	0	0.00	0	0	0.00	0.00
2000+	0	0	0.00	0	0	0.00	0.00

Impact on community services

Drinking water, sanitary sewerage system, and electricity – In these communities, the first service installed (sometimes even before land ownership and titling had been clarified) was electricity. If the enterprise in charge of supplying the service did not install it, the members of the community brought in the lines themselves and connected them clandestinely. The next event was pressure to solve the land-tenure issues, or at least to obtain a promise of solution. For the legal installation of electricity, the community contributed 50% (generally contributed by a donor) and the electric utility the other 50%. When the Upgrading Program for Improvement of Marginal Communities started, the communities already had electricity.

Drinking water and sanitary sewerage systems were the most typical interventions of USAID projects in Tegucigalpa and in San Pedro Sula as well. These projects fostered the development process in these communities.

Community services – The communities that originally did not have any public services or community facilities have become middle-class communities where skilled and intermediate workers and university professionals live. This change has allowed them to put pressure on the local authorities for a response to their demands. At the same time, they have more resources to participate in the financing of community facilities. Exhibit UD7 shows the changes that happened in these communities in the period studied.

Originally they had no public schools; now they have services that are scarce even in higher-income communities, such as telephone connections.

Exhibit UD7. Changes in the quality of life of the community: Bella Vista and Oscar A. Flores neighborhoods

	Number of Families that Responded Positively						
	Originally			Currently			
Community services	Yes	No	% yes	Yes	No	% yes	% Change
Elementary school	3	21	7.69	24	0	61.54	53.85
High school	1	23	2.56	11	13	28.21	25.64
Public hospital	3	21	7.69	16	8	41.03	33.33
Private hospital	1	23	2.56	12	12	30.77	28.21
Private clinic	1	23	2.56	11	13	28.21	25.64
Drugstore	0	24	0.00	9	15	23.08	23.08
Public/community telephone	1	23	2.56	19	5	48.72	46.15
Post office	1	23	2.56	2	22	5.13	2.56
Bus stop	2	22	5.13	9	15	23.08	17.95
Bank	3	21	7.69	9	15	23.08	15.38
Police station	3	21	7.69	9	15	23.08	15.38
Community center	1	23	2.56	3	21	7.69	5.13
Parks	0	24	0.00	15	9	38.46	38.46

At first, the Oscar A. Flores and Bella Vista communities lacked almost all basic public services. Asked in the surveys about their level of satisfaction with public services and their housing environment, 83% of the families (Exhibit UD8) stated that all the services and their housing environment had improved since the projects were carried out. This improvement was also relative, as the results were directly connected to the activity of the community leaders. In Oscar A. Flores, 70.8% believed that the street improvements had been very important. Initially the streets of this community were practically impassable. Today, more than 70% of the neighborhood is paved.

Unfortunately, the situation is not the same in the Bella Vista community, where the problems that originated with the sewerage system have not allowed its improvement. In fact, the sewerage system does operate with a certain level of efficiency. However, the location of the community, in a seismologically unstable area, discourages donors from assisting. Exhibit UD9 appears to indicate that the service is normal, but the Municipality of Tegucigalpa is not interested in investing in street paving until the problem of the sewerage system is solved.

Exhibit UD8. Trends in living conditions since 1984: Bella Vista and Oscar A. Flores neighborhoods

Type of Service	Has Improved		Has Gotten Worse		Remains the Same	
	No. of Persons	%	No. of Persons	%	No. of Persons	%
Community living conditions	20	83.3	1	4.2	3	12.5
Streets or roads	17	70.8	1	4.2	6	25
Transportation	10	41.7	2	8.3	12	50
Public lighting	18	75	1	4.2	5	20.8
Security	1	4.2	8	33.3	15	62.5

Exhibit UD9. Basic infrastructure: Bella Vista and Oscar A. Flores neighborhoods

Public Service	Originally			Currently			Difference		
	Good	Normal	Bad	Good	Normal	Bad	Good	Normal	Bad
Drinking water	4	4	15	16	8	0	12	4	-15
Sewerage system	4	2	17	17	6	1	13	4	-16
Electricity	8	4	12	22	2	0	14	-2	-12
Garbage collection system	12	3	9	18	3	3	6	0	-6

5. Synthesis of the Housing and Urban Upgrading Programs

5.1 Contribution of the Programs to the Creation of Family Estates

Despite the diversity of the projects and their conditions of development, a comprehensive analysis of the results allows some conclusions about the USAID Program of Housing and Urban Upgrading in Honduras. Obviously, the participating families have generated some wealth. Family investments in their housing have

quintupled in value. Exhibit CG1 shows the average economic changes among the program participants. Although one way to look at the issue is that as much as 40% of the loan amount was lost to the U.S. government because of Honduras's nonrepayment of the HG loans (this is an extreme figure, not one identified through rigorous analysis), another way to see it is that the same 40% was invested in assets in a way that quintupled the value of the properties in the programs developed in the country.

Exhibit CG1. Creation of family estates: Hato de Enmedia, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Original Cost	Expected Sale Price	Difference
$3,211.00	$19,688.00	$16,477.00
Percentage Increase in Value: 513%		

5.2 Home Improvements and Additions

We cannot guarantee, but according to our observation, more than 95% of the properties in Honduras have been substantially modified. With very few exceptions, even the poorest houses added a "social area" with a porch, to visually connect the yard with the house. It was very common for families to add two rooms at the back of the lot. The researchers were very interested in the typical story of how one resident of a marginal district constructed his house. First, he constructed a wooden house to live in with his family. When he had the resources, he started additional construction with more permanent materials around the wooden house. In this way, he did not have to abandon his house to construct the new one.

In each type of project, the generation of a comfortable, progressive house to satisfy the needs of the family appears to be a common denominator. It is important that the main source of funding for home improvements was the resources of the owners themselves. Another important source of financing was state institutions (pension funds for teachers and public employees), a source of funds that is easily accessible and offers low interest rates.

5.3 Contributions of the Program to Family Welfare

The change in home furnishings was selected as an index of the welfare of the families. In individual observations for each type of project, changes were observed in the families' furnishings. In aggregate, the results were similar for the families in terms of both standard of living or socioeconomic position. The consolidation of individual results confirms this trend and makes it possible to state that all the investments to improve housing conditions for the family also produced improvements in conditions for individuals, the community, and the country in general. In all the projects analyzed in terms of home conveniences, the families had changed substantially (Exhibit CG2), confirming what already has been noted at the individual level for the assessed projects. The occupational changes also collectively confirm the trend of the change from lower occupational levels to specialized commercial and professional positions (Exhibit CG3). The change in occupational levels was a characteristic of all the projects. The housing communities clearly have shifted toward commerce and the university professions.

Something similar, although on a smaller scale, was happening in the urban upgrading projects.

The family furnishings, presented in Exhibit CG2, shows how the majority of families have added furnishings to improve the comfort and well-being of their members. The percent change in basic conveniences has been more than 200%. It is interesting that computer ownership also increased by 71% in the communities.

Exhibit CG2. Change in the socioeconomic status of the family: Hato de Enmedio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Household Goods	Originally		%	Currently		%	% Change
	Yes	No		Yes	No		
Refrigerator	61	49	54	105	5	93	39
Kitchen	77	33	68	107	3	95	27
Oven	23	86	20	78	32	69	49
Washing machine	2	106	2	41	64	36	35
Television	88	22	78	108	1	96	18
Air conditioning	0	108	0	7	103	6	6
Motorcycle	2	107	2	3	106	3	1
Car	8	101	7	48	57	42	35
Computer	2	104	2	34	75	30	28

Exhibit CG3. Change in the occupational level of the family: Hato de En medio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Occupation	Originally		Currently		% Change
	# of Persons	%	# of Persons	%	
Worker	52	42.6	76	37.8	-4.8
Artisan	8	6.6	9	4.5	-2.1
Driver	3	2.5	9	4.5	2
Merchant	17	13.9	35	17.4	3.5
Teacher	10	8.2	15	7.5	-0.7
University professional	9	7.4	25	12.4	5
Policeman	1	0.8	3	1.5	0.7
Student	13	10.7	11	5.5	-5.2
Doctor	3	2.5	3	1.5	-1
Waiter	1	0.8	2	1	0.2
Housemaid	2	1.6	6	3	1.4
Others	3	2.5	7	3.5	1

One way to qualify the strengthening of the well–being of families is represented by the changes in occupational levels. Again, a change could be observed in the occupational levels for the members of the communities involved in all Housing and Urban Upgrading program projects. Exhibit CG3 clearly illustrates this change. Originally, the occupation of worker was the prevailing one for members of these families. In these surveys, 42.6% of participants had declared themselves as workers. Currently, however, only 37.8%

continue in this occupational category. The occupations of 5% have changed to that of university professionals and merchants.

Health is another important indicator of the well–being of the family. Both in the housing and in the urban upgrading projects, the families have stated that they are now in good or very good health. The heads of households, in the majority, stated that they have good or very good health. In total, 82% of the heads of household have reported being free of health problems, as well as the majority of the other family members.

Exhibit CG10. Family well-being, health situation: El Hato, El Satio, Oscar A. Flores, and Bella Vista neighborhoods

Person 1 or head of household	Very good		Good		Bad		Very bad	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
	62	54.87	37	32.74	8	7.08	0	0
Other members								
Person 2	68	60.18	25	22.12	5	4.42	0	0
Person 3	58	51.33	22	19.47	0	0	0	0
Person 4	45	39.82	18	15.93	1	0.88	0	0
Person 5	32	28.32	11	9.73	0	0	0	0
Person 6	20	17.7	8	7.08	0	0	0	0
Person 7	13	11.5	6	5.31	0	0	0	0
Person 8	9	7.96	3	2.65	0	0	0	0
Person 9	5	4.42	2	1.77	0	0	0	0
Person 10	3	2.65	1	0.88	0	0	0	0
Person 11	2	1.77	1	0.88	0	0	0	0
Person 12	2	1.77	1	0.88	0	0	0	0

5.4 Program Contribution to the Reduction of Poverty

To measure poverty reduction, it was decided to look at both the changes in the income of family members and the changes in the income of businesses. For the changes in the income of family members, it is important to analyze how, over a period of 20 years, families who had been on the lower levels of the salary scale at the beginning of the projects, have become an educated middle class, with development and cultural levels in their communities that are compatible with their personal development. Exhibit CG4 below shows that originally more than 88% of the families had incomes under $200 per month. Currently, their incomes have changed to the middle range at under $600. For income of family members (Exhibit CG4) it is also important to emphasize that the trend observed in the individual analyses is reflected at the consolidated level.

Exhibit CG4. Change in the level of income of family members: Hato de Enmedia, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Income per Month in US$	Originally		Currently		% Change
	# of Persons	%	# of Persons	%	
50 – 100	58	53.2	10	5.2	-48
101 – 200	41	37.6	61	31.8	-5.8
201 – 400	6	5.5	68	35.4	29.9
401 – 600	3	2.8	31	16.1	13.3
601 – 1000	1	0.9	17	8.9	8
1500 – 2000	0	0	5	2.6	2.6
2000+	0	0	0	0	0

The community as a whole has benefited from the progress made by individual families. When there is a more educated community with better income, community leaders can apply more pressure on the local authorities to achieve the construction of facilities and community services. All the analyzed communities show a better level of development than other communities that started at the same time as the communities involved in the project.

An important concept is the recuperation of investments by the implementing municipalities and INVA. The municipality of Tegucigalpa established a collection system through the Contributions for Improvements Office. These collections served to spread the cost of each project among the beneficiaries. The system worked fairly well until the next political campaign, when the collection was suspended because of promises made by the candidates. When the collection process resumed, the response was very limited and the initial momentum of the system was lost. The Contributions for Improvements Office is still operating in Tegucigalpa and is used for the recuperation of all types of investments in infrastructure projects. The recuperation of the project investments for upgrading in marginal communities, even though still continuing, has been reduced to a minimum.

Housing loan payments have been problematic, in spite of families having mortgages on the same. The El Sitio Project, with its technical and political difficulties, did not recuperate investments until the middle of the decade of the 90s. The disappearance of INVA and its replacement by FOSOVI created an environment of uncertainty among the home buyers and for some time loan payments stopped. FOSOVI contracted with a private enterprise the management of the portfolio and the process has been reorganized.

To consolidate the process of poverty reduction, it is necessary to know the impact of the projects on the income generated by the businesses in the communities. In this regard, a change was also observed that parallels the change of income for families. Originally the incomes of the 16 businesses that existed in the surveyed projects were concentrated at values lower than $200 per month. Currently, the number of businesses has increased to 46, with more than 50% of them with incomes between $200 and $2,000 per month (see Exhibits CG5 and CG6).

Exhibit CG5. Changes in the level of businesses: Hato de Enmedio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Number of Businesses in the Community	Originally			Currently			% Change
	# of Businesses	# Interviewed	%	# of Businesses	# Interviewed	%	
	16	113	14.16	46	113	40.71	26.55

Exhibit CG6. Change in the level of income for businesses: Hato de Enmedio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Income per Month in US$	Originally			Currently			% Change
	# of Businesses	# Interviewed	%	# of Businesses	# Interviewed	%	
50 – 100	12	113	10.62	7	113	6.19	-4.42
101 – 200	4	113	3.54	8	113	7.08	3.54
201 – 400	0	0	0.00	13	113	11.50	11.50
401 – 600	1	113	0.00	9	113	7.96	7.96
601 – 1000	0	0	0.00	5	113	4.42	4.42
1500 – 2000	0	0	0.00	1	113	0.88	0.88
2000+	0	0	0.00	1	113	0.88	0.88

5.5 Impact on the Services to the Community

The analysis of the program's benefits would not be complete if the program's impact on the community is not analyzed as an integral component of the general urbanization process. The provision of basic services and equipment is part of the progress that is inherently part of all progressive development.

5.5.1 The Basic Services of Drinking Water, Sewerage Systems, and Electricity

In the housing projects Hato de Enmedio and El Sitio, the basic drinking water, sanitary sewerage systems, and electric energy services were an integral part of the constructor contracts for the project. In the urban upgrading projects, the existence of the water service was a prerequisite for any other type of participation. However, more than 20 years later, it is interesting to analyze what has happened with these projects and assess their condition.

Potable water

These services were an integral part of the housing developments sponsored by the program. The analysis focuses on investigating if, after more than 20 years of operation of these infrastructures, their condition is adequate. In this investigation process did not find any noteworthy failures of the infrastructure. Once the initial problems of the El Sitio project were resolved, the beneficiaries agreed to rate the services as efficient, and they stated that they considered it an improvement in service. More than 90% of the families stated that the services were adequately rendered.

The service in the urban upgrading projects has also been rated as efficient, despite all the general limitations of the service. It is important to note that the drinking water service is rationed for all of Tegucigalpa because of the shortage of supply sources. Neighborhoods like El Sitio, Hato de Enmedio, Oscar A. Flores, and Bella Vista receive water twice weekly, according to a monthly calendar determined by SANAA.

In Oscar A. Flores neighborhood, the drinking water was part of the project. In the Bella Vista district, SANAA constructed the system with a donation. According to the persons interviewed, that system currently operates with efficiency.

The sanitary sewerage and storm drainage system

In the housing projects, the sanitary sewerage and storm water drainage systems were also an integral part of the construction projects. In Hato de Enmedio, the geographic features and the existence of trunk lines for servicing the Kennedy neighborhood greatly facilitated the construction of an efficient system. In the case of El Sitio, the final solution was a little slower, as it required a radical change in the system. Once the initial problems were solved, its residents and those of Hato de Enmedio considered the services to be efficient.

The sewerage system was the project's main objective for the urban development projects of Oscar A. Flores and Bella Vista neighborhoods. In Oscar A. Flores, the sewerage system works fairly well, and the interviewed persons have not reported any problems. This is not the case for the Bella Vista district, where the system has broken 11 times already. These system failures have occurred because the community is constructed on an area declared as having seismic problems. Fortunately, both the municipality and SANAA have assisted in correcting the past failures in a timely manner. However, it must be taken into consideration that this remains a major problem for the development of this community district. An additional problem is presented by the lack of storm water drainage systems. This problem has resulted in families connecting their rainwater runoff to the sanitary sewerage system, which greatly compromises the systems' capacities.

Electricity

This service is also part of the contracts for the housing projects. This service is rendered by the National Electricity Company (ENEE) and is very good, both in maintenance and in expansions. The communities in these projects are very satisfied with the service they presently receive. The main problem, even though not quantified in the study, is the cost of electrical service. This cost is primarily affected by the price of fuel, because most of the electricity generated in the country is supplied by equipment that uses fossil fuels. The price of fossil fuels is constantly increasing, thus elevating the cost of energy generation.

In the urban upgrading projects, the electrical services were installed by ENEE, with the condition that the community takes responsibility for the financing of 50% of installation costs. In general, the communities have appealed to foreign donors. It is important to note that once a community is organized, electricity is the first basic service they obtain, because if the residents do not get it legally, they connect the service illegally.

Garbage (solid waste) collection system

The solid waste collection service provided by the municipality has undergone important developments. During the 80s and at the beginning of the 90s, this service was fundamentally deficient. A donation from the Japanese government supplied the municipality with all the equipment necessary to provide this service, with the condition that the municipality commits to keeping the equipment in operating condition, which would be periodically supervised by the donor. Today, even when the service is not of the best quality, the residents of the communities are adequately served. More than 90% of the families are satisfied with the service (see Exhibit CG9).

Exhibit CG9. Basic infrastructure services: Hato de Enmedio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Public Service	Originally			Currently			Difference		
	Good	Normal	Bad	Good	Normal	Bad	Good	Normal	Bad
Drinking water	54	18	36	66	35	9	12	17	-27
Sewerage	77	10	21	91	16	3	14	6	-18
Electricity	73	17	18	94	14	1	21	-3	-17
Garbage collection	67	17	23	80	20	8	13	3	-16

5.5.2 Other Services to the Community

The existence of other public services in the surveyed communities, either provided by the government or by private enterprises, cannot be ignored. The majority of the families have the opinion that not only have the general conditions of the community improved (82.3%), but also the maintenance services of streets, transportation, public lighting, and security have substantially improved. On average more than 60% state that the services have improved, compared with approximately 10% that state they have gotten worse. Please see Exhibit CG8 for this analysis.

Exhibit CG8. Trends in community living conditions since 1984: Hato de Enmedio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Type of Service	Has Improved		Has Gotten Worse		Remains the Same	
	# of Persons	%	# of Persons	%	# of Persons	%
Community living conditions	93	82.3	11	9.7	6	5.3
Transportation	71	62.8	5	4.4	34	30.1
Public lighting	72	63.7	11	9.7	27	23.9
Security	24	21.2	35	31	50	44.2

Public streets

The housing projects of Hato de Enmedio and El Sitio stipulated in their contracts that construction of pedestrian paths and streets used for vehicle traffic be constructed with paving stones. However, the traffic rapidly damaged the streets constructed with paving stones, and they were replaced by pavement, especially the streets for vehicle traffic. In Hato de Enmedio, all of the main streets are paved and in good condition. In El Sitio, the

streets that serve as bus routes are in good condition, but the other streets heavily traversed by vehicles are not well maintained.

In the urban upgrading projects, the situation is mixed. The Oscar A. Flores community has paved almost the all of its vehicle streets and have placed stone pavement for the pedestrian paths. This has contributed extremely to the improved health and hygiene of the population. In the Bella Vista community, the streets are completely in disrepair. They are not paved, because all the donors are demanding to first resolve the sewerage system problem, which has not been possible to date. According to the president of the *Patronato*, there already are agreements with SANAA for the total replacement of the system and with one donor to finance the paving.

In general, 65.5% of the families think that the public street system has improved, compared with 14% that stated it has gotten worse (see Exhibit CG8).

Public lighting

In general, street lighting services are deficient. Public lighting systems have been installed, but the maintenance is lacking, especially because of the cost and constant stealing of the lighting fixtures. The communities and *Patronatos* provide maintenance once the service is installed, in the interest of their own security. The four communities that were surveyed considered the service to be improved (63%); however, they complained that it is a service for which ENEE collects payment, but provides insufficient maintenance (see Table CG8).

Transportation system

When the housing projects were planned, it was understood that INVA would negotiate to obtain the necessary public transportation. There never was an independent public transportation bus service for the Hato de Enmedio Project because it was added to the Kennedy neighborhood route, which has a fairly good service. Collective taxi (public) routes were established. These are a little more expensive, but of better quality service. In El Sitio, the integration of the community started without bus service and the residents had to walk more than two kilometers to catch public transportation, or wait for the interurban bus routes from other nearby municipalities. This alternative was more problematic because of minimal availability. Currently, the neighborhood has good transportation services with a dedicated bus line and public taxi service.

In the case of the urban upgrading projects, the communities were and continue to be served by bus routes that serve neighboring communities, providing an adequate service to the members of the communities.

Telephone service

In Honduras, it has always been difficult to get a telephone for families. The four projects obtained telephone service by taking advantage of the expansions introduced by the national telecommunications company (HONDUTEL). There are also communal telephones, even though the majority remains out of service because of vandalism of the

equipment and the reluctance of HONDUTEL to make replacements. In the survey conducted, originally 100 families out of 106 respondent families did not have telephone service, compared with 6 that did. Currently, 92 families have telephone service and 18 do not (see Exhibit CG7).

Exhibit CG7. Changes in the quality of life of the community: Hato de Enmedio, El Sitio, Bella Vista, and Oscar A. Flores neighborhoods

Community Services	Originally			Actually			Difference %
	Yes	No	% Yes	Yes	No	% Yes	
Elementary school	8	99	20.51	109	1	279.49	258.97
High school	6	101	15.38	95	15	243.59	228.21
Public hospital	5	102	12.82	95	14	243.59	230.77
Private hospital	3	104	7.69	67	43	171.79	164.10
Private clinic	4	102	10.26	83	27	212.82	202.56
Drugstore	4	102	10.26	63	47	161.54	151.28
Public/community telephone	6	100	15.38	92	18	235.90	220.51
Post office	5	96	12.82	21	85	53.85	41.03
Bus stop	35	72	89.74	93	17	238.46	148.72
Bank	5	102	12.82	56	54	143.59	130.77
Police station	6	100	15.38	90	20	230.77	215.38
Community hall	2	103	5.13	58	51	148.72	143.59
Parks	3	101	7.69	71	39	182.05	174.36

Security

One important question is that of security. Honduras, in general, has not been very effective in controlling crime. Criminal gangs are found everywhere and lower income communities are the most affected by the crime wave. However, it is important to remark that the better the quality of life of the community, the better control there is of this phenomenon. The housing projects have changed their socioeconomic classification; from a very low class, they have changed to lower-middle class, with good educational levels. This has influenced these communities to be left at the margins and to have a level of security relatively higher than in other areas of the city.

In the housing projects of Hato de Enmedio and El Sitio there are local police stations to increase the security of the population. Two police stations in Hato de Enmedio and one in El Sitio are in charge of security. In addition, there are 2 private security companies that provide services to the subscribers of these services.

5.5.3 Impact on Community Facilities

One of the most outstanding changes resulting from the Housing and Urban Upgrading Program from USAID is reflected in the community facilities serving the communities. Originally these communities lacked all types of facilities. Schools, hospitals, drugstores, telephones, post offices, police stations, among others, did not exist. Today, all these communities are provided with almost all of the services listed in Exhibit CG7. Below is a detailed listing of the existing facilities in the communities interviewed:

Facilities	Hato	Sitio	Oscar A. Flores	Bella Vista
Pre-elementary school	2	2	1	1
Elementary school	6	3	1	1
Public Hospital	1	0	1	0
Private Clinic	1	0	0	1
Drugstores	3	2	0	1
Public Telephone	10	3	2	1
Bus Stop	4	2	0	1
Banks	1	0	0	0
Cooperatives	2	2	0	0
Police Stations	2	1	0	0
Churches	6	3	3	4
Community Centres	1	1	1	0

Parks, sports fields, and businesses to facilitate purchases should be added to this list. There are neither public markets nor fire stations in the communities (This service is controlled at the municipal level. In Tegucigalpa there are only 3 fire stations for all the communities and neighborhoods. It is important to note the insufficiency of this service.). There are also no post offices. A post office had been established in Hato de Enmedio, but it was later closed. Another service managed at the national level is the civil registry, with offices in each municipality.

6. Lessons Learned

1. Without doubt, the Housing and Urban Upgrading Programs proved their effectiveness in regard to the initial objectives of reducing poverty and improving the living conditions of lower income families.
2. If the results shown in Honduras can be replicated in other countries, it would be worth trying to find alternative ways to continue with the benefits to lower income populations in developing countries.
3. It is interesting to talk with the beneficiaries of the programs and to feel their gratitude toward the government of the United States. Even after 20 years, the population is thankful for the participation of our country in their support.
4. Aspects that have not been so positive have originated from the managerial point of view of the programs. In a highly politicized country, it is necessary to create a mechanism for isolating the programs from decisions made by the politicians. The serious problems of the El Sitio Project and of some infrastructure projects were caused by the proximity of electoral processes or in search of particular political benefits.
5. The housing construction experiment using the “Turnkey” system did not produce the expected results in the country. This happened because those who designed and started the system’s operation failed in regard to details and protection mechanisms that should have been included in the contracts and could have prevented problems like those of El Sitio from occurring.

6. The Sites & Services programs with added home improvement loans produced very good results in Honduras. Most of the beneficiaries of these solutions expressed their belief that they had better results than those beneficiaries that had only acquired Basic Units.
7. The housing projects developed both by the public sector and the private sector proved to be very demanding for the institutions that implemented them. Only the municipalities could absorb the implemented projects within their structures. The projects needed not only needed an institutional strengthening component, but also the necessary safeguards to ensure that project implementation in this environment did not threaten the existing institutions in this sector.
8. Honduras seems to have forgotten that there is a National Housing Policy. The housing programs have been reduced to solving emergencies caused by natural disasters. The housing sector lacks financing for constructing housing solutions for lower income residents. This situation has stymied growth and promoted invasion of urban lots.

7. Evaluation of the Impact of the Housing Program in Honduras

Persons interviewed:

Ing Fausto Ramirez, Manager FOSOVI

Lic. Rosa Lidia Mendoza, President of Patronato Bella Vista District

Mr. Esteban Mejia, President Patronato El Sitio

Lic Florencia Valle, Manager of Administration and Finance, AMDC

Ing. Alexis Banegas, Deputy Director, Contribution for Improvements, AMDC

Mr. José Leonel Colindres, Contribution for Improvements, AMDC

Mr. Edwin Bulnes, President of Patronato Hato de Enmedio.

Lic. Ramón Ariel Sánchez, UNITEC

Lic. Erick Solis, UNITEC

Mr. Gerardo Rodríguez, UNITEC.

Mrs. Asunción de Ulloa, Treasurer of Patronato Oscar A. Flores neighborhood.

Mr. Oscar Jinesta, Resident of Oscar A. Flores neighborhood

Lic. Héctor Sarmiento, UNITEC

Lic. Tania López, UNITEC

Annex III – Housing and Urban Development Questionnaire, April 2005

This annex describes the process of questionnaire development for the retrospective, and includes a reproduction of the final questionnaire in Spanish.

Amy Mulcahy-Dunn of RTI was tasked with the development of a draft questionnaire that could capture the information needed to gauge the impact of the Regional Urban Development Office (RUDO) housing project on individual households as well as on the community. The questionnaire was developed centrally to ensure the comparability of information from Ecuador and Honduras. The original draft questionnaire was based almost exclusively on World Bank Living Standards and Measurement Survey (LSMS) instruments for Ecuador (1994, 1998) and Guyana (2000). In addition, community questions were drawn from the World Bank's LSMS community survey instruments for Ecuador (1998) and Guatemala (2000). The World Bank LSMS Office had granted RTI permission to use these questionnaires in the development of the survey instrument for the RUDO project.

Once a draft questionnaire was developed, it was circulated to the project team. The final questionnaire was obtained via a participatory process with extensive guidance/input from the Senior Housing Finance Specialist (Claude J.J. Bovet) and the two Field Survey Managers (Renán Larrea Calles and Sigifredo Ramirez). The content of the questionnaire was initially discussed with the team during a lengthy conference call. Oral comments were collected and used to modify the questionnaire. Several iterations of written comments from the project team resulted in the questionnaire's final version. The final questionnaire more closely reflected the state of development in the concerned communities in Ecuador and Honduras. The questionnaire was also shortened considerably so as to decrease respondent fatigue and, hopefully, increase the response rate.

The survey instrument was pilot tested in Honduras. Test results were incorporated into the final round of revisions. Once finalized centrally, the Field Survey Managers made small modifications to ensure that currency and other terminology were appropriate for the country in which it was being applied. Finally, a participant consent form was developed under the guidance of RTI's internal review board. This form explained the purpose of the survey and it stressed that participation was strictly voluntary. Interviewers were instructed to ask respondents for their consent on both the interview and the photograph taken of each respondent.

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ENCUESTA SOBRE VIVIENDA Y DESARROLLO URBANO

Abril 2005

Fecha de la entrevista
_____
Día, Mes, Año

Código del hogar_____

Código del entrevistador_____

Nombre del entrevistador_____

Nombre del encuestado_____

Numero de teléfono_____

Colonia_____

ENCUESTA SOBRE VIVIENDA Y DESARROLLO URBANO

Buenas Días. Mi nombre es .....y represento a RTI; una organización sin fines de lucro, encargada de realizar las visitas y evaluación.

Durante los primeros años de la década de los 80, el Gobierno de los Estados Unidos, a través de la Agencia de los Estados Unidos para el Desarrollo Internacional (USAID) financió un Programa de Vivienda y Desarrollo Urbano en diferentes países Latinoamericanos, con el fin de mejorar las condiciones habitacionales de las familias de menores ingresos de la población. Después de transcurridos mas de 20 años, USAID está interesada en evaluar si las inversiones realizadas lograron los objetivos que se habían propuesto. Para evaluar el impacto de estas inversiones, USAID ha seleccionado varios proyectos realizados en Ecuador y en Honduras, dos de los países mas representativos de la población objeto del Programa. En Ecuador se ha seleccionado el Proyecto habitacional Solanda y en Honduras se han seleccionado los proyectos habitacionales de Hato de En medio y de El Sitio y los proyectos de Mejoramiento urbano realizados en la colonia Bella Vista y Oscar A Flores. Dentro de estos proyectos se espera entrevistar a compradores y beneficiarios originales, con el fin de tratar de comparar los cambios ocurridos dentro del nivel familiar, de la comunidad y del país.

Para realizar esta evaluación y el análisis del impacto de estas inversiones, USAID ha seleccionado a RTI quien ha diseñado un formulario que le permita recolectar la información necesaria para los análisis. Esta información se espera obtener de las personas mas informadas de la comunidad de los proyectos, tales como jefes de familia y lideres comunales para que la información obtenida sea representativa de la situación real del proyecto y sus logros.

Por esta razón, vamos a visitar 100 familias que se asentaron originalmente en todo (Solanda, Bella Vista, o Oscar A Flores) . Para tal efecto es necesario que conversemos con el jefe de la familia, sea hombre, mujer o los dos. Participación en esta encuesta es voluntaria y exenta de riesgo.

1.CUANTO TIEMPO HA VIVIDO EN ESTA VIVIENDA (O AQUÍ)? AÑO _____ MESES_____(D)

2. COMPRÓ USTED ORIGINALMENTE SU CASA AL BANCO DE LA VIVIENDA?
SI_____ 1 [ ]
NO_____

3. CUANTO TIEMPO VIVE EN ESTA COMUNIDAD (Solanda, Bella Vista, o Oscar A Flores)?_____; (Si menos de 15 años, agradecer ; y preguntar si conoce algún vecino original o que vive más de 15 años en el barrio.

4. CONOCE ALGUN VECINO QUE VIVA AQUÍ DESDE 1984?

NOMBRE_____

DIRECCION:_____

Si ha vivido 15 años o más en esta comunidad (Solanda, Bella Vista, o Oscar A Flores), proceder a la encuesta en extenso. Para lo cual es necesario continuar diciendo:

"Si no le molesta vamos a hacerle algunas preguntas sobre varios temas relacionados con sus experiencias aquí, las condiciones de su vivienda, el barrio, los gastos adicionales que usted(es) ha(n) realizado durante estos años para lograr lo que actualmente disponen. Vamos también a hacerle algunas preguntas sobre, sus hijos, la educación, sus condiciones de vida (sus ingresos, su profesión, su salud, su impresas o tiendas) , los servicios que disponen, la infraestructura de la comunidad, el transporte, los problemas que tienen, etc."

La información recogida en esta encuesta es para efectos estadísticos y de evaluación del proyecto ..... desarrollado en 19.. conjuntamente por USAID y ..... Sus respuestas ayudarán en esta evaluación y servirán

para replicar o mejorar eventuales proyectos futuros. Su nombre no aparecerá ni será vinculado en forma alguna en el cuestionario materia de esta encuesta. Sus respuestas serán tratadas con estricta confidencialidad personal, siendo únicamente utilizadas en forma tabulada en el conjunto de las demás respuestas obtenidas de otras personas en esta encuesta.

Tiene usted preguntas sobre este estudio?

Desea usted participar en el estudio? La entrevista durará una hora aproximadamente.
SI_____1 [ ]
NO_____2

Adicionalmente a la entrevista, si no tuviera usted inconveniente, quisiéramos tomar fotografías de su vivienda junto con usted y su familia. Y si fuera posible también, obtener alguna fotografía familiar de usted y su familia al momento de instalarse en esta vivienda. Estas fotografías, sin su nombre, servirán para ilustrar el informe a USAID y una presentación final en Washington sobre los resultados obtenidos del financiamiento de este proyecto.
Es de notar que usted puede participar en esta entrevista sin ser fotografiado si así lo prefiriera.

Acepta usted ser fotografiado?
SI_____1 [ ]
NO_____2

NOMBRE_____

DIRECCION:_____

NOMBRE DE TELEFONO de SIGI AND RENAN PLEASE COMPLETE

SECCIÓN 1A. DATOS DE LA VIVIENDA

1. ES USTED EL PROPIETARIO ORIGINAL DE ESTA VIVIENDA?
   SI.....1 [ ]
   NO.....2

2. CUANDO COMPRÓ ESTA PROPIEDAD?

   AÑO_____

3. CUANTO PAGO POR ESTA PROPIEDAD?

   VALOR_____

4. COMO FINANCIO LA ADQUISICIÓN ORIGINAL?
   Préstamo Banca oficial.....1 [ ]

   Préstamo Banca privada.....2
   Préstamo del la Cooperativa.....3
   Préstamo del Patrono.....4
   Préstamo de los Parientes.....5
   Préstamo de una institución de gobierno 6

   (Cual_____)
   Recursos Propios.....7
   (→ Pregunta 8)
   Otro, Cual_____.....8

5. CUAL FUE EL MONTO DEL PRÉSTAMO?

   VALOR_____

6. CUANTO FUE EL PAGO INICIAL?

   VALOR_____

7. CUANTO ERA LA CUOTA MENSUAL?

   VALOR_____

8. SE HAN VENDIDO PROPIEDADES EN LA COMUNIDAD QUE SON SIMILARES A ESTA PROPIEDAD RECIENTEMENTE?
   SI.....1 [ ]
   NO.....2
   (Si "no"→ Secc. 1B)

9. POR CUANTO SE HAN VENDIDO?

   VALOR_____

   NO SABE_____

10. SUPONGA QUE USTED QUISIERA VENDER ESTA VIVIENDA. EN CUANTO PIENSA QUE LA GENTE ESTARÍA DISPUESTA A PAGAR?

    VALOR_____

11. ALGUNA VEZ HA OBTENIDO UN NUEVO PRÉSTAMO HIPOTECANDO SOBRE ESTA PROPIDAD?
    SI.....1 [ ]

    NO.....2

12. CUAL FUE LA FUENTE DEL PRÉSTAMO?
    BANCOS .....1 [ ]
    COOPERATIVAS 2
    PATRONOS 3
    AGENCIA GUBERNAMENTAL 4

    OTRAS INSTITUCIONES CUAL?_____

13. PARA QUE PROPÓSITO PIDIÓ ESTE PRÉSTAMO?
    NEGOCIO .....1 [ ]
    MEJORAMIENTO DE SU VIVIENDA.....2
    AMPLIACION.....3
    BODA O MATRIMONIO.....4
    CARRO.....5

    OTRO, CUAL?_____ 6

SECCIÓN 1B MODIFICACIÓN DE LA VIVIENDA

1. LA CASA EN QUE VIVE ES
   Solución Original ..... 1 [ ]

   (→ P.3)
   Modificada (no Original) 2

2. DEMOLIÓ LA CONSTRUCCIÓN ORIGINAL PARA CONSTRUIR UNA NUEVA?
   SI..... 1 [ ]

   NO..... 2

3. HA REALIZADO ALGÚN TRABAJO PARA REPARAR O MEJORAR ESTA VIVIENDA DESDE LA CONSTRUCCIÓN INICIAL?
   SI..... 1 [ ]

   NO..... 2
   (Si "no"→ p.8)

4. QUE MEJORAMIENTOS HA REALIZADO?
   AMPLIACIÓN DE SU AREA HABITACIONAL..... 1 [ ]
   AMPLIACIÓN PARA NEGOCIO..... 2
   AMPLIACIÓN PARA NUEVO DEPARTAMENTO 3
   MEJORAMIENTO DE LA ESTRUCTURA..... 4
   CONSTRUCCIÓN O REPARACIÓN DE ALCANTARILLAS; DESAGUES, SERVICIO HIGIÉNICO
   Y LETRINAS 5
   OTRO TRABAJO PARA MEJORAR LA VIVIENDA, CUAL?

   _____ 6

5. POR QUE DEMOLIÓ O MODIFICÓ LA CONSTRUCCIÓN ORIGINAL
   CRECIMIENTO DE LA FAMILIA..... 1 [ ]

   ARRENDAR A OTRAS FAMILIAS 2
   COLOCAR NEGOCIO PROPIO..... 3
   ARRENDAR PARA NEGOCIO..... 4
   OTRO PROPóSITO, CUAL?

   _____ 5

6. CUANDO FUERON REALIAZADAS LAS MEJORAS?

   ..... [ ]

   Durante el primer año de adquirida?..... 1
   Después de los dos primeros años?..... 2
   Después de cuatro años?..... 3
   Hace 10 años? 4
   Hace 5 años 5
   Durante los dos últimos años..... 6
   Cambios progresivos..... 7

7. COMO FINANCIO LAS MEJORAS REALIZADAS?
   Préstamo Banca oficial..... 1 [ ]

   Préstamo Banca privada 2
   Préstamo de la Cooperativa..... 3
   Préstamo de l Patrono..... 4
   Préstamo de los Parientes 5
   Préstamo de una institución de gobierno 6

   (Cual_____)
   Recursos Propios..... 7
   (→ P.8)
   Otro, Cual_____..... 8

8. CUANTAS FAMILIAS RESIDEN EN ESTA VIVIENDA?

   a. ACTUALMENTE [_____] Número

   b. ORIGINALMENTE [_____] Número

9.

CUANTOS....	ACTUALMENTE		ORIGINALMENTE EN 19___?	
	numero	Compartido con otros hogares? Si=1 No=2	numero	Compartido con otros hogares? Si=1 No=2
METROS CUADRADOS TOTALES	9ª.	9b.	9c.	9d.
PISOS	9e.	9f.	9g.	9h.
APARTAMENTOS	9i.	9j.	9k.	9l.
BANOS	9m.	9n.	9º.	9p.
CUARTOS (ambientes/habitaciones?	9q.	9r.	9s.	9t.
DORMITORIOS	9u.	9v.	9v.	9w.
COCINA	9x.	9y.	9z.	9aa.
SALA/ COMEDOR	9ab.	9ac.	9ad.	9ae.
TIENDA/ EMPRESA/OFICINA	9af.	9ag.	9ah.	9ai.
GARAGES	9aj.	9ak.	9al.	9am.

SECCIÓN 1C. RENTA

1. ALQUILA HABITACIONES A ALGUIEN EN ESTA VIVIENDA?
   SI.....1
   NO.....2
   (Si "no"→ Secc. 1D)

   a. ACTUALMENTE [_____]

   b. ORIGINALMENTE [_____]

2. CUANTOS CUARTOS ALQUILA EN TOTAL?

   a. ACTUALMENTE [_____] Número

   b. ORIGINALMENTE [_____] Número

3. PODRIA INDICARNOS CUANTO RECIBE POR ALQUILERES?
   VALOR_____
   FRECUENCIA_____
   NUMERO DE CUARTOS_____

SECCIÓN 1D. SERVICIOS DEL HOGAR

1. TIENE ESTE HOGAR SERVICIO DE AGUA POTABLE POR TUBERIA?

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

SI..... 1
NO.....2
(si "no" → Pregunta 4)

2. EL SUMINISTRO ES ADECUADO?

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

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

3. USTED DIRIA QUE EL SERVICIO DE AGUA POR TUBERIA ES GENERALMENTE:

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

BUENO 1
NORMAL.....2
MALO 3

4. CON QUE TIPO DE SERVICIO HIGIÉNICO CUENTA EL HOGAR?

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

EXCUSADO Y ALCANTARILLADO 1
EXCUSADO Y POZO SÉPTICO 2
EXCUSADO Y POZO CIEGO 3

5. USTED DIRIA QUE EL SERVICIO HIGIÉNICO ES GENERALMENTE:

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

BUENO 1
NORMAL.....2
MALO 3

6. CON QUE TIPO DE ALUMBRADO CUENTA PRINCIPALMENTE ESTE HOGAR?

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

EMPRESA ELÉCTRICA PUBLICA.....1
PLANTA ELÉCTRICA PRIVADA.....2
NINGUNO 3
(si "2" o "3" →Pregunta 8)

7. EL SERVICIO DE EMPRESA PUBLICA ELÉCTRICA ES:

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

BUENO 1
REGULAR.....2
MALO 3

8. COMO ELIMINA EN ES ESTE HOGAR LA MAYOR PARTE DE LA BASURA?:

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

CONTRATAN EL SERVICIO.....1
SERVICIO MUNICIPAL.....2
LA BOTAN 3
LA QUEMAN O LA ENTIERRAN.....4
(si la respuesta no es "2" →P.10)

9. EL SERVICIO MUNICIPAL DE BASURA ES:

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

BUENO 1
REGULAR.....2
MALO 3

10. TIENE ESTE HOGAR SERVICIO TELEFÓNICO?:

a. ACTUALMENTE [ ]
b. ORIGINALMENTE [ ]

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

SECCIÓN 1E. TIPOS DE BIENES DEL HOGAR

TIPO DE BIEN	POSEE? SI.....1 NO.....2 ACTUALMENTE	ORIGINALMENTE	CUANTOS? ACTUALMENTE (NUMERO)	ORIGINALMENTE (NUMERO)
REFRIGERADOR	1a.	1b.	1c.	1d.
MAQUINA DE COCER	2a.	2b.	2c.	2d.
COCINA	3a.	3b.	3c.	3d.
HORNO	4a.	4b.	4c.	4d.
TOSTADORA	5a.	5b.	5c.	5d.
LAVADORA	6a.	6b.	6c.	6d.
LICUADORA	7a.	7b.	7c.	7d.
PLANCHA	8a.	8b.	8c.	8d.
ASPIRADORA	9a.	9b.	9c.	9d.
TV	10a.	10b.	10c.	10d.
VIDEO CASETERA	11a.	11b.	11c.	11d.
LÍNEA TELEFÓNICA	12a.	12b.	12c.	12d.
VENTILADOR	13a.	13b.	13c.	13d.
AIRE ACONDICIONADO	14a.	14b.	14c.	14d.
BICICLETA	15a.	15b.	15c.	15d.
MOTOCICLETA	16a.	16b.	16c.	16d.
CARRO	17a.	17b.	17c.	17d.
COMPUTADORA	18a.	18b.	18c.	18d.

SECCIÓN 2. El HOGAR

1. Cuantas personas hay en este hogar?

	NUMERO DE PERSONAS ACTUALMENTE	NUMERO DE PERSONAS ORIGINALMENTE
hijos/hijas (0-5 años)		
hijos/hijas (6-10 años)		
hijos/hijas (11-17 años)		
adultos (18-25 años)		
adultos (26-40 años)		
adultos (41-65 años)		
Adultos (66+)		

SECCIÓN 2A. REGISTRO DE LOS MIEMBROS DEL HOGAR

1. MIEMBROS DEL HOGAR Registre el nombre de todas las personas que comen y duermen habitualmente en este hogar. Quien fue el jefe de este hogar originalmente en (198__)? Aun si el/ella no es miembro actual del hogar registre su nombre NOMBRE	I D C O D E	2 (AÑOS)	3 SEXO	4 CUÁL ES EL PARENTESCO DE…….CON EL JEFE ACTUAL DE ESTE HOGAR? JEFE ACTUAL.....1 JEFE ORIGINAL.....2 JEFE ACTUAL Y ORIGINAL .....3 ESPOSO/A CONVIVENTE.....4 HIJO/HIJA.....5 YERNO-NUERA .....6 NIETO/NIETA.....7 PADRES/SUEGROS .....8 HERMANO/A CUNADO/A .....9 ABUELO/A.....10 PRIMO(A).....11 OTROS PARIENTES.....12 PENSIONADAS.....13 NO RELACIONADA.....14 EMPLEADOS DOMÉSTICOS Y SUS FAMILIARES 15	5 CUÁL ES EL NIVEL MAS ALTO DE EDUCACIÓN QUE CURSA O CURSO? NINGUNA.....1 EDUCACIÓN BÁSICA DE ADULTOS 2 PRE-PRIMARIA.....3 PRIMARIA .....4 SECUNDARIA .....5 PROFESIONAL UNIVERSITARIO.....6 PROFESIONAL NO UNIVERSITARIO7 POSTGRADO. 8	6 (para los miembros del hogar de 3-25 anos) ESTA MATRICULADO ACTUALMENTE EN . CUARDERIA, MATERNAL O PARVULARIO ..... 1 PRE-KINDER..... 2 KINDER O JARDIN DE INFANTES ... 3 EDUCACIÓN BÁSICA DE ADULTOS 4 PRE-PRIMARIA..... 5 PRIMARIA..... 6 SECUNDARIA ..... 7 PROFESIONAL UNIVERSITARIO.... 8 PROFESIONAL NO UNIVERSITARIO9 POSTGRADO. ..... 10 NINGUNA 11
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					

SECCIÓN 2B. ACTIVIDAD ECONÓMICA DE LOS MIEMBROS DEL HOGAR

Para los miembros que tienen mas de 14 anos

ID CODE	1 ESCRIBA EL NOMBRE DEL MIEMBRO DEL HOGAR.	2 Tiene trabajo usted? Si..... 1 --➢ P. 4 NO..... 2	3 Porque no trabaja? Porque se redujo la jornada trabajo por causa de baja producción o ventas..... 1 Por falta de crédito o financiamiento ..... 2 Motivos familiares o personales..... 3 Enfermedad o accidentes . 4 No hay mas trabajo..... 5 Jubilado/a ..... 6 Otro, cuál? (Cualquier respuesta --➢ Secc. 2C)	4 Cual es la ocupación, que tiene usted en este trabajo? Obrero .....1 Artesano .....2 Chofer .....3 Comerciante.....4 (--➢ P. 10) Profesor .....5 Profesional Universitario ...6 Estudiante.....7 Policía .....8 Medico .....9 Camarero.....10 Empleado Domestico.....11 Otro Cual?.....12	5 EN LA OCUPACIÓN,..... trabaja como? Obrero/empleado de Gobierno.....1 Obrero/empleado de Privado .....2 Patrono/ Socio Activo .....3 Cuenta Propia .....4 (--➢ P. 10) Trabajador del Hogar sin pago .....5 Trabajador no del Hogar sin pago .....6 Empleado Domestico 7

		a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

SECCIÓN 2B. ACTIVIDAD ECONÓMICA DE LOS MIEMBROS DEL HOGAR (cont.)

PERSON	ID CODE	6 En esta OCUPACIÓN, donde trabaja Usted? En el hogar propio? .....1 En la urbanización? .....2 En la ciudad? .....3 Fuera de la ciudad 4		7 Aproximadamente cuanto gana al mes? DOLARES POR MES 50-100.....1 101-200.....2 210-400.....3 401-600.....4 601-1000.....5 1500-2000.....6 2000-- más 7		8 Cuantos horas trabaja generalmente por semana en cualquier trabajo? Menos de 40 horas..... 1 40 Horas o mas ..... 2 --➢ Pregunta 10		9 Quiere trabajar mas horas? Si .....1 No.....2	
		a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								

SECCIÓN 2B. ACTIVIDAD ECONÓMICA DE LOS MIEMBROS DEL HOGAR (cont.)

PERSON	ID CODE	10 Tiene usted negocio o empresa? Si .....1 No .....2 --➢ SECCIÓN 2C		11 A que se dedica el negocio o empresa que tiene? Que fabrica, que produce, que vende, que servicios presta?		12 El negocio o empresa funciona: En el hogar propio? .....1 En el urbanización? .....2 En la ciudad? 3		13 Aproximadamente cuanto son los ingresos mensuales de su negocio o empresa ? DOLARES POR MES 50-100.....1 101-200.....2 210-400.....3 401-600.....4 601-1000.....5 1500-2000.....6 2000-- más 7	
		a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?	a. Actualmente?	b. Originalmente?
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								

SECCIÓN 2C. SALUD DE LOS MIEMBROS DEL HOGAR

PERSON	ID CODE	1 La salud de usted es generalmente.. Muy buena .....1 buena.....2 mala.....3 muy mala 4	2 Durante el Último mes se sintió enfermo tuvo un accidente? si..... 1 NO ..... 2 --➢ secc 3	3 Cual fue la enfermedad que sintió? Si mas de una enfermedad, Marque la mas seria. GRIPE ..... 1 ESTOMAGO/TRASTORNO GÁSTRICO..... 2 DIARREA..... 3 HÍGADO ..... 4 RIÑÓN..... 5 DOLOR DE CABEZA..... 6 CORAZÓN..... 7 PULMÓN ..... 8 FRACTURA(S) ..... 9 PIEL..... 10 OTRO, CUAL?..... 11	4 Por cuanto tiempo estuvo enfermo ? DÍAS	5 Cuando estuvo enfermo fue a un... medico .....1 enfermera..…… 2 curandero.....3 farmacéutico .....4 dentista .....5 paramédico .....6 Otro, cual 7	6 Donde recibió atención? Hospital ..... 1 Clínica publica…… 2 Clínica privada..... 3 En su casa..... 4 Otro, cual 5	7 Cuanto tiempo necesitó para llegar a este lugar? Menos de ½ hora .....1 Mas de ½ hora .....2 1-4 horas 3
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							

SECCIÓN 3. LA COMUNIDAD

1. DE 1984 EN ADELANTE, USTED DIRIA QUE LAS CONDICIONES DE VIDA DE LA COMUNIDAD:
   HAN MEJORADO ..... 1 [ ]
   HAN EMPEORADO 2
   SIGUEN IGUAL 3

2. CUALES SON LAS 2 PRINCIPALES RAZONES POR LAS CUALES LAS CONDICIONES DE VIDA DE LA COMUNIDAD HAN CAMBIADO :

   a_____

   _____

   b_____

VIAS

3. QUE PROPORCION DE LAS CALLES O CAMINOS ESTA PAIVIMENTADA?
   LA TOTALIDAD ..... 1 [ ]
   MAS DE LA MITAD 2
   LA MITAD 3
   MENOS DE LA MITAD 4
   NINGUNA 5

   (SI "5" → P. 5)

4. USTEDE DIRIA QUE LAS CONDICIONES DE LAS CALLES O CAMINOS SON GENERALMENTE:
   BUENAS ..... 1 [ ]
   NORMALES 2
   MALAS 3

5. DE 1984 EN ADELANTE, ESTAS CALLES O CAMINOS:
   HAN MEJORADO ..... 1 [ ]
   HAN EMPEORADO 2
   IGUALES 3

TRANSPORTE

6. QUE TIPO DE VEHICULOS PRESTAN EL SERVICIO DE TRANSPORTE PUBLICO?
   TAXI ..... 1 [ ]
   BUSES PUBLICOS 2
   BUSES PRIVADOS 3
   CARRO/CAMIONETILLA/ CAMIONETA/BUS 4
   OTRO, CUAL 5

   _____

   NINGUNO 6
   (SI "NINGUNA" → P. 9)

7. CON QUE FRECUENCIA DISPONE LA COMUNIDAD DE ESTE SERVICIO:
   TODOS LOS DIAS ..... 1 [ ]
   ALGUNOS DIAS A LA SEMANA 2
   OTRO, CUAL 4

   _____

8. USTED DIRIA QUE EL SERVICIO DE TRANSPORTE PUBLICO ES GENERALMENTE:
   BUENO ..... 1 [ ]
   NORMAL 2
   MALO 3

9. DE 1984 EN ADELANTE, USTED DIRIA QUE ELSERVICIO DE TRANSPORTE PUBLICO :
   HA MEJORADO ..... 1 [ ]
   HA EMPEORADO 2
   SIGUE IGUAL 3

ALUMBRADO PUBLICO

10. QUE PROPORCION DE LA COMUNIDAD TIENE SERVICIO DE ALUMBRADO PUBLICO EN LA CALLE?
    LA TOTALIDAD ..... 1 [ ]
    MAS DE LA MITAD 2

LA MITAD.....3
MENOS DE LA MITAD.....4
NINGUNA.....5
(SI "NINGUNA" → P. 12)

11. USTED DIRIA QUE EL SERVICIO DE ALUMBRADO PUBLICO ES GENERALMENTE:
BUENO.....1 [ ]
NORMAL.....2
MALO.....3

12. DE 1984 EN ADELANTE, USTED DIRIA QUE EL SERVICIO DE ALUMBRADO PUBLICO:
HA MEJORADO.....1 [ ]
HA EMPEORADO.....2
SIGUE IGUAL.....3

VIGILANCIA

13. ESTA COMUNIDAD TIENE UN SERVICIO DE VIGILANCIA?
POLICIAL.....1 [ ]
PRIVADA.....2
NINGUNA.....3
OTRO, CUAL?.....4

_____
(SI "NINGUNA" → P. 15)

14. QUE PROPORCION DE ESTA COMUNIDAD BENEFICIA DEL SERVICIO DE VIGILANCIA?
LA TOTALIDAD.....1 [ ]
MAS DE LA MITAD.....2
LA MITAD.....3
MENOS DE LA MITAD.....4
NINGUNA.....5

15. EXISTE ORGANIZACIÓN COMUNITARIA DE SEGURIDAD Y VIGILANCIA
SI.....1 [ ]
NO.....2
(SI "NO"→ P. 17)

16. USTED DIRIA QUE EL SERVICIO DE VIGILANCIA ES GENERALMENTE:
BUENO.....1 [ ]
NORMAL.....2
MALO.....3

17. DE 1984 EN ADELANTE, USTED DIRIA QUE EL SERVICIO DE LA VIGILANCIA:
HA MEJORADO.....1 [ ]
HA EMPEORADO.....2
SIGUE IGUAL.....3

18. QUE PROPORCION DE LAS VIVIENDAS DE ESTA COMUNIDAD HAN SIDO ROBADAS EN EL ULTIMO ANO?
LA TOTALIDAD.....1 [ ]
MAS DE LA MITAD.....2
LA MITAD.....3
MENOS DE LA MITAD.....4
NINGUNA.....5
NO SABE.....6
(SI "NINGUNA" → P. 20)

19. QUE PROPORCION DE ESTAS ROBOS FUERON INVESTIGADOS POR LA POLICIA?
TODOS.....1 [ ]
MAS DE LA MITAD.....2
LA MITAD.....3
MENOS DE LA MITAD.....4
NINGUNO.....5
NO SABE.....6

20. CUANTOS ASESINATOS SE COMETIERON ELN LA COMUNIDAD EN EL ULTIMO ANO?

a. NUMERO_____

	21. ACTUALMENTE, en Esta Comunidad hay…….. SI =1 NO=2 (Si 'SI'→ p.23	22. ACTUALMENTE, A que distancia de la comunidad queda (…..) mas cercano/a? <u>Unidades:</u> Metros.....1 Kilómetros.....2		23. ORIGINALMENTE En 19____(año) en esta comunidad había……. SI =1 NO=2 (Si 'SI'→ p.25	24. ORIGINALMENTE, En 19____, A que distancia de la comunidad quedó (…..) mas cercano/a? <u>Unidades:</u> Metros.....1 Kilómetros.....2		25. Para ir a (…..) que medios de transporte existen en esta comunidad: 1. A pie 2. bicicleta 3. carro 4. camioneta 5. motocicleta 6. camión 7. ambulancia 8. bus 9. taxi 10. otro, cual?
		Distancia	Unidades		Distancia	Unidades	
ESCUELA PRE-ESCOLAR/ PRE-PRIMARIA?							
PRIMARIA?							
SECUNDARIA?							
HOSPITAL PUBLICO?							
HOSPITAL PRIVADO?							
CLINICA PRIVADA?							
CURANDERO?							
PARTERA TRADICIONAL?							
FARMACIA?							
TELEFONO PUBLICO/COMUNAL?							
CORREO?							
PARADA DE BUS?							
BANCO?							
COOPERATIVA?							
PUESTO DE POLICIA?							
REGISTRO CIVIL?							
MERCADO?							

	21. ACTUALMENTE, en Esta Comunidad hay…….. SI =1 NO=2 (Si 'SI'→ p.23	22. ACTUALMENTE, A que distancia de la comunidad queda (…..) mas cercano/a? <u>Unidades:</u> Metros.....1 Kilómetros.....2		23. ORIGINALMENTE En 19____(año) en esta comunidad había……. SI =1 NO=2 (Si 'SI'→ p.25	24. ORIGINALMENTE, En 19____, A que distancia de la comunidad quedó (…..) mas cercano/a? <u>Unidades:</u> Metros.....1 Kilómetros.....2		25. Para ir a (…..) que medios de transporte existen en esta comunidad: 1. A pie 2. bicicleta 3. carro 4. camioneta 5. motocicleta 6. camión 7. ambulancia 8. bus 9. taxi 10. otro, cual?
IGLESIA?							
SALON COMUNAL?							
PARQUES DE RECREACION?							