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**PROJECT PERFORMANCE ASSESSMENT REPORT**

**EL SALVADOR**

**EARTHQUAKE RECONSTRUCTION PROJECT  
(LOAN 2873-ES)**

**March 30, 2004**

*Sector and Thematic Evaluations Group  
Operations Evaluation Department*

## Currency Equivalents (annual averages)

Currency Unit = Salvadoran Colon (SVC)

January 1987 US\$1.00	5.000	January 1995 US\$1.00	8.755
January 1988 US\$1.00	6.80	January 1996 US\$1.00	8.755
August 1992 US\$1.00	7.26	January 1997 US\$1.00	8.755
January 1993 US\$1.00	8.755*	January 1998 US\$1.00	8.755
January 1994 US\$1.00	8.755	January 1999 US\$1.00	8.755
January 2001 US\$1.00	8.750**		

\*fixed rate since 1993, \*\*fixed rate since January 2001.

Note: since January 2001, the US dollar has also become legal tender.

Source: CIA Factbook <http://www.odci.gov/cia/publications/factbook/geos/es.html> and the ICR GOES report (for 1987, 1988, and 1992).

## Abbreviations and Acronyms

ANDA	<i>Administración Nacional de Acueductos y Alcantarillados</i> (National Water and Sewerage Authority)
ANTEL	<i>Administración Nacional de Telecomunicaciones</i> (National Telecommunications Administration)
BAC	<i>Banco Agrícola Comercial</i> (Agricultural and Commercial Bank)
CEPRENAC	Center for Prevention of Disasters in Central America
CHF	Cooperative Housing Foundation
CNE	National Emergency Committee
CREM	<i>Comite de Reconstrucción de Emergencia del Area Metropolitana</i> (Committee for Emergency Reconstruction of the Metropolitan Area)
ECLA	United Nations Commission for Latin America
FIGAPE	<i>Fondo de Financiamiento y Garantía para la Pequeña Empresa</i> (Fund for the Financing and Guaranty of Small-Scale Enterprises)
FNV	<i>Financiera Nacional de la Vivienda</i> (National Housing Finance Agency)
FSV	Social Housing Fund
FUNDASAL	<i>Fundación Salvadoreña de Desarrollo y Vivienda Minima</i> (Salvadoran Foundation for Development and Low-Cost Housing)
GOES	Government of El Salvador
ICR	Implementation Completion Report
IDB	Inter-American Development Bank
MIPLAN	Ministry of Planning
MOF	Ministry of Finance
MOP	Memorandum of the President
NGO	Nongovernmental organization
OED	Operations Evaluation Department
PIU	Project Implementing Unit
PRONAVIPO	<i>Programa Nacional de Vivienda Popular</i> (National Program for Low-Cost Housing)
RU	Reconstruction Unit
SNET	National Service for Territorial Studies
UNDP	United Nations Development Program
USAID	United States Agency for International Development

## Fiscal Year

Government: January 1 – December 31

Director-General, Operations Evaluation	:	Mr. Gregory K. Ingram
Director, Operations Evaluation Department	:	Mr. Ajay Chhibber
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**OED Mission: Enhancing development effectiveness through excellence and independence in evaluation.**

### **About this Report**

The Operations Evaluation Department assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, OED annually assesses about 25 percent of the Bank's lending operations. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons. The projects, topics, and analytical approaches selected for assessment support larger evaluation studies.

A Project Performance Assessment Report (PPAR) is based on a review of the Implementation Completion Report (a self-evaluation by the responsible Bank department) and fieldwork conducted by OED. To prepare PPARs, OED staff examine project files and other documents, interview operational staff, and in most cases visit the borrowing country for onsite discussions with project staff and beneficiaries. The PPAR thereby seeks to validate and augment the information provided in the ICR, as well as examine issues of special interest to broader OED studies.

Each PPAR is subject to a peer review process and OED management approval. Once cleared internally, the PPAR is reviewed by the responsible Bank department and amended as necessary. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

### **About the OED Rating System**

The time-tested evaluation methods used by OED are suited to the broad range of the World Bank's work. The methods offer both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. OED evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (more information is available on the OED website: <http://worldbank.org/oed/eta-mainpage.html>).

**Relevance of Objectives:** The extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). *Possible ratings:* High, Substantial, Modest, Negligible.

**Efficacy:** The extent to which the project's objectives were achieved, or expected to be achieved, taking into account their relative importance. *Possible ratings:* High, Substantial, Modest, Negligible.

**Efficiency:** The extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. *Possible ratings:* High, Substantial, Modest, Negligible. This rating is not generally applied to adjustment operations.

**Sustainability:** The resilience to risk of net benefits flows over time. *Possible ratings:* Highly Likely, Likely, Unlikely, Highly Unlikely, Not Evaluable.

**Institutional Development Impact:** The extent to which a project improves the ability of a country or region to make more efficient, equitable and sustainable use of its human, financial, and natural resources through: (a) better definition, stability, transparency, enforceability, and predictability of institutional arrangements and/or (b) better alignment of the mission and capacity of an organization with its mandate, which derives from these institutional arrangements. Institutional Development Impact includes both intended and unintended effects of a project. *Possible ratings:* High, Substantial, Modest, Negligible.

**Outcome:** The extent to which the project's major relevant objectives were achieved, or are expected to be achieved, efficiently. *Possible ratings:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

**Bank Performance:** The extent to which services provided by the Bank ensured quality at entry and supported implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of the project). *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.

**Borrower Performance:** The extent to which the borrower assumed ownership and responsibility to ensure quality of preparation and implementation, and complied with covenants and agreements, towards the achievement of development objectives and sustainability. *Possible ratings:* Highly Satisfactory, Satisfactory, Unsatisfactory, Highly Unsatisfactory.



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<p>This report was prepared by Ronald Parker and Kristin Little who assessed the project in September 2003. The report was edited by William Hurlbut and Helen Phillip provided administrative support.</p>
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## Principal Ratings

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Satisfactory	Moderately Unsatisfactory	Moderately Satisfactory
Sustainability	Likely	Likely	Likely
Institutional Development Impact	Partial	Modest	Substantial
Bank Performance	Satisfactory	Satisfactory	Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Satisfactory

\* The Implementation Completion Report (ICR) is a self-evaluation by the responsible operational division of the Bank. The ICR Review is an intermediate OED product that seeks to independently verify the findings of the ICR.

## Key Staff Responsible

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
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## **Preface**

This is a Project Performance Assessment Report (PPAR) on the El Salvador Earthquake Reconstruction Project (Loan 2873-ES), for which the World Bank approved a loan in an amount of \$65 million on October 16, 1987. The loan was made effective on June 17, 1988, and it was closed on June 30, 1996. The original closing date was December 31, 1993. A Japanese Grant of about \$13.5 million supported the housing component and financed technical support and studies undertaken within the project.

This report is unusual in that it looks at a project begun 16 years ago and closed now more than 7 years. This year OED is looking at several older projects to assess their contribution to borrowers' long-term development and to determine which factors were associated with (observed rather than predicted) sustainability and institutional development impact. The report is based upon reviews of the Implementation Completion Report (ICR), the Memorandum and Recommendation of the President (MOP), legal documents, project files, and discussions with Bank staff involved with the project. OED fielded a two-person mission to El Salvador in September 2003 to review the project results and to conduct a survey with the beneficiaries of the emergency housing component. The results of this survey will inform a forthcoming OED evaluation of Bank assistance in the context of natural disasters. The performance assessment also will be of general use to OED's ongoing work on social development and natural disasters.

The mission visited central government departments and project agencies in San Salvador but spent most of its time in the field, visiting project sites, and speaking with project officials and stakeholders. The mission appreciates the courtesies and attention given by interlocutors and is particularly appreciative of the efforts made by Francisco Rivas and Alberto Morales of the Directorate General For External Cooperation, and Julia del Rosario Lainez Pineda of the Ministry of Public Works. It also gratefully acknowledges the logistical support provided by the Cooperative Housing Foundation (CHF).

Following standard procedures, copies of the draft PPAR was sent to the relevant government officials and agencies concerned for their review and comments. The comments are attached as Annex C.



## Summary

A major earthquake hit San Salvador, the capital of El Salvador, on October 10, 1986, at 11:50 in the morning. The 7.6 magnitude quake left 1,500 persons dead, 10,000 injured, and 300,000 homeless, and damage to physical assets totaled \$1,030 million; equivalent to one-fourth of the nation's 1986 GDP. In response to the disaster, the World Bank financed the El Salvador Earthquake Reconstruction Project for which it approved a loan in an amount of \$65 million on October 16, 1987.

The objectives of the project were to help: (i) rehabilitate and reconstruct the San Salvador metropolitan area through the provision of low-cost housing, public office and school buildings, and essential public services; (ii) support the expansion of the capital city toward the north; (iii) rehabilitate the micro-enterprise sector to restore its production and income generating capacity; and (iv) strengthen the government's capacity to plan and manage the reconstruction efforts and enhance its preparedness to deal with national emergencies in the future.

This assessment was carried out as part of OED's evaluation of a selected number of older projects to assess their contribution to borrowers' long-term development. The project being assessed was begun 16 years ago and the loan has been closed now more than 7 years. On balance, the result of the exercise was most valuable in terms of lesson learning. In the first place, an earlier visit to project sites might have seen a different world. Project-built buildings would not have had to survive two subsequent earthquakes, and the long-term results of insufficient attention to social aspects within the low-income housing efforts would not have been as apparent. Secondly, the passage of time allowed OED to examine sustainability and institutional development impact in greater depth than would have been possible at a lesser remove. The results of an OED survey of over nine hundred project beneficiaries informed this assessment.

The project contributed effectively to the rehabilitation of the San Salvador metropolitan area, performing best on the reconstruction of public offices and restoration of essential public services. Low-cost housing was provided to the low-income target group: 6,344 new urban units were provided to carefully screened beneficiaries.

The Government encouraged earthquake victims to relocate to Apopa, a northern suburb of San Salvador. Many of the project-financed activities—a telephone exchange, the paving of the roads, the provision of wells for potable water, as well as the construction of much of the low-income housing— took place in and around Apopa. The extent of the expansion of the capital city toward the north exceeded expectations.

The micro-enterprise credits suffered from poor targeting and record-keeping, and it was not possible to evaluate the extent to which project activities contributed to the restoration of sector capacity. Overall 1,436 small loans were approved (compared to 1,500 originally estimated). The amount made available was approximately \$4.5 million (against an original objective of \$9 million).

The project strengthened the Government's capacity to plan and manage reconstruction efforts and enhanced its preparedness to deal with national emergencies in the future. Evidence of the increased capacity consists of the new regional and national institutions that have been created. In partnership with the Inter-American Development

Bank, the Bank supported the Center for Prevention of Disasters in Central America. Within the Government, three major milestones can be identified in terms of increased capacity to confront disaster. The first is the establishment of a permanent body for disaster management, the National Emergency Committee. The second is the creation of a disaster response structure in each ministry. The third has been the creation of the National Service for Territorial Studies, a scientific institute responsible for risk management. These agencies are staffed and run effectively

Overall the project outcome is rated **moderately satisfactory**. The project addressed the problems caused by the earthquake in a comprehensive way, and exceeded appraisal estimates in many components. Benefits were provided to a large number of low-income families, who were painstakingly identified according to criteria agreed with the Bank. The project was relevant to government priorities following the earthquake and substantially achieved all of its physical objectives. However, in several project components there were significant problems: housing was poorly designed in terms of adaptation to occupants' lifestyles and the quality of materials in some communities was poor. Efficiency was modest: although no ERR was calculated, unit costs were generally higher than appraised estimates (at this remove it is difficult to ascertain whether this was due to underestimation at appraisal or implementation inefficiencies). In the case of housing, high unit costs imposed a significant burden on the poor—resulting in high delinquency rates and the financial demise of the financial intermediaries involved in the project. This is one of several indications documented in this report that relocation took place with inadequate attention to social aspects. And in (just) one complex of public buildings seismic resistance was so low that repairs were necessary following another earthquake in 2001.

The establishment of the three disaster institutions, and the shared vision behind them, warrants an institutional development impact rating of **substantial**.

Sustainability is rated **likely**. By and large, project-built infrastructure is still in use. And some works are immaculately maintained, notably the public buildings, albeit many now serve different ministries than intended.

The Bank responded quickly after the 1986 earthquake, and the appraisal mission was staffed by some of the Bank's most disaster knowledgeable staff. Bank performance is rated **satisfactory**. The borrower's performance is rated **satisfactory**.

Among the lessons suggested by the project experience are the following:

- Do not have unrealistic expectations about low-income disaster victims' ability to pay for housing.
- Also, every effort should be made to build on existing social networks during relocation and resettlement.
- Lastly, when constructing seismic-resistant buildings, it is important to take into account the additional loading which could be caused by their intended use.

Gregory K. Ingram  
Director-General  
Operations Evaluation

## 1. Disaster Response: Two Steps Forward and One Step Back

1.1 A major earthquake hit San Salvador, the capital of El Salvador, on October 10, 1986, at 11:50 in the morning.<sup>1</sup> The 7.6 magnitude quake left 1,500 persons dead, 10,000 injured, and 300,000 homeless, and damage to physical assets totaled \$1,030 million; equivalent to one-fourth of the nation's 1986 GDP.<sup>2</sup> In response to the disaster, the World Bank financed the El Salvador Earthquake Reconstruction Project (Loan 2873-ES).

1.2 Over one-third of San Salvador's population of 1.5 million was directly affected by the earthquake. The most serious physical damage was to housing, commercial, and public buildings. The supply of electricity was cut, and telephone systems and other public services were interrupted. Basic urban infrastructure (water and sewerage, roads, and drainage) also sustained heavy damage.

1.3 Like several of its Central American neighbors,<sup>3</sup> El Salvador is a highly disaster-prone country. During the 400 years preceding the 1986 seismic event, San Salvador experienced 12 earthquakes over 6.5 on the Richter scale. On October 24, 1998, El Salvador was hit by Hurricane Mitch, which caused landslides, flooding, and extensive damage to coastal communities. Not long after, two more earthquakes further devastated San Salvador (see Box), causing extensive damage to the city in January and February of 2001. This succession of disasters highlights the importance to the central and local governments and the citizenry of taking preventive measures. The long-term impact of losing 10 to 15 percent of GDP to a single natural event about once a decade, is exacerbated by the added cost of more frequent smaller events.<sup>4</sup>

1.4 Reconstruction following the 1986 earthquake was hindered by civil war. However, between 1989 and 2000 El Salvador achieved peace, and poverty declined as the economy began to prosper. In the period before the 2001 quakes, the government carried out reforms that changed economic policy and the structure of government organizations. The earthquakes of January and February 2001 were a huge setback. Pre-earthquake projections of a 30 percent decline in poverty were made obsolete: poverty

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1. (Information from George Pararas-Carayannis. <http://www.geocities.com/CapeCanaveral/Station/8361/Quake2001ElSalvador.html>).

2. The estimate of total damage is based on a report by the UN Economic Commission for Latin America (ECLA) dated November 14, 1986.

3. In Central America, disaster figures are dizzying. Between 1960 and 1998, the region suffered the effects of 21 major floods, 8 hurricanes, 11 other tropical storms/weather events, 10 earthquakes, 5 volcanic eruptions, 4 major mudslides, 2 major fire emergencies, and 2 droughts. These disasters took the lives of 56,669 people, and affected 10,247,330 in Central America. Damages totaled more than \$15.5 billion (\$15,535,655,000). Figures based on an inventory of disasters in Central America carried out by CEPREDENAC (*Centro de Coordinacion para la Prevencion de los Desastres Naturales en America Central*). <http://www.cepredenac.org/doc/inventar.htm>.

4. Landslides and flooding are regular events, and the occurrence is not limited to the period just following major hurricanes.

levels rose between 2.6 and 18 percent — thus, *at a minimum* about 162,500 additional people temporarily fell below the poverty line as a result of the later quakes.

### **Box 1. More Recent Earthquakes**

On January 13 and February 13, 2001, two earthquakes struck El Salvador, killing more than 1,000 people and severely damaging the country's infrastructure. While most of the deaths occurred in a few urban areas, the physical destruction affected the entire country. The Economic Commission for Latin America has estimated the costs of the damages at about \$1.6 billion, about 12 percent of GDP. The damage occurred mainly in physical infrastructure and equipment (about \$0.9 billion), and the rest (\$0.7 billion) came from losses in production and income, losses that would be felt during 2001. The earthquakes affected about 18 percent of the population, destroyed 163,866 houses, and affected another 107,787 houses.

Sources of data: ECLA, *El Terremoto del 13 de Enero de 2001 en El Salvador: Impacto Socioeconómico y Ambiental*, LC/MEX/L457, 21 de Febrero de 2001, and *El Salvador: Evaluación del Terremoto del Martes, 13 de Febrero de 2001*, LC/MEX/L457/Add.2, 28 de Febrero de 2001, and Dirección General de Estadísticas y Censos, *Censo de Vivienda Afectada 2001*.

1.5 Seismic and extreme weather events take governments (and international organizations) by surprise too often. Earthquakes almost always occur where there are known fault lines; and Central America is located where three major tectonic plates converge. Seismologists also note that earthquakes tend to be more common in countries where there are volcanoes.<sup>5</sup> They make a distinction between *hazard* and *disaster*. In vulnerable countries hazards (earthquakes or floods, or tropical storms, etc.) take place with regularity *and no human action can alter this reality*. But it is the actions taken by policymakers and the extent to which cities are made ready to withstand such events that determine whether there will be extensive damage and loss of life.

1.6 Risk maps shared with the mission by the *Servicio Nacional de Estudios Territoriales* (SNET<sup>6</sup>) show that every part of the country is subject to either floods, landslides, volcano eruptions, and/or earthquakes. Between 1960 and 1998, Central America suffered the effects of 21 major floods, 8 hurricanes, 11 other extreme weather events, 10 earthquakes, 5 volcanic eruptions, 4 major mudslides, 2 major fire emergencies, and 2 droughts (see footnote 3). It was only chance that kept the impacts of many of these events just outside El Salvador's borders.

### **Evaluation Approach for an Older Project**

1.7 This report looks at a project begun 16 years ago, and the mission and beneficiary survey on which this report is based examined project impacts 7 years after the loan closed. This was at times a challenge. OED staff developed a questionnaire, and hired and trained a survey team. Doing a household survey 10 years or more after the housing

5. Because of the presence of subduction zones (where one tectonic plate is sliding under the other)

6. Publicly available versions contained in the Special Supplement to *La Prensa Grafica*, published October 8, 2002.

units were built identifies the problems with the component and offers clear lessons to future post-disaster operation worldwide. The passage of time weighed most heavily on the mission's efforts to assess how effective the project was at rehabilitating the micro-enterprise sector and giving training: essential baseline information has been lost and what record keeping remained left much to be desired. Although it is harder to track down staff that worked in the project, find project-related documents, and find data in key areas for accountability purposes, it would seem that on balance result of the exercise was quite valuable in terms of lesson learning. In the first place, an earlier visit to project sites might have seen a different world. Project-built buildings would not have had to survive two subsequent earthquakes, and the long-term results of insufficient attention to social aspects within the low-income housing efforts would not have been as apparent. Looking at this older project gave a much clearer picture of its contribution to borrowers' long-term development. Secondly, it allowed OED to examine sustainability and institutional development impact in greater depth.

## **2. Project Design**

2.1 The Bank responded quickly after the 1986 earthquake with a mission staffed by some of the Bank's foremost disaster experts. The government was primarily concerned with promoting economic recovery, restoring essential public buildings and services, and ensuring that the victims received assistance in a manner consistent with long-term urban planning goals. The El Salvador Earthquake Reconstruction Project consisted of \$65.0 million in Bank finance for local and foreign costs. Total project cost was estimated at \$102.4 million (actual project cost amounted to \$107.85 million).

2.2 The loan was approved on October 16, 1987, and made effective on June 17, 1988. The anticipated closing date was December 31, 1993, but the project actually closed two and a half years later on June 30, 1996. The ICR attributed project implementation delays to disruption caused by the civil war (1988-1989), the poor absorptive capacity of project institutions, a lack of managerial capacity in the newly created project implementation unit (the Reconstruction Unit), the lack of experience of key personnel, and the lack of coordination between the Reconstruction Unit and the implementing agencies. The final disbursement was made in November 1996.

### **Project Objectives**

2.3 The objectives of the project were to help: (i) rehabilitate and reconstruct the San Salvador metropolitan area through the provision of low-cost housing, public office and school buildings, and essential public services; (ii) support the expansion of the capital city toward the north; (iii) rehabilitate the micro-enterprise sector to restore its production and income generating capacity; and (iv) strengthen the government's capacity to plan and manage the reconstruction efforts and enhance its preparedness to deal with national emergencies in the future.

2.4 ***Project Components.*** The Bank financed 67 percent of the estimated total project cost, including physical and price contingencies. The project consisted of the following components at appraisal (estimated loan allocation in parenthesis):

1. Housing. The Bank loan financed \$8.2 million of the \$18 million total component cost for dwelling reconstruction. An additional \$2.2 million was made available for relocation expenses. The housing needs not covered by the project were to be covered by the private sector and other donors, including USAID and Italy.
2. Schools (\$11.8 million). Reconstruction of classrooms in greater San Salvador.
3. Public Buildings (\$14 million of the Bank loan was allocated for this component). Construction of two- and three-story office buildings for the Ministries of Justice, Planning, and Public Works.
4. Roads (\$8.8 million). Rehabilitation of the urban corridor linking San Salvador to Apopa, and Apopa to San Jose Las Flores.
5. Water Supply (\$0.5 million). Provision of water supply to Apopa to meet the needs of up to 2,500 additional families.
6. Telecommunications (\$4.0 million). Provision of three mobile telephone exchanges with an aggregate total of 4,000 lines.
7. Micro-Enterprise Credits (\$9 million). Loans (1,500) for fixed asset investments such as equipment and machinery, and for lines of credit to provide the working capital required to rehabilitate the micro-enterprise sector in San Salvador and develop micro-enterprises in Apopa.
8. Training (\$3 million). Given the amount of rebuilding that was needed and the shortage of skilled labor; classroom and on-the-job training was to be provided for 6,000 skilled and semi-skilled laborers in the construction trades. Within the context of the housing component, some apartment buildings were to be constructed as condominiums. Training for two groups of twenty community workers each was to be given to assist low-income families in applying for housing credits and to help them form condominium associations to manage and maintain their new shared dwelling units.
9. Studies and Technical Assistance (\$3.4 million). Improvement of the building code to take seismic resistance more into account, and update the national emergency plan. Preparation of technical designs for District 7, and procurement of consultant services to strengthen the organizational and management capabilities of participating agencies.

### **Project Preparation Issues**

2.5 *Creating an implementing unit.* The Reconstruction Unit (RU), headed by a Director-General, was established in the Ministry of Planning (MIPLAN) to manage the



overall reconstruction effort and coordinate foreign assistance. The Bank assisted MIPLAN in the preparation of a detailed reconstruction program.

2.6 *Planning for the northern expansion.* Before the earthquake, the poorest families lived at an unhealthy density in *mesones*, tenement rooms subdivided out of larger apartments or single-family homes. The government encouraged some of the victims to relocate to Apopa, a northern suburb of San Salvador. Many of the project-financed activities—the telephone exchange, the paving of the roads, the provision wells for potable water, as well as the construction of much of the low-income housing— took place in and around Apopa. As had happened following earthquakes in several other Latin American cities (such as Popayan, Guatemala City, Managua, and Mexico City), the El Salvador earthquake provided an opportunity to remove slum dwellers from the city center and opened urban land that had increased in real estate value to higher value development. Of course, it also permitted the families that remained behind to be housed at a lower density, and much of the land around Apopa is relatively flat and, thus, not at risk of landslides.

2.7 The northern expansion and the relocation of hundreds of low-income families to Apopa were originally quite contentious because plans did not provide for economic heterogeneity in the new neighborhoods and did not take into account the increased commuting distance and cost of getting to work. The mission found that these issues have been laid to rest in the face of the success of the northern expansion. Even middle-income families have moved to the scores of new neighborhoods (*colonias*) that have sprouted up in the 16 years since the earthquake along the road upgraded and paved by the project.

### **3. Implementation: Intended Outcomes and Unexpected Results**

3.1 While the review of implementation below covers all objectives of the project, it focuses most intensely on the rehabilitation of San Salvador and especially the housing component, which also involves the second objective, the expansion of the city to the north. The reason for this focus is that several project components were ultimately implemented by other donors or financed by the government out of the force account. In addition, there is a lack of adequate documentation on work that was conducted at a minute scale (housing repairs and small credits for new entrepreneurs). The location of new housing, on the other hand, was well documented, and the lessons learned in that component were of interest for the OED Social Development and Natural Disaster studies.

3.2 The ICR reports on project achievements and provides a full description of the nature and causes of project delays in the roads, schools, and housing components. It also describes reporting and accounting deficiencies. It argues that delays diminished the emergency nature of the project. Seven years later OED visited the project-built infrastructure for accountability purposes, and this evaluation identifies the long-term impacts of the project's activities.

## Objectives (i) and (ii): Rehabilitation, Reconstruction, and Expansion to the North

### *Housing*

3.3 **Infrastructure.** The project's reconstruction activities centered on the provision of private homes (\$29.13 million spent versus \$20.2 appraised). The appraisal document<sup>7</sup> calls for: (i) the reconstruction of 3,000 units of low-cost apartments in situ; and (ii) construction of 1,000 sites and services plots (embryo units with a wet utility core and one unfinished room) for families being relocated to Apopa's District 7. The ICR reported that the original target for new housing units was surpassed by 31 percent: 5,277 new housing units were constructed, and an additional 1,436 were rehabilitated and improved, but it was silent on the sites and services component. The PPAR mission found that both high-rise and single-story units were actually built, but that no "wet utility core" units had actually been constructed. During site visits to District 7, OED found that instead of core units, with the support of the Government of Italy, it proved possible to construct completed housing units there, and in recognition of Italian generosity the area has become known as the "Italian District" (*Distrito Italia*). Government informants said that no core units were constructed anywhere, and official reports available in-country cite 6,344 as the total number of housing units built.<sup>8</sup> The mission was unable to find documentation identifying the location of the repaired homes and consequently did not visit any. Once cracked masonry is replastered there is nothing to see in any event.

3.4 **Credit Aspects.** An additional hurdle that only confronts disaster projects is that beneficiary identification is difficult: families need to have their status as "victim" verified in addition to income and employment status. Habitat, a local NGO not to be confused with either the U.S. or UN groups with the same name, was contracted by the Vice-Ministry of Housing and Urban Development to help disaster victims fill out the necessary forms to establish their income (only low-income families were selected) as well as to perform home visits (in order to verify that applicants had been harmed by the seismic event).

3.5 Of the 16,000 families that applied, Habitat qualified 1,200 (8 percent) that met all the criteria. All received housing, albeit at monthly payments about 50 percent higher than they were led to expect when they began the application process. Other families were qualified by project partners. The PPAR mission identified several individuals who had worked on the NGO side of the housing credit qualification effort. When interviewed they made a number of points based on their experience:

- The cost of the project built homes was too high for the project beneficiaries. They estimated that \$2,000 was the most that families that met the project's (low) income criteria could afford.

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7. Following emergencies, this is the Memorandum of the President [MOP]).

8. *Fondo Social para la Vivienda*, March 31, 1994.

- The housing was *unnecessarily* expensive (some costing \$6,000 per unit).<sup>9</sup> The units were only “affordable” with subsidies *and* the assumption of continued wage inflation.
- Low housing costs are only possible when projects provide the minimum in terms of finish and amenities. People will decorate when they can afford to.
- Their high cost was a function of using greenfield sites rather than rebuilding in situ (where water, sewerage, and electric connections already existed).
- The decision to relocate was environmentally negative (it would not have been necessary to cut trees, sacrifice agricultural land, etc. had victims been allowed to stay put).
- Moving beneficiaries farther from their places of work reduces the amount that they can pay for housing costs.
- Mishandled relocation ruptured long-established social and family networks.
- Many poor families, including those that met the income criteria, have seasonal income. Obligating them to pay penalties for missed monthly payments is ill-advised
- The current legislation on land titles prevents families with legitimate rights to land (heirs, for example) from having access to credit. Especially in the post-disaster context, it has to become easier for those with complicated land tenure situations to get provisional title. Traditional land transfer practices need legal recognition.
- All the financial intermediaries that worked with the project were bankrupted by the high cost of collection and management, not to mention the high levels of loan delinquency.

3.6 The last point merits further discussion. In order to get housing credit, beneficiaries had to sign an agreement with the *Financiera Nacional de la Vivienda* (FNV, the Social Housing Fund, an agency that granted credits for housing development to employees under the social security system) or the *Programa Nacional de la Vivienda Popular* (National Program for Popular Housing, PRONAVIPO) which in turn signed contracts with Savings & Loan Associations to provide long-term mortgages to home buyers (the whole arrangement was known in-country as the Program *Nuevo Amanecer*).

3.7 That the monthly payments on the project-provided homes were too expensive for the intended beneficiaries is reflected in the (anecdotally reported) low levels of repayment at the original loan amount and term. The four financial institutions associated with *Nuevo Amanecer* were: AHORROMET S.A.; ATLACATL S.A.; CASA; and CREDISA. They were either closed or under liquidation by the time of the OED mission, which made obtaining actual repayment data too time-consuming, given the mission travel schedule.<sup>10</sup> Habitat staff estimated that half of the original families had been

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9. Taking both repaired and new houses together and dividing them by the amount spent on the housing component, the average cost per unit is \$4,330. Total cost to the beneficiaries is estimated at about \$3,000 taking into account GOES subsidies and others paid out of the Japan Grant. It was once planned that payments would start small and increase annually, but this idea was never put into practice once one of financial intermediaries offered a fixed payment.

10. Other institutions have bought their portfolios for some fraction of their nominal value.

obliged to move out, many having forfeited years of mortgage payments. Survey results (given below) confirm this estimate, although they cannot explain why the original inhabitants left. Another project participant interviewed during the course of the mission was the Cooperative Housing Foundation (CHF), a nongovernmental agency, which both built houses and qualified beneficiaries.

3.8 The families who were able to keep up their original payment plans have already paid off their loan. Those who fell behind were offered the opportunity to refinance, but when the accumulated interest was incorporated into the principal, a higher rate was applied and the term significantly extended. Thus, many original families are still paying back their loans. But they are complaining bitterly and they have created associations to lobby the government for loan forgiveness. Numerous association members have stopped paying, although some credit agencies (including successors to the bankrupted ones) forcibly evicted delinquent mortgage holders and resold the units according to families interviewed by the mission and its survey team. The cost of screening applicants and administering the loans was considerable, and it was passed on to the beneficiaries, who had just suffered a disaster with loss of personal possessions, medical or funeral expenses, and temporary loss of employment.

3.9 ***Social Aspects (Housing)***. In order to find out whether the families living in project-financed homes more than a decade later were the ones qualified by Habitat, and to see whether they had been driven from the new communities by the high cost of credit (see discussion below), the survey asked current residents to describe the 1986 earthquake's impact on their lives. This reveals the degree to which the current occupants are legitimate victims of that event. Ultimately, the surveyors visited 916 households in 10 communities (a little over 17 percent). They also asked how the project-created communities were functioning, and how the dwelling units had held up over the years. The questionnaire and a detailed analysis of the responses can be found in Annex B.

3.10 Many of the neighborhoods constructed during the project have fallen under the control of violent gangs. The obvious dangers complicated the survey process significantly. Several neighborhoods are badly located, near rivers that tend to flood and on the edge of embankments. One unit is in danger of falling off a cliff – the occupants no longer use the room which is in the air now that the soil on which it was built has dropped into the river. Another community is only linked to the outside world by a bridge that is about to be torn down because its abutments are poorly supported: the underlying soil has washed away.

3.11 A strong majority of respondents (67 percent) said that they were the original occupants. Nearly 79 percent of those interviewed said that they owned the unit they were occupying. The observed longevity of the respondent group in El Salvador may be partly due to NGOs' insistence that, when there was reason to believe that the family unit was unstable, the units be put in the wife's name.<sup>11</sup> The survey found some communities

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11. A previous project assessment (Argentina Flood Rehabilitation, Loan 3521), documented that, in Argentina, following a major flood positive social impacts resulted from putting house and land titles in the wife's name.

where 50 percent of respondents reported that a woman was the legal homeowner; and that, overall, 37 percent of the homes responding were owned by women.

3.12 Many of the visited units (68) were found to be abandoned or (perhaps temporarily) uninhabited.<sup>12</sup> Taking those into account, only 57 percent of units for which OED has data are occupied by the original occupants. During the survey, 273 households answered the door but refused to be interviewed. It is risky to infer anything about non-respondents. Nevertheless (since all observers acknowledge a squatter presence), if the abandoned units and those who refused to respond are counted with those who admitted that they were not the original inhabitants, only 47 percent of units would be currently occupied by income-qualified and NGO-certified disaster victims. Given the scale of the emigration out of Central America (current estimates are that about a third of all Salvadorans reside in the United States), it can be concluded that, in general terms, disaster victims who were capable of meeting the required payments were satisfied enough with the housing they received under the project to stay in it.

3.13 As noted above, the project built condominiums (low-income, multi-story apartment buildings) as well as single-story semi-detached housing units. A representative sample of both groups was surveyed. Conditions were substantially worse in the condos than in the individual units. When asked in an open-ended question what they like best about the housing they received, inhabitants of single-story houses most common answer was that they liked “everything.” Their second most common answer was that they enjoyed having a place that they owned. In contrast, the condo owners were quite prone to say that they liked “nothing” about their housing, although there were numerous respondents who were quite content. It could be observed in communities where families were provided semi-detached houses, they tended to make major improvements. About a fifth of respondents reported building additional rooms onto their unit. Condo occupants tended to make repairs rather than improvements.

3.14 The social aspects on which the livability of the housing infrastructure rests did not receive adequate attention. The project documents called for condo associations to be created to manage and finance maintenance of the commons in each condo. While some training was given in each condo (by consultants) at the outset, none of the condominium groupings was supported until they reached the point where they could sustain their associations. The results can be easily imagined. If the roof leaks, either the family under it repairs it, or it does not get fixed and dampness permeates the building. The interior dankness is further exacerbated by plumbing leaks—any family with leaky pipes in their floor has no incentive to fix them as the impact of the leak affects only their downstairs neighbors. Furthermore, the architects did not take into account that poor families wash their laundry in the sink, and since there is no place to hang it outside (and it would be stolen if left unguarded in any event) they have laundry lines in their apartments and even more dripping water seeps into the masonry. Of course a condominium association, if such

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12. The existence of unoccupied units provides a location for gang-related activities. There is reason to believe that the worse a community gets, the more abandoned units, the more powerful gangs become. In some communities, lending institutions recognize this problem and fill the units with families whose legal relationship to the unit is only clarified later.

a thing existed, could contract one of the women to watch outdoor laundry lines for a very small salary, but nowhere have such associations been created by the current occupants. In contrast, in the *mesones* that they occupied before the earthquake, community cohesiveness — partially a result of a smaller number of families per building — had allowed laundry to be dried in common outdoor areas unattended. The annex provides more information regarding what is working and what is not in the project-built communities.

### ***Schools***

3.15 The appraisal goal was to reconstruct about 400 classrooms in San Salvador and Apopa. This component was not executed because grant money for the same purpose was made available by USAID. An additional 160 classrooms were to be rebuilt in the same area through reallocation of \$4.1 million under an existing Bank-financed education project (Loan 1738-ES). The project redirected its attention to undamaged zones away from the capital area. The PPAR mission did not visit these schools as there is no record of their original condition, and, following a decade of use they are likely to look as though they could once again benefit from maintenance. The ICR reported that 2,512 classrooms were rehabilitated with the loan proceeds and that new school furniture was acquired for 350 schools as well.

### ***Public Buildings***

3.16 All the major public buildings constructed were inspected by the OED team to ascertain how they had resisted the 2001 earthquake, as well as to evaluate their current condition and usefulness, and the degree to which they were being maintained. The appraisal estimates for public buildings comprised the demolition of four government buildings and the construction of five new ones. The mission visited the complex where two- and three-story office facilities were originally constructed for MIPLAN, an institution that no longer exists. They are currently being used by the Ministry of Economy and the Ministry of Education. They are in a wonderful state of repair and maintenance — unfortunately — they recently had to undergo repairs because of the damage they experienced in the 2001 earthquakes. Although the buildings' steel-reinforced concrete frame had been designed to resist earthquakes, the structural engineers did not take into account that some of the rooms would be used for filing. The weight of the file cabinets, when they were located in rooms used nearly exclusively for file cabinet storage, caused the buildings to be unbalanced to a degree that led to structural damage to bearing walls and cosmetic damage to the exterior. The cost of the repairs was reported to be SVC 2.5 million (government funds) by staff responsible for their oversight. When buildings built on the site where the previous buildings had to be demolished because of earthquake damage, are themselves damaged by the next earthquake, it calls into question the degree to which earthquake resistance was designed into the structures *and* the extent to which the then government (and the Bank's staff) were truly committed to mitigation.

3.17 The mission also visited the *Centro Judicial Isidro Menendez* complex constructed for the Ministry of Justice. It found that the facilities were in excellent

condition and in full use. They have been well maintained, surrounded by amenity plantings, and they suffered no significant damage following the 2001 quake. As of September 2003, 1,200 employees were working in the complex. There were 67 courts and tribunals (the distinction reflects their focus on civil, penal, or mercantile matters) in regular functioning.

3.18 Additionally, the mission visited the complex originally created to house the Roads Department of the Ministry of Public Works. The facility was turned over to the National Police and it is currently maintained at a high level of security, seemingly without free public access. After some formalities, the mission was given permission to inspect the facilities. The construction was completed to a high standard, it is in an excellent state of repair and is receiving regular maintenance. The government maintains that the costs for much of the infrastructure built were higher than necessary because the Bank refuses to accept Central American construction practices.<sup>13</sup>

3.19 While the ICR stated that 26 government buildings were constructed, it was not possible for the mission (using the project files before going in-country, and with government assistance afterwards) to identify that many buildings. The government completion report for the project only claims six. It is, however, difficult to say how many buildings were observed because, what might be considered to be separate buildings were connected by walkways with concrete floors and roofs. Government reports give figures for repairs to an unspecified number of post offices. Some housing units were still being used for project purposes and by local government at loan closing, and they may have been taken into account.

### ***Roads***

3.20 Project financing provided for the upgrading of approximately 16.5 kilometers of road connecting San Salvador and Apopa, and Apopa with San Jose Las Flores. The civil works included paving, drainage structures, and street illumination. Implementation of this component was accomplished by contracting its construction in two sections. The upgrading of 8 kilometers of road linking San Salvador and Apopa was completed as appraised, and the Apopa-San Jose Las Flores road was completed as anticipated but after the loan closed and by force account.

3.21 The Ministry of Public Works kindly provided the mission with 2002 traffic data for the Bank-financed Apopa road. Annual average daily traffic (AADT) consists of: 15,385 cars and pickup trucks, 4,165 minibuses, 2,122 full-sized buses, 2,004 two-axle trucks, and 231 three-axle trucks. The mission traveled the two roads during off-peak times and rush hours to ascertain their condition and utilization. Their condition is good but reflects the intensified use to which they are subject. Even during off-peak hours the traffic is heavy. They have been regularly maintained, although they could use patches in a few spots. The Highway Conservation Fund has included the needed repairs in their

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13. In a confidential self-evaluation prepared by the Borrower.

2004 work program. A cloverleaf and overpass are under construction to facilitate traffic flow at a major intersection.

### ***Public Services***

3.22 ***Water.*** The original goal of this component was to provide water supply to 2,500 families in District 7 (Apopa). The ICR reported that the National Water and Sewerage Authority (ANDA) surpassed this figure without utilizing any of the loan proceeds. The mission met with ANDA staff, who reported that although the water supply had been increased when two deep wells were bored, the expansion of San Salvador toward the north has rendered this project contribution less important than it might otherwise have been. Between 2000 and 2001 occasional shortages were the subject of complaints. By September 2003, when the mission was in country, the news media were highlighting the severity of the water shortage in Apopa. One water company official explained that the current shortage is so great, and the production of expensively produced deep wells in the area is so small, that the water authority believes that the shortfall can only be overcome with a large-scale aqueduct that brings water from distant sources to meet the demand.

3.23 ***Telecommunications.*** The ICR reported that the objective of “three mobile telephone exchanges with a total capacity of 4,000 lines...was surpassed” with the purchase of three exchanges with a total capacity of 13,000 telephone lines. The mission opted not to attempt locating portable switching devices purchased several decades ago.

### **Objective (iii): Rehabilitation of Micro-Enterprise and Income Generation**

3.24 ***Micro-Enterprise Credits.*** The Central Bank (BCR) was the original implementing agency for the micro-enterprise credit component. During implementation the component was re-assigned to the Multi-Sectoral Investment Bank (BMI). The mission met only with staff from the BMI, and contacted three recipients of micro-credit. One of them had gone bankrupt. The two that were still functioning, a commercial bakery and a private school were visited and key staff were interviewed. Both were sizeable operations. Interviewees stated that the principal place of business had been destroyed, and were it not for the credit, they would have gone under. The ICR reported that overall 1,344 small loans were granted (compared to 1,500 originally estimated). Government documents report 1,436 small loans granted.<sup>14</sup> The amount made available was approximately \$4.5 million (the original objective was to provide \$9 million).

3.25 Most government informants were of the opinion that, beyond the lower-than-anticipated level of lending and the shortfall in amount lent, the micro-enterprise credits had not been very successful in creating new entrepreneurs or keeping indebted businesses from closing their doors. BMI staff argued that the best use of this type of credit is with businesses large enough to be subject to commercial credit. And that those who had outstanding loans that were not in arrears at the time of the disaster but which they could not make payments on because of the disaster had the best record when

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14. *Fondo Nacional para la Vivienda*, March 31, 1994.



provided with a breather and additional working capital. Based on the mistakes committed and lessons learned under this loan, the provision of lines of credit was one of the most successful government activities following the 2001 event.

3.26 **Training.** INSAFORP, the institution involved in project-financed vocational training and social organization was also visited and the capacity-building process discussed. Because none of the current staff had been with the organization during the project, and because old records had been destroyed prior to a move to a new office building INSAFORP staff could provide no data on classroom and on-the-job training for 6,000 skilled and semi-skilled laborers in the construction trades; and community workers each to assist low-income families in relocating, applying for housing credits, and support for the creation of condominium associations. The ICR noted, “The original target for this component was surpassed by 160 percent. Bank loan funds provided for the short term training of 2,000 persons per year over three years in building trades skills. This objective was greatly surpassed with the training of 15,568 persons.” It is not known whether the training was residential or on-the-job, and it has already been noted above (see para. 3.14) that the training with the condo groups was inadequate.

3.27 **Studies and Technical Assistance.** The ICR reported, “five of the studies (the most important being the study to improve seismic construction standards, planning and regulation, including the improvement of the existing building code) were carried out with the help of local and foreign consultants. The study pertaining to the detailed urban design of the District 7 (Apopa) was partly completed without Bank financing with the support of bilateral agencies that provided housing for low income families.”

#### **Objective (iv): Strengthening Capacity for Preparedness and to Plan and Manage Reconstruction**

3.28 In partnership with the Inter-American Development Bank (IDB), the Bank (under an FY99 IDF Grant) supported the Center for Prevention of Disasters in Central America (CEPREDENAC). The objectives of CEPREDENAC are to support vulnerability and risk assessments, training for public and private officials, carrying out of small emergency response tests, and raising awareness about ways to reduce risks at the local level.

3.29 Within the government, three major milestones can be identified in terms of increased capacity to confront disaster. The first is the establishment of a permanent body for disaster management, the National Emergency Committee (*Comite Nacional de Emergencias*, CNE). The CNE consists of a standing secretariat and a number of decentralized offices. One representative from each ministry sits on the committee, which only meets in times of need. The second is the creation of a disaster response structure in each ministry. These structures are unique to each ministry as the nature of each one’s activities in times of disaster varies. The third has been the creation of the National Service for Territorial Studies (SNET), a scientific institute responsible for risk management. Its purview extends to geology, hydrology, and meteorology. It monitors all phenomena having to do with the weather, the ocean, the climate, seismic and volcanic events, and soil

stability; as well as population dynamics, human settlement patterns, ecosystem stability, and it evaluates the impact of real and proposed investments on all of the above.<sup>15</sup>

## 4. Conclusions and Lessons

### Achievement of Objectives

4.1 Given El Salvador's vulnerability to disaster, the most relevant of the objectives was to strengthen the government's capacity to plan and manage reconstruction efforts and enhance its preparedness to deal with national emergencies in the future. This has been fully attained. The PPAR mission in September of 2003 found that significant progress had taken place in this area.<sup>16</sup> Evidence of the increased government capacity to manage disaster consists of the new regional and national institutions that have been created and run effectively.

4.2 The project contributed effectively to the rehabilitation of the San Salvador metropolitan area, performing best on the reconstruction of public offices and essential public services (even those done under the project entirely with government funds). The expansion of the capital city toward the north took place largely as anticipated. Indeed, it would be fair to say that what happened in that regard exceeded expectations.

4.3 Disaster-related institutional development has been concentrated at the central government level. Local governments need to commence building their capacity for disaster response and disaster risk management creating and keeping specially designated groups with the professional training to react effectively. Research in neighboring Honduras and Nicaragua indicate that investments in prevention can pay major dividends even in years when major disasters do not occur. And both of those neighboring countries have incorporated local governments into permanent disaster response structures.

### RATINGS

4.4 *Outcome.* It is clear that the project achieved highly relevant objectives but with significant shortcomings. Overall the project outcome is rated **moderately satisfactory**. The project substantially achieved all of its physical objectives, but in several of the project components there were significant problems (housing [design, quality of materials, poor adaptation to occupants' lifestyles, inadequate attention to social aspects] poor targeting and record-keeping in the micro-enterprise credits, and the lack of seismic resistance in some public buildings). Efficiency cannot be evaluated with an ERR (which emergency reconstruction projects do not calculate). Unit costs were generally higher than appraised estimates, but at this remove it is difficult to ascertain whether this was due to underestimation at appraisal or implementation inefficiencies. Low-cost housing

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15. SNET was only created in 2001 and since 2002 receives \$1.3 million in annual funding. Donors provide additional support for certain monitoring activities.

16. The impetus for the observed change includes Hurricane Mitch and the 2001 earthquakes.

was provided to the target group. Thousands of urban units were provided to carefully screened beneficiaries. However, in the case of housing, high unit costs imposed a significant burden on the poor.

4.5 *Institutional Development Impact.* The PPAR mission was able to ascertain that the institutional capacity developed initially in the RU and implementing agencies is alive and well, albeit sitting in new positions in the public and NGO sectors. Although not all the project's institutional objectives were attained (for example, the poor experience with the condo associations), the project had an impact far beyond them. The project experience with micro-enterprise credits in the post-disaster context, while only partially successful at best, reportedly taught valuable lessons and led to a situation where such credits are now managed with great success. A new seismic-resistant building code was developed, and the National Assembly modified the existing building law to allow its issuance. The period since project closing has been fraught: two more major earthquakes and Hurricane Mitch. But the result of the work begun under the Bank loan, and the added stimulus of repeated buffeting by disasters has been the creation of permanent public institutions to manage risks, monitor hazards, and predict disasters. And, in some ways, these are an example to other countries in the region. SNET staff noted that there had been a major change in strategic thinking on disasters in the past decade: risk management is central in the government planning process for the first time. The establishment of the three disaster agencies, and the shared vision behind them, warrants an institutional development impact rating of **substantial**.

4.6 *Sustainability.* Given the amount of time that has elapsed since the project closed, its sustainability can be rated on observed rather than predicted performance. Some of the infrastructure developed under the project has problems: the housing is made with poor-quality materials (see survey results in the annex), and a number of communities have been built in areas safer from earthquakes but vulnerable to run-off and landslides. But by and large, project-built infrastructure is in use. And some works are immaculately maintained, notably the public buildings, albeit many now serve different ministries than intended. Sustainability is rated **likely**.

### **Bank Performance**

4.7 The Bank responded quickly after the 1986 earthquake. The appraisal mission was staffed by some of the Bank's foremost disaster experts. Bank staff helped to design a project that addressed the problems caused by the earthquake in a comprehensive way. The government reports that the Bank also supported the work of the RU quite effectively. Staff also coordinated activities with other donors and mobilized funding from other sources that complemented project activities in important ways (Italy and Japan). The urgency surrounding project preparation may have caused some of the project's components to be underestimated and contributed to project delays (in the education sector and with the road component due to land acquisition difficulties). The borrower highlighted the quality of the management brought to the project generally, although there were complaints about the Bank insistence on applying models from

elsewhere and unwillingness to take into account Salvadoran social characteristics.<sup>17</sup> On balance, Bank performance is rated **satisfactory**.

### **Borrower Performance**

4.8 Although there were problems with reporting and accounts (*para.* 3.2), the Reconstruction Program is widely considered to be a major government achievement. Project-built infrastructure that remained in public hands has been well maintained, and, notwithstanding all the difficulties described in this report, government commitment to cost recovery in the housing component is noteworthy. The project exceeded appraisal estimates in many components, and benefits were provided to a large number of poor families, who were painstakingly identified according to criteria agreed with the Bank. Assistance to the OED team and willingness to learn from the project experience were exemplary. The borrower's performance is rated **satisfactory** overall.

### **LESSONS**

4.9 ***Infrastructure should be responsive to demand and be constructed to cover the needs of the expected population.*** The wells that were constructed barely provided enough water to serve the existing population of Apopa plus the new housing units constructed under the project. Yet it was a main project objective to support the expansion of the capital towards the north. Today, there is not enough water to serve the northern area.

4.10 ***When constructing seismic-resistant buildings, take into account the loading implications of their intended use.*** The public buildings that were constructed under the project were supposed to be earthquake resistant, yet some were damaged in the 2001 earthquake because the weight of all the file cabinets within the file room was not taken into account by the engineers and architects that designed their structure.

4.11 ***Do not underestimate the time and effort needed to train community groups to manage infrastructure built by the project.*** As was found by the recent OED study on Social Development,<sup>18</sup> Bank projects consistently fail to take fully into account the amount of time and the extent of the effort that will be required to leave community groups in a condition that will allow them to sustainably manage the project-built infrastructure. The experience with the condominium associations under this project was execrable, and detracts from the numerous significant achievements that were made in many sectors, including housing.

4.12 ***Build on existing social networks when relocating disaster victims.*** The families who had lived together in *mesones* had developed patterns of interaction based on an established level of trust. They had spent years working out ways of doing things like childcare, laundry, and holidays; there was a formal and informal leadership structure.

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17. Borrowers Supplementary Implementation Report, July 11, 1996, p. 31.

18. *An OED Review of Social Development in Bank Activities*, 2003.

When they were relocated, no effort was made to keep social groupings together. Even under the best of circumstances, taking people from a *meson* arrangement (where there had been a landlord involved with building maintenance) and making them owners of condominium units was going to be a challenge. Putting together families that did not know each other made the adjustment infinitely more challenging.

4.13 ***Do not have unrealistic expectations about disaster victims' ability to pay for housing.*** The occupants of the housing units have been through three earthquakes in recent memory. This has affected their ability to pay for food, clothing, and medical care. Emergency projects need to recognize that low-income beneficiaries are likely to have lost most of their possessions during and after a disaster event that destroys housing. Normal expectations regarding cost recovery in the short term need to be held in reserve for the middle income families. It makes little sense to deal with the poor by means of repayment schemes that cannot work for them. Emergency projects should screen middle-income housing beneficiaries by ability to pay; and they should just give away (or heavily subsidize) minimally finished units for the poor. In this case, housing costs were too high (as indicated by the extent of refinancing), need was weighed more heavily than ability to pay, and the consequences for the housing finance sector are still being felt.



## Annex A. Basic Data Sheet

### EL SALVADOR EARTHQUAKE RECONSTRUCTION PROJECT (LOAN 2873-ES)

#### Key Project Data (amounts in US\$ million)

	Appraisal estimate	Actual or current estimate	Actual as % of appraisal estimate
Total project cost	102.4	107.85	5%

#### Project Dates

	Original	Actual
Departure of Appraisal Mission	11/24/86	10/20/86
Board approval		10/16/87
Signing	8/87	10/16/87
Effectiveness	12/31/87	6/17/88
Closing date	12/31/93	6/30/96

#### Staff Inputs (staff weeks)

	Actual/Latest Estimate	
	N° Staff weeks	US\$US\$('000)
Through Appraisal	103.0	210,600
Appraisal – Board	13.1	28,400
Supervision	207.5	570,400
Completion	5.9	14,000
Total	329.5	823,400

#### Mission Data

	Date (month/year)	No. of persons	Staff days in field	Specializations represented <sup>2/</sup>	Performance Rating <sup>1/</sup>		
					Implementation Status	Development Impact	Types of problems <sup>3/</sup>
Identification/ Preparation	10/86	6	5	LO,H,A,U,ED			
First - Appraisal	11/86	7	14	LO,H,A,U,ED,S,L			
Post- Appraisal	1/87	3	5	LO,A,H			
Post- Appraisal	3/87	7	5	LO,H,A,U,ED,S,E			
Post- Appraisal	4/87	2	10	I,O,U			
Post- Appraisal	4/87	4	9	LO,E,W,H			
Second - Appraisal	5/87	3	12	LO,H,E			
Post- Appraisal	10/87	7	3	LO,A,L,ED,H,W,P			
Supervision	10/87	6	5	TM	2	1	M,T
Supervision	11/87	2	5	TM	2	1	M,T
Post- Appraisal	12/87	2	13	LO,H	N/A	N/A	N/A
Supervision	4/88	4	3	TM	2	1	M,T

	Date (month/year)	No. of persons	Staff days in field	Specializations represented <sup>2/</sup>	Performance Rating <sup>1/</sup>		
					Implementation Status	Development Impact	Types of problems <sup>3/</sup>
Supervision	6/88	3	5	TM,H,E	2	1	M,T
Supervision	11/88	1	10	F	2	1	M,T
Supervision	1/89	2	5	TM,H	2	1	M,T
Supervision	2/89	1	7	F	2	1	M,T
Supervision	6/89	1	5	TM	2	1	M,T
Supervision	8/89	1	3	TM	2	1	M
Supervision	9/89	1	6	TM	2	1	M
Supervision	10/89	1	6	TM	2	1	M
Supervision	3/90	2	6	TM,H	2	1	M,F
Supervision	10/90	1	4	TM	2	1	M,F
Supervision	1/91	2	5	TM	2	1	M,F
Supervision	3/91	1	5	TM	2	1	M,F
Supervision	3/91	1	5	TM	2	1	M,F
Supervision	3/91	1	5	TM	2	1	M,F
Supervision	8/91	1	5	TM	2	1	M,F
Supervision	11/91	2	5	TM,H	2	1	M,F
Supervision	3/92	2	5	TM,H	2	1	M
Supervision	7/92	2	5	TM,H	2	1	M
Supervision	11/92	2	12	TM,H	2	1	M
Supervision	2/93	2	5	TM,H	2	1	M
Supervision	7/93	3	11	TM,H,E,	2	1	M
Supervision	8/93	1	5	TM	2	1	M
Supervision	3/94	3	12	TM,E,H	2	1	M
Supervision	10/94	1	7	TM	S	1	M
Supervision	3/95	1	5	TM	S	1	M
Supervision	7/95	1	5	TM	S	1	M
Supervision	2/96	1	4	TM	S	1	M
Supervision	5/96	1	4	TM	S	1	M
Completion	7/96	2	5	TM,E	S	1	-

<sup>1/</sup> 1=Problem free; 2=Moderate Problems; S=Satisfactory

<sup>2/</sup> L.O.=Loan Officer; L=Legal; P=Procurement Specialist; W=Water Supply Specialist; S=Seismic Specialist; A=Architecture; ED=Education Specialist; U=Urban Planner; H=Housing Specialist; E=Engineer; F=Financial Specialist; TM=Task Manager

<sup>3/</sup> M=Managerial; T=Technical; F=Financial

## Other Project Data

Borrower/Executing Agency:

### **FOLLOW-ON OPERATIONS**

<b>Operation</b>	<b>Credit no.</b>	<b>Board date</b>
Basic Education Modernization Project	3945-ES	1995



## Annex B. Results of Household Survey in El Salvador

### SURVEY METHODS AND SAMPLE SIZE

A total of 918 housing units were visited in greater El Salvador (including Apopa and Santa Tecla). In six neighborhoods of single-family homes surveyors visited 753 units, and in four neighborhoods of multi-story condominium buildings surveyors visited 165 families. Table B1 shows the response rate.

**Table 1: General Survey Information**

	No.	Percent
Housing units visited	918	
Consent to be interviewed	465	51%
Abandoned/uninhabited units	89	10%
Declined to be interviewed	364	39%

A team of four surveyors conducted the survey between September 25 and 29, 2003, under OED supervision. The survey instrument (attached to this annex) was developed in conjunction with the Ministry of Foreign Relations Department of External Cooperation. The housing units surveyed covered the work of the four participating financial institutions: CREDISA, CASA, Atlacatl, and AHORROMET. It was not possible to use random sampling. In many areas housing was not numbered and streets had no visible name. It also was not possible to find maps of the communities. Surveyors were unwilling to enter a number of communities for safety reasons, and government informants concurred that the risk was as great as the surveyors described. The surveyors stayed in visual contact with each other at all times, going to all the units on every street or floor. A vehicle was placed at the disposition of the survey team, and the driver assisted with the monitoring of gang activity. Work in each community ended when the survey team or the driver felt endangered, or at the end of the working day. The surveyors participated in the data analysis process. At the end of each day there was a debriefing with the task manager. At the end of the analysis process the team presented written and oral observations.

### HOUSEHOLDER CHARACTERISTICS

One third of all respondents said they were not the original occupants of their homes. Almost 70 percent had lived in the capital city before living in their current home, while 22.4 percent had lived in another city, and only 8.2 percent had moved to where they currently lived from rural areas.

A large majority, 78.6 percent, said they owned the home, with almost 50 percent of the leases in the name of the man of the house and 39 percent in the woman's name. (For the rest, either both names were on the lease or they did not know.) In contrast, only one-quarter of the respondents had been homeowners before they moved to their current

unit. Sixty-two percent had been renters, and 11 percent had been non-paying members of others' households.

**Table B2: Responses to Homeownership questions**

		Number	
<b>Did someone occupy this unit before you?</b>	<b>Yes</b>	<b>153</b>	<b>33%</b>
	<b>No</b>	<b>313</b>	<b>67%</b>
<b>What is your legal situation regarding this house?</b>	<b>Owner</b>	<b>316</b>	<b>78.6%</b>
	<b>Under contract</b>	<b>10</b>	<b>2.5%</b>
	<b>Renting</b>	<b>58</b>	<b>14.4%</b>
	<b>Occupying an abandoned house/ squatter</b>	<b>18</b>	<b>4.5%</b>
<b>If you own this unit, in whose name is the title?</b>	<b>Man</b>	<b>193</b>	<b>49.5%</b>
	<b>Woman</b>	<b>153</b>	<b>39.2%</b>
	<b>Both</b>	<b>7</b>	<b>1.8%</b>
	<b>Don't know</b>	<b>37</b>	<b>9.5%</b>
<b>Before moving to this home, where did you live?</b>	<b>Rural area</b>	<b>38</b>	<b>8.2%</b>
	<b>Capital city</b>	<b>323</b>	<b>69.5%</b>
	<b>Another city</b>	<b>104</b>	<b>22.4%</b>
<b>In your last home, what was your legal situation regarding that unit?</b>	<b>Owner</b>	<b>115</b>	<b>24.7%</b>
	<b>Under contract</b>	<b>1</b>	<b>0.2%</b>
	<b>Renting</b>	<b>288</b>	<b>61.9%</b>
	<b>Living with others without paying</b>	<b>51</b>	<b>11.0%</b>
	<b>Living in an abandoned house</b>	<b>0</b>	<b>0.0%</b>
	<b>Public dormitory</b>	<b>2</b>	<b>0.4%</b>
	<b>Homeless</b>	<b>0</b>	<b>0.0%</b>
	<b>Other</b>	<b>8</b>	<b>1.7%</b>

A large number of respondents, 210, said that they lost the use of their houses as a result of the 1986 earthquake. An additional 77 had their houses damaged. However, 156 said that they were not affected by the 1986 earthquake at all.

### **THE HOUSING UNIT AND SURROUNDING NEIGHBORHOOD**

When asked what they liked about their homes, 131 said “everything.” This was about twice as many responses as the next two ranked options, which were location and the fact that they owned their home. However, 55 respondents said they liked “nothing” about their units. When asked about what specifically worried them about their units, the roof was the most chosen option with 150 respondents saying they were concerned about it. However, 130 respondents said there was nothing about their units that worried them. The next most worrisome item was the quality of construction and measures to protect

against flooding following heavy rainfall. The worries lowest on the list were flooring and environmental pollution.

Almost 200 said that no improvements have been made to their homes, while 99 said they had replaced doors or windows. The next highest improvement made was adding extra rooms (95), while 56 members had replaced their roofs.

Among the things respondents liked about their neighborhoods, the availability of mass transportation topped the list with 146 responses. This was followed closely by low crime (132 responses) and by central location. A number of respondents (73) liked everything about their neighborhood. The items mentioned least often in this category were the neighbors and the climate.

When asked for things that worry them about their neighborhood, the most frequent response (128) was “nothing.” Of those that noted things that bothered them, the shortage of potable water was most cited (79 responses), followed by risk that accessibility to their building or neighborhood would be lost due to deterioration to roads or bridges caused by erosion or extreme weather events. Danger and crime were the next most mentioned items, followed by concern about contaminated waterways nearby and inadequate garbage collection. Percentages are not given for each response in Table B3 because multiple answers were solicited in several questions.

**Table B3: Ranked Responses (Number of responses)**

<b>How did the 1986 Earthquake affect you?</b>	<b>Destroyed my home</b>	<b>210</b>
	<b>Nothing/don't remember</b>	<b>156</b>
	<b>Damaged my home</b>	<b>77</b>
	<b>Psychological impact</b>	<b>15</b>
	<b>Lost personal effects</b>	<b>11</b>
	<b>Lost a family member</b>	<b>4</b>
	<b>Family member injured</b>	<b>3</b>
<b>What do you like about this house?</b>	<b>Everything</b>	<b>131</b>
	<b>Location</b>	<b>65</b>
	<b>That I own it</b>	<b>64</b>
	<b>Nothing</b>	<b>55</b>
	<b>Privacy</b>	<b>47</b>
	<b>House size</b>	<b>35</b>
	<b>Land area</b>	<b>23</b>
	<b>Comfortable</b>	<b>20</b>
<b>Accessibility</b>	<b>17</b>	
<b>What worries you about this house?</b>	<b>Roof (houses)</b>	<b>150</b>
	<b>Nothing</b>	<b>130</b>
	<b>Quality of construction/ materials/water infiltration</b>	<b>58</b>
	<b>Walls</b>	<b>47</b>
	<b>Interior space is too small</b>	<b>34</b>
	<b>High monthly payment</b>	<b>30</b>
	<b>Location</b>	<b>19</b>
	<b>Insecure/Vulnerable to criminals</b>	<b>13</b>
	<b>Plumbing</b>	<b>12</b>
	<b>Flooring</b>	<b>4</b>
<b>Environmental pollution</b>	<b>4</b>	
<b>What improvements have been made on this house?</b>	<b>None</b>	<b>197</b>
	<b>Replaced doors or windows</b>	<b>99</b>
	<b>Extra rooms</b>	<b>95</b>
	<b>Replaced roof</b>	<b>56</b>
	<b>Enlarged at least 1 room</b>	<b>55</b>
	<b>Dividing walls</b>	<b>24</b>
	<b>Added a second floor</b>	<b>15</b>
	<b>Replaced the flooring</b>	<b>10</b>
<b>Security grill work</b>	<b>9</b>	
<b>Name 3 things you like about this neighborhood</b>	<b>Mass transportation</b>	<b>146</b>
	<b>Low crime</b>	<b>132</b>
	<b>Central location</b>	<b>100</b>
	<b>Everything</b>	<b>73</b>
	<b>Quiet</b>	<b>69</b>
	<b>Basic services</b>	<b>65</b>
	<b>Green zone</b>	<b>58</b>
	<b>School nearby</b>	<b>55</b>
	<b>Nothing</b>	<b>50</b>
	<b>Neighbors</b>	<b>40</b>
	<b>Climate</b>	<b>28</b>

Name 3 things that worry you about this neighborhood		
	Nothing	128
	Potable water in short supply	79
	Risk of road or pedestrian accessibility to the community being lost	68
	Danger/risk	53
	Crime	49
	Contaminated river nearby	47
	Inadequate garbage collection	43
	Flooding	39
	Retaining walls	36
	Lack of play areas	19
	Lack of schools	17
	Everything	15
	Lack of street lights	13
	Poor quality materials in stairs/walkways	4

### DIFFERENCES BETWEEN CONDOMINIUMS AND SINGLE FAMILY HOMES

The differences between single-family home neighborhoods and condominium apartment buildings were significant for some of the topics reported upon by this survey. There was a lower response rate among condominium dwellers, with only 32.5 percent consenting to participate in the survey, versus 55 percent of single unit residents.

	Houses	Condos*
Number of houses visited	753	165
Percent interviewed	55%	32%
Percent of abandoned/uninhabited units	9%	13%
Percent of non-respondents	36%	56%

\*Total % is 101% due to rounding up

There are more renters in the condominium units than in the houses, but more people admit that they are squatters (5 percent) in the houses than in the condominium units (2 percent). Currently, 74 percent of condominium dwellers own their units. Interestingly, less than 10 percent of these condominium respondents had owned their previous home, so there was quite a dramatic shift in their status/poverty impact. Of the house owners, 27 percent had owned their previous homes, compared to 79 percent who currently do. A larger percentage of women in houses (41 percent) had property titles in their own names. Only 30 percent of condominium title holders responding were women. A larger percentage of people in houses had moved to the city from rural areas. Almost all condominium residents had always been city dwellers.

**Table B4: Responses to Homeownership Questions**

		House	Condo
<b>Did someone occupy this unit before you?</b>	<b>Yes</b>	32.5%	35%
	<b>No</b>	67.5%	65%
<b>What is your legal situation regarding this house?</b>	<b>Owner</b>	79%	74%
	<b>Under contract</b>	3%	
	<b>Renting</b>	13%	24%
	<b>Occupying an abandoned house/ squatter</b>	5%	2%
<b>If you own this unit, in whose name is the title?</b>	<b>Man</b>	49%	51%
	<b>Woman</b>	40.5%	30%
	<b>Both</b>	1.5%	4%
	<b>Don't know</b>	9%	15%
<b>Before moving to this home, where did you live?</b>	<b>Rural area</b>	9%	2%
	<b>Capital city</b>	69%	75%
	<b>Another city</b>	22%	23%
<b>In your last home, what was your legal situation regarding that unit?</b>	<b>Owner</b>	27%	9%
	<b>Under contract</b>	0.2%	
	<b>Renting</b>	60%	75%
	<b>Living with others without paying</b>	11%	8%
	<b>Living in an abandoned house</b>	0.0	
	<b>Public dormitory</b>	0.2%	2%
	<b>Homeless</b>	0.0	
	<b>Other</b>	1%	6%

On quality of life and living questions, respondents in both groups said “everything” most frequently when asked what they liked about their homes. The second most frequent response for condo dwellers was “nothing.” The surveyors reported that some project beneficiaries were very happy and others very unhappy with their current situation. They attributed both to the conditions where they are living, and also whether they feel that their current situation is better or worse than what they had before. The second most frequent response for house residents was “homeownership.” One householder, a single mother with two children, had been homeless on the streets after the earthquake, and she told the surveyors in great detail how much it meant to the children that they have a place to live of their own. “Location” was the third most frequent response for both groups.

When asked what worried them about their units, of 11 possible options, the house dwellers said the “roof” was what they worried most about in their units, followed by “nothing.” It could be seen that the houses had been provided with shoddy roofing material that allowed moisture to penetrate. Condo owners said “nothing” most

frequently. A concern for the quality of construction materials and flood-proofing measures was the second most frequent response for condo dwellers. This item was fourth for house dwellers.

The majority of both house and condo dwellers had not made improvements. But of those who had, the house dwellers had replaced doors and windows most frequently, while the condo dwellers had made internal divisions to create more rooms. The third most frequent improvement for house dwellers was adding additional rooms to increase the interior area, and for condo residents it was increasing the number of rooms, since they live in high rises.

Regarding their neighborhoods, survey respondents were asked what they liked best about where they lived. The house dwellers most frequently responded that they liked the access to mass transportation and the condo residents cited the central location as the most appreciated asset of their neighborhood. Low crime was the second most frequent response by both groups. Compared to the other neighborhoods not surveyed, crime was definitely lower in the respondents' neighborhoods. Condo inhabitants' third most cited response was "everything." Central location was the third most frequent response for the house respondents.

Both groups most frequently responded "nothing" when asked what worried them about their neighborhoods. Of those that did have concerns, lack of potable water was most often cited by the house residents and risk or danger was cited by the condo respondents. For house dwellers the next two most frequent worries were loss of access to the downtown as the result of floods or (usually rainstorm-related) loss of road infrastructure. For condo residents it was a lack of potable water, followed by a response of "everything."

Table B5

	<i>Houses</i>		<i>Condos</i>	
How did the 1986 Earthquake affect you?	Destroyed my home	179	Destroyed my home	31
	Nothing/Don't remember	137	Nothing/Don't remember	19
	Damaged my home	75	Damaged my home	2
	Psychological impact	13	Psychological impact	2
	Lost personal effects	11	Lost personal effects	0
	Lost a family member	4	Lost a family member	0
	Family member injured	3	Family member injured	0
What do you like about this house?	Everything	103	Everything	28
	That I own it	58	Nothing	16
	Location	56	Location	9
	Privacy	40	House size	7
	Nothing	39	Privacy	7
	House size	28	That I own it	6
	Land area	23	Accessibility	6
	Comfortable	17	Comfortable	3
Accessibility	11	Land area	0	
What worries you about this house?	Roof	140	Nothing	34
	Nothing	96	Quality of construction/ materials/ water infiltration	15
	Walls	44	Roof	10
	Quality of construction/ materials water infiltration	43	Interior space is too small	6
	Interior space is too small	28	Plumbing	4
	High monthly payment	27	Walls	3
	Location	18	High monthly payment	3
	Insecure/vulnerable to criminals	11	Insecure/vulnerable to criminals	2
	Plumbing	8	Flooring	1
	Environmental pollution	4	Location	1
	Flooring	3	Environmental pollution	0
What improvements have been made on this house?	None	151	None	46
	Replaced doors or windows	89	Extra rooms	15
	Extra rooms	80	Enlarged at least 1 rooms	12
	Replaced roof	53	Added a second floor	10
	Enlarged at least one room	43	Replaced doors or windows	10
	Dividing walls	23	Replaced the roof	3
	Security grill work	7	Replaced flooring	3
	Replaced the flooring	7	Security grill work	2
	Added a second floor	5	Dividing walls	1



	<i>Houses</i>		<i>Condos</i>	
Name 3 things you like about this neighborhood	Mass transportation	134	Central location	24
	Low crime	110	Low crime	22
	Central location	76	Everything	19
	Quiet	65	Basic services	17
	Everything	54	School nearby	14
	Basic services	48	Green zone	13
	Green zone	45	Nothing	12
	School nearby	41	Mass transportation	12
	Nothing	38	Quiet	4
	Neighbors	38	Neighbors	2
Climate	27	Climate	1	
Name 3 things that worry you about this neighborhood	Nothing	109	Nothing	19
	Potable water in short supply	75	Danger/risk	7
	Risk of road or pedestrian accessibility to the community being lost	67	Retaining walls	5
	Crime	49	Potable water in short supply	4
	Contaminated river nearby	47	Everything	4
	Inadequate garbage collection	42	Crime	4
	Danger/risk	42	Flooding	2
	Flooding	37	Poor quality materials in stairs/walkways	2
	Retaining walls	31	Lack of play areas	2
	Lack of Schools	17	Risk of road or pedestrian accessibility to the community being lost	1
	Lack of play areas	17	Inadequate garbage collection	1
	Lack of street lights	13	Contaminated river nearby	0
	Everything	11	Lack of street lights	0
	K. Poor Quality Materials in stairs/walkways	2	Lack of schools	0

### RESPONSES BY INDIVIDUAL COMMUNITY

Shown below are the complete results from each neighborhood. In the condominium buildings, all units were approached. In the single-unit neighborhoods, the percentage of units which the survey team attempted to interview ranged from about a third to 90 percent. Of course not all those approached consented to be interviewed. The percentage interviewed ranged from 23 percent for Condo Marconi to 67 percent for Los Naranjos. The percentage of respondents who owned their units ranged from as high as 90 percent for Condo San Miguelito to as low as 37.5 percent for Condo America. Four of the neighborhoods had no squatters among the respondents, but two had squatters in about 13 percent of the units visited. The percentage of property titles that were held by men ranged from 76 percent in one neighborhood, to 27 percent in another. In the community with a lower percentage of men as title holders, a third were in the name of both the man and woman of the household. In one condominium community, Condo Marconi, title holders were exactly half male and half female. The percentage of units

occupied previously by someone else ranged from 20 percent to 44 percent. Of the condos, only one condo, Condo America, had residents who had moved there from rural areas. The vast majority of the condo residents were from the capital city. In the single-unit neighborhoods, those formerly from rural areas ranged from 4 percent to almost 11 percent. The percentage of respondents who had owned their previous homes before occupying project-built units ranged from 7 percent in Condo El Bosque to just over 35 percent in Bosque de Prusia, a single-family neighborhood. Most had previously been renters, with one condominium having 90 percent of respondents having rented previously. On the lower end, 47 percent of the Bosque de Prusia neighborhood respondents had previously been renters.

The most frequent response for all but two of the communities when asked how the 1986 earthquake had affected them was “loss of their home.” The second most frequent response for all the neighborhoods was “nothing/don’t remember.” Damage to their home was the third most frequent response in all the communities but one.

When asked what they liked about their home, “everything” was the most frequent response from half of the communities. For three other communities, the location was what they liked best and in one of the communities, Condo America, the most frequent response was that they liked nothing about their home. When asked what worried them about their homes, four of the six single-unit neighborhoods cited the roof most frequently, while one cited the poor quality of workmanship and materials. Of the remaining communities, the most frequent response was that they had no worries about their home. The respondents were asked what improvements they had made on their homes. All but two of the communities responded most frequently that they had made no improvements. Of the remaining communities, room enlargement and adding a room were the most frequent responses.

When asked what they liked about their neighborhood, the most frequent response varied. Three communities most frequently cited the central location. “Everything,” mass transit, and low crime were each cited most frequently by two communities respectively. Quietness was the factor most frequently cited in the last community, Residencia Europa.

Respondents in six of the ten neighborhoods said “nothing” when asked what worried them most about their neighborhoods. Two of the condominium apartment respondents cited high crime and one of the neighborhoods cited poor garbage pick-up, while the last one, Los Almendros, had most respondents worried about a risk of being cut off (by flooding, for instance). Among other frequent responses was river contamination, and lack of potable water.

### El Salvador Survey: Responses from Individual Neighborhoods

General interview info	Condo/casa	Bosque de Prusia	Los Almendros	Los Naranjos	Monte Carmelo	Res. Europa	Resid San Lucas	Condo America	Condo el Bosque	Condo Marconi	Condo San Miguelito
Number of houses visited	casa	103	149	121	146	129	105	60	33	48	22
Percentage interviewed	casa	43.7%	64.4%	66.9%	47.9%	51.2%	51.4%	30.0%	42.4%	22.9%	45.5%
Percentage of non-respondents (sum of next two)	casa	56.3%	35.6%	33.1%	52.1%	48.8%	48.6%	70.0%	57.6%	77.1%	54.5%
Percentage of abandoned/uninhabited units	casa	7.8%	4.7%	14.9%	11.0%		18.1%	6.7%	21.2%	16.7%	9.1%
Percentage of inhabited but non-respondent units	casa	48.5%	30.9%	18.2%	41.1%	49.0%	30.5%	63.3%	36.4%	60.4%	54.5%
1. Alguien ocupo la casa antes de usted?	si	35.6%	38.5%	37.0%	30.0%	19.7%	31.5%	44.4%	35.7%	33.3%	20.0%
	no	64.4%	61.5%	63.0%	70.0%	80.3%	68.5%	55.6%	64.3%	66.7%	80.0%
2. Cual es su situacion referente a esta casa?	propietario	79.5%	86.6%	75.3%	77.1%	46.2%	81.8%	37.5%	84.6%	72.7%	90.0%
	con promesa de venta	0.0%	5.2%	3.7%	0.0%	7.7%	1.8%	0.0%	0.0%	0.0%	0.0%
	alquilando	20.5%	7.2%	16.0%	10.0%	46.2%	10.9%	50.0%	15.4%	27.3%	10.0%
	ocupando casa abandonada	0.0%	1.0%	4.9%	12.9%		5.5%	12.5%	0.0%	0.0%	0.0%
3. Si es dueno, a nombre de quien esta la escritura?	hombre	47.2%	51.8%	50.0%	75.9%	27.3%	45.5%	33.3%	66.7%	50.0%	66.7%
	mujer	50.0%	42.2%	46.7%	22.2%	37.9%	47.7%	16.7%	33.3%	50.0%	33.3%
	ambos	2.8%	2.4%	0.0%	1.9%	1.5%	0.0%	11.1%	0.0%	0.0%	0.0%
	no se	0.0%	3.6%	3.3%	0.0%	33.3%	6.8%	38.9%	0.0%	0.0%	0.0%
4. Antes de pasar a esta casa, donde vivio?	campo	4.4%	10.4%	7.4%	10.0%	10.6%	9.3%	5.6%	0.0%	0.0%	0.0%
	ciudad capital	68.9%	64.6%	75.3%	62.9%	66.7%	75.9%	61.1%	92.9%	81.8%	70.0%

	Bosque de Prusia	Los Almendros	Los Naranjos	Monte Carmelo	Res. Europa	Resid San Lucas	Condo America	Condo el Bosque	Condo Marconi	Condo San Miguelito
otra ciudad	26.7%	25.0%	17.3%	27.1%	22.7%	14.8%	33.3%	7.1%	18.2%	30.0%
<b>5. En su anterior vivienda, cual era su situacion?</b>										
propio	35.6%	17.7%	27.2%	28.6%	25.8%	33.3%	11.1%	7.1%	9.1%	10.0%
con promesa de venta	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
alquilan	46.7%	71.9%	54.3%	64.3%	60.6%	53.7%	61.1%	85.7%	72.7%	90.0%
vivio con otros sin pagar	15.6%	10.4%	18.5%	4.3%	10.6%	9.3%	11.1%	0.0%	18.2%	0.0%
ocupando casa abandonada	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
dormitorio publico	0.0%	0.0%		0.0%	0.0%	1.9%	0.0%	7.1%	0.0%	0.0%
sin casa	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
otra	0.0%	0.0%		2.9%	3.0%	1.9%	16.7%	0.0%	0.0%	0.0%

### El Salvador Survey: Ranked Response Questions

#### 6. Como le afecto el terremoto de 1986?

<i>Bosque Prusia</i>	<i>Los Almendros</i>	<i>Los Naranjos</i>	<i>Monte Carmelo</i>	<i>Res. Europa</i>	<i>San Lucas</i>
G. en nada/no se acuerda	24 B. perdida de vivienda	51 B. perdida de vivienda	40 B. perdida de vivienda	33 B. perdida de vivienda	31 G. en nada/no se acuerda
A. danos a la vivienda	13 G. en nada/no se acuerda	22 G. en nada/no se acuerda	28 G. en nada/no se acuerda	23 G. en nada/no se acuerda	18 B. perdida de vivienda
B. perdida de vivienda	5 A. danos a la vivienda	20 A. danos a la vivienda	11 A. danos a la vivienda	11 A. danos a la vivienda	8 A. danos a la vivienda
C. perdida de efectos personales	3 F. dano psicologico	7 C. perdida de efectos personales	1 F. dano psicologico	1 C. perdida de efectos personales	2 F. dano psicologico
F. dano psicologico	2 C. perdida de efectos personales	5 D. perdida de un familiar	1 C. perdida de efectos personales	0 D. perdida de un familiar	0 D. perdida de un familiar
D. perdida de un familiar	0 E. heridas	3 F. dano psicologico	1 D. perdida de un familiar	0 E. heridas	0 C. perdida de efectos personales

#### 7. Que es lo que le gusta de esta casa?

<i>Bosque Prusia</i>	<i>Los Almendros</i>	<i>Los Naranjos</i>	<i>Monte Carmelo</i>	<i>Res. Europa</i>	<i>San Lucas</i>
A. ubicacion	16 E. todo	33 E. todo	24 A. ubicacion	16 E. todo	15 H. accesibilidad
D. es propio	15 I. Privacidad	16 D. es propio	14 E. todo	16 A. ubicacion	10 B. tamano de casa
E. todo	13 B. tamano de casa	13 A. ubicacion	13 D. es propio	14 D. es propio	9 E. todo
G. comodo/acogedor	7 C. tamano de terreno	9 F. nada	8 I. Privacidad	10 F. nada	8 D. es propio
F. nada	6 F. nada	8 I. Privacidad	5 C. tamano de terreno	8 G. comodo/acogedor	5 F. nada
I. Privacidad	5 H. accesibilidad	7 B. tamano de casa	4 F. nada	8 I. Privacidad	3 I. Privacidad
C. tamano de terreno	2 D. es propio	5 C. tamano de terreno	3 B. tamano de casa	6 B. tamano de casa	2 A. ubicacion
B. tamano de casa	1 A. ubicacion	1 G. comodo/acogedor	0 G. comodo/acogedor	4 C. tamano de terreno	1 C. tamano de terreno
H. accesibilidad	0 G. comodo/acogedor	1 H. accesibilidad	0 H. accesibilidad	0 H. accesibilidad	1 G. comodo/acogedor

## 8. Que es lo que le preocupa de esta casa?

<i>Bosque Prusia</i>	<i>Los Almendros</i>	<i>Los Naranjos</i>	<i>Monte Carmelo</i>	<i>Res. Europa</i>	<i>San Lucas</i>
I. Nada	24 A. techo (casas)	29 A. techo (casas)	22 A. techo (casas)	42 A. techo (casas)	C. calidad de construcción/materiales/filtración 8 de agua
A. techo (casas)	22 I. Nada	21 I. Nada	18 I. Nada	18 I. Nada	15 F. inseguridad/ entrada de ajenos
G. espacio interior muy pequeño	12 B. paredes	C. calidad de construcción/materiales/filtración de agua	4 B. paredes	9 C. calidad de construcción/materiales/filtración de agua	9 G. espacio interior muy pequeño
B. paredes	7 E. cuota alta	15 E. cuota alta	3 J. ubicación	8 G. espacio interior muy pequeño	8 J. ubicación
J. ubicación	3 C. calidad de construcción/materiales/filtración de agua	13 G. espacio interior muy pequeño	3 C. calidad de construcción/materiales/filtración de agua	7 B. paredes	7 A. techo (casas)
C. calidad de construcción/materiales/filtración de agua	2 F. inseguridad/entrada de ajenos	5 B. paredes	1 E. cuota alta	5 E. cuota alta	4 B. paredes
D. piso	0 G. espacio interior muy pequeño	3 H. plomería	1 H. plomería	4 F. inseguridad/entrada de ajenos	4 D. piso
E. cuota alta	0 J. ubicación	2 K. contaminación del medio ambiente	1 F. inseguridad/entrada de ajenos	1 J. ubicación	4 E. cuota alta
F. inseguridad/entrada de ajenos	0 D. piso	0 D. piso	0 G. espacio interior muy pequeño	1 D. piso	3 H. plomería
H. plomería	0 H. plomería	0 F. inseguridad/entrada de ajenos	0 D. piso	0 H. plomería	3 I. Nada
K. contaminación del medio ambiente	0 K. contaminación del medio ambiente	0 J. ubicación	0 K. contaminación del medio ambiente	0 K. contaminación del medio ambiente	3 K. contaminación del medio ambiente

## 9. Que mejoras le han hecho a la casa?

<i>Bosque Prusia</i>	<i>Los Almendros</i>	<i>Los Naranjos</i>	<i>Monte Carmelo</i>	<i>Res. Europa</i>	<i>San Lucas</i>
E. ampliación de cuartos	22 H. nada/no	35 H. nada/no	32 H. nada/no	40 A. Cuartos extras	18 H. nada/no
H. nada/no	21 G. cambio de puerta/ventana/balcon, instalación de defensas	32 A. Cuartos extras	19 G. cambio de puerta/ventana/balcon, instalación de defensas	22 H. nada/no	17 G. cambio de puerta/ventana/balcon, instalación de defensas
F. cambio de techo	10 F. cambio de techo	G. cambio de puerta/ventana/balcon, instalación de defensas	13 A. Cuartos extras	21 G. cambio de puerta/ventana/balcon, instalación de defensas	12 A. Cuartos extras
A. Cuartos extras	9 A. Cuartos extras	13 B. muros divisores	8 F. cambio de techo	8 F. cambio de techo	9 B. muros divisores
G. cambio de puerta/ventana/balcon, instalación de defensas	6 E. ampliación de cuartos	10 F. cambio de techo	4 B. muros divisores	4 E. ampliación de cuartos	7 C. verjas
B. muros divisores	5 I. Cambio de piso	4 C. verjas	2 E. ampliación de cuartos	2 B. muros divisores	5 D. segunda planta
C. verjas	4 B. muros divisores	1 E. ampliación de cuartos	2 I. Cambio de piso	1 C. verjas	1 E. ampliación de cuartos

D. segunda planta	4 C. verjas	0 D. segunda planta	0 C. verjas	0 D. segunda planta	1 F. cambio de techo	0
I. Cambio de piso	1 D. segunda planta	0 I. Cambio de piso	0 D. segunda planta	0 I. Cambio de piso	1 I. Cambio de piso	0

### 10. Mencione 3 cosas que le gusta de este barrio

<b>Bosque Prusia</b>		<b>Los Almendros</b>		<b>Los Naranjos</b>		<b>Monte Carmelo</b>		<b>Res. Europa</b>		<b>San Lucas</b>	
C. transporte colectivo	23 I. Poca delincuencia	44 A. todo	20 C. transporte colectivo	40 H. apartado de ruidos	22 G. centrico	6					
K. el clima	18 C. transporte colectivo	37 C. transporte colectivo	18 I. Poca delincuencia	34 C. transporte colectivo	16 H. apartado de ruidos	4					
H. apartado de ruidos	16 G. centrico	22 D. servicios basicos	16 G. centrico	19 E. escuela cerca	13 A. todo	1					
G. centrico	15 F. los vecinos	21 E. escuela cerca	12 J. zona verde	13 I. Poca delincuencia	12 B. nada	1					
A. todo	14 J. zona verde	21 F. los vecinos	6 H. apartado de ruidos	12 D. servicios basicos	10 D. servicios basicos	1					
I. Poca delincuencia	14 B. nada	14 H. apartado de ruidos	6 A. todo	10 G. centrico	10 E. escuela cerca	1					
D. servicios basicos	11 D. servicios basicos	6 I. Poca delincuencia	6 B. nada	9 B. nada	8 K. el clima	1					
E. escuela cerca	8 H. apartado de ruidos	5 J. zona verde	6 E. escuela cerca	7 A. todo	7 C. transporte colectivo	0					
F. los vecinos	5 A. todo	2 B. nada	4 D. servicios basicos	4 K. el clima	6 F. los vecinos	0					
J. zona verde	3 E. escuela cerca	0 G. centrico	4 F. los vecinos	4 F. los vecinos	2 I. Poca delincuencia	0					
B. nada	2 K. el clima	0 K. el clima	1 K. el clima	1 J. zona verde	2 J. zona verde	0					

### 11. Mencione 3 cosas que le preocupa de este barrio

<b>Bosque Prusia</b>		<b>Los Almendros</b>		<b>Los Naranjos</b>		<b>Monte Carmelo</b>		<b>Res. Europa</b>		<b>San Lucas</b>	
H. nada	14 A. riesgo de incomunicacion	55 H. nada	26 H. nada	23 H. nada	27 D. basura (servicios)	14					
E. las maras/delincuencia	13 C. mal servicio de agua potable	45 B. rios contaminados	22 J. muros de contencion	11 G. aguas lluvias en pasajes	22 H. nada	14					
B. rios contaminados	7 M. Crime	24 C. mal servicio de agua potable	14 E. las maras/delincuencia	6 J. muros de contencion	15 A. riesgo de incomunicacion	12					
C. mal servicio de agua potable	6 L. Lack of Schools	16 E. las maras/delincuencia	12 B. rios contaminados	6 M. Crime	7 B. rios contaminados	10					
D. basura (servicios)	6 G. aguas lluvias en pasajes	10 D. basura (servicios)	11 C. mal servicio de agua potable	5 D. basura (servicios)	6 N. Lack of play areas	9					
F. alumbrado publico	4 E. las maras/delincuencia	5 M. Crime	9 D. basura (servicios)	4 B. rios contaminados	2 E. las maras/delincuencia	5					
M. Crime	4 H. nada	5 F. alumbrado publico	7 N. Lack of play areas	K. Poor Quality Materials in stairs/walkways	2 C. mal servicio de agua potable	4					
I. Todo	3 I. Todo	3 J. muros de contencion	4 M. Crime	2 N. Lack of play areas	2 M. Crime	3					
G. aguas lluvias en pasajes	1 D. basura (servicios)	1 N. Lack of play areas	4 I. Todo	2 C. mal servicio de agua potable	1 G. aguas lluvias en pasajes	1					
A. riesgo de incomunicacion	0 F. alumbrado publico	1 G. aguas lluvias en pasajes	1 G. aguas lluvias en pasajes	2 E. las maras/delincuencia	1 I. Todo	1					
J. muros de contencion	0 B. rios contaminados	0 I. Todo	1 L. Lack of Schools	1 F. alumbrado publico	1 J. muros de contencion	1					
K. Poor Quality Materials	0 J. muros de contencion	0 A. riesgo de incomunicacion	K. Poor Quality Materials in stairs/walkways	0 I. Todo	1 F. alumbrado publico	0					

#### 4. Como le afecto el terremoto de 1986?

	<i>Condo. America</i>	<i>Condo. El Bosque</i>	<i>Condo Marconi</i>	<i>Condo. San Miguelito</i>
B. perdida de vivienda		10 B. perdida de vivienda	10 B. perdida de vivienda	6 B. perdida de vivienda
G. en nada/no se acuerda	9	F. dano psicologico	2 G. en nada/no se acuerda	3 G. en nada/no se acuerda
A. danos a la vivienda	0	G. en nada/no se acuerda	2 A. danos a la vivienda	1 A. danos a la vivienda
C. perdida de efectos personales	0	A. danos a la vivienda	1 C. perdida de efectos personales	0 C. perdida de efectos personales
D. perdida de un familiar	0	C. perdida de efectos personales	0 D. perdida de un familiar	0 D. perdida de un familiar
E. heridas	0	D. perdida de un familiar	0 E. heridas	0 E. heridas

#### 7. Que es lo que le gusta de esta casa?

	<i>Condo. America</i>	<i>Condo. El Bosque</i>	<i>Condo Marconi</i>	<i>Condo. San Miguelito</i>
F. nada	7	E. todo	5 A. ubicacion	4 E. todo
E. todo	4	H. accesibilidad	3 E. todo	3 B. tamaño de casa
A. ubicacion	2	F. nada	2 I. Privacidad	2 F. nada
D. es propio	1	A. ubicacion	0 D. es propio	1 D. es propio
G. comodo/acogedor	1	B. tamaño de casa	0 F. nada	1 I. Privacidad
I. Privacidad	1	C. tamaño de terreno	0 G. comodo/acogedor	1 A. ubicacion
B. tamaño de casa	0	D. es propio	0 B. tamaño de casa	0 H. accesibilidad
C. tamaño de terreno	0	G. comodo/acogedor	0 C. tamaño de terreno	0 G. comodo/acogedor
H. accesibilidad	0	I. Privacidad	0 H. accesibilidad	0 C. tamaño de terreno



### 8. Que es lo que le preocupa de esta casa?

	<b>Condo. America</b>		<b>Condo. El Bosque</b>		<b>Condo Marconi</b>		<b>Condo. San Miguelito</b>	
C. calidad de construccion/materiales/filtracion de agua	8	A. techo (casas)	3	I. Nada	4	I. Nada	26	
B. paredes	3	C. calidad de construccion/materiales/filtracion de agua	3	C. calidad de construccion/materiales/filtracion de agua	3	A. techo (casas)	5	
I. Nada	2	E. cuota alta	2	A. techo (casas)	2	G. espacio interior muy pequeno	4	
E. cuota alta	1	I. Nada	2	H. plomeria	2	F. inseguridad/entrada de ajenos	2	
G. espacio interior muy pequeno	1	G. espacio interior muy pequeno	1	D. piso	1	H. plomeria	2	
J. ubicacion	1	B. paredes	0	B. paredes	0	C. calidad de construccion/materiales/filtracion de agua	1	
A. techo (casas)	0	D. piso	0	E. cuota alta	0	B. paredes	0	
D. piso	0	F. inseguridad/entrada de ajenos	0	F. inseguridad/entrada de ajenos	0	D. piso	0	
F. inseguridad/entrada de ajenos	0	H. plomeria	0	G. espacio interior muy pequeno	0	E. cuota alta	0	
H. plomeria	0	J. ubicacion	0	J. ubicacion	0	J. ubicacion	0	
K. contaminacion del medio ambiente	0	K. contaminacion del medio ambiente	0	K. contaminacion del medio ambiente	0	K. contaminacion del medio ambiente	0	

### 9. Que mejoras le han hecho a la casa?

	<b>Condo. America</b>		<b>Condo. El Bosque</b>		<b>Condo Marconi</b>		<b>Condo. San Miguelito</b>	
H. nada/no	14	H. nada/no	8	H. nada/no	8	H. nada/no	16	
E. ampliacion de cuartos	2	E. ampliacion de cuartos	2	G. cambio de puerta/ventana /balcon, instalacion de defensas	5	A. Cuartos extras	14	
G. cambio de puerta/ventana/balcon, instalacion de defensas	2	G. cambio de puerta/ventana/balcon, instalacion de defensas	1	I. Cambio de piso	2	D. segunda planta	10	
A. Cuartos extras	0	A. Cuartos extras	0	A. Cuartos extras	1	E. ampliacion de cuartos	8	
B. muros divisores	0	B. muros divisores	0	B. muros divisores	1	F. cambio de techo	3	
C. verjas	0	C. verjas	0	C. verjas	0	C. verjas	2	
D. segunda planta	0	D. segunda planta	0	D. segunda planta	0	G. cambio de puerta/ ventana/balcon, instalacion de defensas	2	
F. cambio de techo	0	F. cambio de techo	0	E. ampliacion de cuartos	0	I. Cambio de piso	1	

I. Cambio de piso	0	I. Cambio de piso	0	F. cambio de techo	0	B. muros divisores	0
<b>10. Mencione 3 cosas que le gusta de este barrio</b>							
<b>Condo. America</b>				<b>Condo. El Bosque</b>			
A. todo	6	G. centrico	6	G. centrico	6	G. centrico	16
B. nada	5	B. nada	3	A. todo	3	A. todo	13
G. centrico	2	A. todo	2	E. escuela cerca	2	E. escuela cerca	12
H. apartado de ruidos	2	D. servicios basicos	2	I. Poca delincuencia	2	I. Poca delincuencia	11
I. Poca delincuencia	2	I. Poca delincuencia	1	D. servicios basicos	1	D. servicios basicos	10
E. escuela cerca	1	J. zona verde	1	H. apartado de ruidos	1	H. apartado de ruidos	8
C. transporte colectivo	0	C. transporte colectivo	0	C. transporte colectivo	0	C. transporte colectivo	7
D. servicios basicos	0	E. escuela cerca	0	F. los vecinos	0	F. los vecinos	4
F. los vecinos	0	F. los vecinos	0	B. nada	0	F. los vecinos	1
J. zona verde	0	H. apartado de ruidos	0	J. zona verde	0	K. el clima	1
K. el clima	0	K. el clima	0	K. el clima	0	H. apartado de ruidos	0
<b>11. Mencione 3 cosas que le preocupa de este barrio</b>							
<b>Condo. America</b>				<b>Condo. El Bosque</b>			
H. nada	5	H. nada	5	H. nada	8	E. las maras/delincuencia	3
C. mal sercicio de agua potable	2	C. mal sercicio de agua potable	2	C. mal sercicio de agua potable	1	J. muros de contencion	3
I. Todo	2	J. muros de contencion	2	J. muros de contencion	1	H. nada	2
K.Poor Quality Materials in stairs/walkways	1	K.Poor Quality Materials in stairs/walkways	1	G. aguas lluvias en pasajes	1	G. mal sercicio de agua potable	1
M.Crime	1	M.Crime	1	N.Lack of play areas	2	D. basura (servicios)	1
A. riesgo de incomunicacion	0	A. riesgo de incomunicacion	0	A. riesgo de incomunicacion	1	I. Todo	1
B. rios contaminados	0	B. rios contaminados	0	I. Todo	1	A. riesgo de incomunicacion	0
D. basura (servicios)	0	D. basura (servicios)	0	B. rios contaminados	0	B. rios contaminados	0
E. las maras/delincuencia	0	E. las maras/delincuencia	0	C. mal sercicio de agua potable	0	F. alumbrado publico	0
F. alumbrado publico	0	F. alumbrado publico	0	D. basura (servicios)	0	G. aguas lluvias en pasajes	0
G. aguas lluvias en pasajes	0	G. aguas lluvias en pasajes	0	F. alumbrado publico	0	J. muros de contencion	0
J. muros de contencion	0	I. Todo	0	K.Poor Quality Materials in stairs/walkways	0	K.Poor Quality Materials in stairs/walkways	0
<b>Condo. San Miguelito</b>							
9 I. Poca delincuencia	16			4 E. las maras/delincuencia	3		
3 D. servicios basicos	13			4 H. nada	3		
3 J. zona verde	12			3 M.Crime	2		
3 C. transporte colectivo	11			2 C. mal sercicio de agua potable	1		
2 E. escuela cerca	10			2 D. basura (servicios)	1		
2 A. todo	8			1 I. Todo	1		
1 G. centrico	7			1 A. riesgo de incomunicacion	0		
1 B. nada	4			0 B. rios contaminados	0		
0 F. los vecinos	1			0 F. alumbrado publico	0		
0 K. el clima	1			0 G. aguas lluvias en pasajes	0		
0 H. apartado de ruidos	0			0 J. muros de contencion	0		
				0 K.Poor Quality Materials in stairs/walkways	0		

**Attachment: Survey Instrument**

Colonia: \_\_\_\_\_

Pasaje: \_\_\_\_\_

1. ¿Alguien ocupó la casa antes de usted?  SI  NO

2. ¿Cuál es su situación referente a esta casa?

 Propietario  Con promesa de venta  Alquilando  Ocupando casa abandonada Otra \_\_\_\_\_

3. ¿Si es dueño, a nombre de quién está la escritura?

 Hombre  Mujer  Ambos  No sé

4. ¿Cómo le afectó el terremoto de 1986? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. ¿Antes de pasar a esta casa, dónde vivió?

 En el campo  En la ciudad capital  Otra ciudad

6. ¿En su anterior vivienda, cuál era su situación?

 Propietario  Con promesa de venta  Alquilando  Vivía con otros, sin pagar Ocupando casa abandonada  Dormitorio público  Sin casa Otra \_\_\_\_\_

7. ¿Qué es lo que le gusta de esta casa? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. ¿Qué es lo que le preocupa de esta casa? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

9. ¿Qué mejoras le han hecho a la casa? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. Mencione tres cosas que le gusta de este barrio:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

11. Mencione tres cosas que le preocupa de este barrio:

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

## **Annex C. Borrower Comments**

Helen Phillip  
O:\URBAN\Ron\El Salvador Earthquake\Audit El Salvador March 30.doc  
April 1, 2004 10:10 AM