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A.I.D. EVALUATION SUMMARY - PART I

1. BEFORE FILLING OUT THIS FORM, READ THE ATTACHE. INSTRUCTIONS.
2. USE LETTER QUALITY TYPE, NOT DOT MATRIX TYPE

IDENTIFICATION DATA

A. Reporting A.I.D. Unit:

Mission or AID/W Office IRD/ERD
(ES# _____)

B. Was Evaluation Scheduled In Current FY Annual Evaluation Plan?
Yes [X] Slipped [ ] Ad Hoc [ ]
Evaluation Plan Submission Date: FY ___ Q ___

C. Evaluation Timing
Interim [ ] Final [X]
Ex Post [ ] Other [ ]

D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)

Project No.	Project /Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligate to Date (000)
519-0333	Earthquake Reconstruction	87	4/93	$98,000	$98,000

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director — Action(s) Required	Name of Officer Responsible for Action	Date Action to be Completed
None - No Actions Recommended		

(Attach extra sheet if necessary)

APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation: (Month) 4 (Day) 28 (Year) 93

G. Approvals of Evaluation Summary And Action Decision

	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
Name (Typed)				
Signature				

ABSTRACT

H. Evaluation Abstract (Do not exceed the space provided)

The earthquake that devastated San Salvador on October 10, 1986, in addition to killing some 1,500 people and injuring 20,000 knocked out the cities telecommunications and electric services as well as a large part of its water and sewerage systems, roads and bridges. Thousands of homes and hundreds of schools were destroyed or rendered unusable as were 300 of the city's largest buildings including most of its hospitals. The major damages affected the poorest areas of the city. Immediate post earthquake assistance helped the GOES to reestablish public services and open the city to traffic and, through use of temporary structures, to allow a number of schools and hospitals to get back into operation.

The purpose of the Earthquake Reconstruction Project was to assist the Government and private sector of El Salvador to reconstruct and rehabilitate housing, vital infrastructure and businesses as well as restore basic service to persons, particularly those of lower income, affected by the earthquake. Project implementation was heavily impacted by an active guerrilla war, inflation rates that frequently ran over 20%, a deteriorating colon (which went from 5:U.S. $1 to 8.7:1) and certain GOES administrative procedures which may have caused delays of up to 50% in the execution of some construction contracts. Administration was carried out through 9 ministerial or ministerial-level agencies of the GOES plus 4 PVO's; many more GOES agencies were involved in some aspects of most operations.

This final evaluation was carried out by a 3-person team fielded by Development Associates, Inc., a private contractor. During 5 weeks in El Salvador, the team visited over 30 project sites and interviewed key personnel of all GOES agencies that had been involved in Project Implementation. They also interviewed representatives of private sector institutions involved in implementation as well as a large cross section of identifiable project beneficiaries, including home owners in rebuilt and newly constructed housing and vendors in two reconstructed markets. Principal findings and conclusions were:

o The Project exceeded its goals for rehabilitation/reconstruction of physical assets destroyed or damaged in the earthquake. It also succeeded in targeting a major part of the Project on lower income groups.

o Although the Project exceeded its original PACD, that target was unrealistic, even as extended when additional funds were put into the Project a year after the original agreement. Completion of the work undertaken in slightly less than 6 years would have to have been counted as a highly successful effort under any circumstances. Under the circumstances that pertained, the accomplishment was outstanding.

o Both Mission organization and the implementation arrangements put into place for this Project should be studied closely by AID as a model for projects of this type.

COSTS

Evaluation Costs

1. Evaluation Team Name	Affiliation	Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. $)	Source of Funds
David Lazar	- Senior Management Consultant/Team Leader	HNE-0000-I-00-2100-00, Delviery Order No.01	$ 62,971	Project 519-0333
Warren Lane	- Senior Management Consultant			
Lewis B.Taylor	- Senior Management Consultant/Engineer			

Mission/Office Professional Staff Person-Days (Estimate)	1. Borrower/Grantee Professional Staff Person-Days (Estimate)

A.I.D. EVALUATION SUMMARY - PART II

SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)
Address the following items:

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

Mission or Office:	Date This Summary Prepared:	Title And Date Of Full Evaluation Report:
IRD/ERD	4-21-93	Earthquake Reconstruction Project 3/4/93 - 4/6/93

The evaluation was carried out by a three-person team that visited El Salvador from March 3 to April 6, 1993. The team reviewed all relevant Mission documents covering the Project, interviewed individually or in focus groups key representatives of all GOES agencies and private sector groups involved in any way with implementation of the Project, including PVO's, plus a broad array of Project beneficiaries. They visited over 30 sites at which rehabilitation/reconstruction work was carried out and also undertook a two-hour helicopter overflight of the area affected by the earthquake to get a more precise idea of the geographical extent and layout of earthquake damage and Project activities.

Purpose of Activity Evaluated:

The Project purpose was "to assist the Government of El Salvador to reconstruct and rehabilitate housing, vital infrastructure and businesses as well as restore basic services to persons, particularly those of lower income, affected by the October 10 earthquake."

Specifically, the Project aimed at the repair or reconstruction of homes, businesses, basic services and infrastructure in metropolitan zones most seriously affected by the earthquake. There were two credit components: one assisted families with credit for individual home repairs and repair and reconstruction of multi-family units. The other provided credit to help revitalize small and medium enterprises in the commercial sector as well as for repairs to private educational and medical facilities which were seriously damaged by the earthquake. Direct financing was programmed for urgently needed construction of public schools to replace those destroyed, for the repair and improvement of the city's major lifeline - the San Salvador highway to Comalapa airport — which received all major emergency flights responding to the earthquake, and for repair/reconstruction of selected health facilities not financed by other donors. In addition, funding was allocated for repair to two key municipal markets and for emergency equipment of the water authority. Also, five resettlement projects for approximately 5,000 families, for whom return to their former locations was impossible, were to be completed by provision of infrastructure and minimum housing and/or building materials provided via credit. A final element was financing of project support requirements of one key GOES implementing agency and the Mission to assure adequate capacity to manage this extensive program.

Findings and Conclusions:

The main physical accomplishments of the Project were: more than 13,000 housing units constructed or repaired on 103 sites in and around San Salvador; 8 major public markets constructed and 6 others reconstructed or rehabilitated; over 2,200 classrooms and 800 administrative and support areas constructed in 235 schools; 26,604 items of school furniture and equipment purchased; 7 public health and medical facilities reconstructed or rehabilitated and furnished with basic medical equipment; 24 kilometers of highway reconstructed, and credit extended for the reconstruction/rehabilitation of 4 large private schools, 3 small businesses and 20 private medical facilities. Almost 40% of the funds expended on these facilities - those used for the various housing components of the Project - were targeted on lower income groups.

These accomplishments required the management, over the life of the project, of 588 contracts or other procurement actions carried out by or through nine ministries or ministerial-level organizations of the Salvadoran government (and involving the participation in some form of many more), the City of San Salvador and four Private Voluntary Organizations.

The evaluation team found that this would have represented a remarkable accomplishment under any circumstances. But it concluded that under the circumstances that pertained during most of the period of project implementation, this Project had to be rated as "Outstanding." Among those circumstances were: active guerrilla warfare which caused frequent power outages and transportation strikes and included an incursion into the City that shut down work for one

month and slowed the re-startup by another one to two months; high rates of inflation and a deteriorating colon:dollar ratio which seriously threw off contract cost estimates, and a clash in one major respect between applicable U.S. and Salvadoran project control systems.

The team concluded that both the mission organization for this Project and the implementing arrangements set up between the Mission and the GOES - both of which are spelled out in detail in the evaluation - were innovative (and should be considered by the Agency to be models for emulation in the future in similar projects.)

The team found that no specific consideration had been given to gender issues in project planning and assessment although some attention had been paid to women's issues during implementation, resulting principally in the addition of childcare centers to the housing projects constructed under the Project and the expansion and improvement of those in reconstructed/rehabilitated markets.

Notwithstanding the above, the team concluded that insofar as specific project benefits and beneficiaries could be identified, women as a group benefitted more from the Project than men.

Lessons Learned

The Project Manager was not only the right man in the right place at the right time; the fact that he stayed on the job from start to finish was a key ingredient in the Project's success.

This Project demonstrated that national professional personnel can be used to advantage in high level project management positions.

The creation of a Project Financial Manager position was an innovative development that helped expedite project implementation. This is another idea that should be used more widely by AID.

Project management style also was important. The constant "on-the-ground" review of project progress, together with the use of Monitoring Committees, kept management abreast of progress and problems and enabled them to solve problems before they became serious and caused major implementation delays.

Delegation of authority from AID/W to the Mission allowed for maximum flexibility in project management. This, in turn, allowed reprogramming of funds, always within the project's original goals and objectives, for optimal accomplishment.

Principal Recommendations

Since the Project is terminating and has successfully accomplished its objectives, no recommendations were made. The team did, however, make a number of suggestions for possible further Mission action with respect to some groups of project beneficiaries. The team also made some suggestions on the supposition that the Mission might wish to apply procedures developed under this Project to the Project for National Reconstruction.

ATTACHMENTS

K. Attachments (List attachments submitted with this Evaluation Summary: always attach copy of full evaluation report, even if one was submitted earlier; attach studies, surveys, etc., from "on-going" evaluation, if relevant to the evaluation report.)

One copy of the final evaluation is attched, Final Project Report and Project Video.

COMMENTS

L. Comments By Mission, AID/W Office and Borrower/Grantee On Full Report

Project physical outputs far exceed those projected in the original project design. This is due in part to a shift in funds from credit lines, which proved to be unnecessary, to infrastructure. Physical outputs are also greater because of a rapid increase in colones which resulted from numerous exchange rates between the Colon and the Dollar and because the Project used the same administrative and operational procedures to carry out a number of projects with reflows from credit lines from the Recovery Project, 519-0333, ($6.6 M) and invested an additional ¢ 25.7M for other major infrastructure.

Therefore, the amount of infrastructure originally projected was modest by comparison to actual accomplishments, for example, the Project Paper contemplated an upgrading of 632 temporary classrooms to permanent structures. The Project went on to build 3,140 classrooms and other education spaces complete with exterior civil works to include demolition, rubble removal, site excavations and intricate site stabilization practices with the use of piles and other techniques, and constructed recreational areas (basketball courts, football fields) and such things as multipurpose rooms, perimeter walls and many other accoutrements. Thus, what was expected and what was accomplished are not comparable in the sense that design and construction requirements were totally different. Moreover the quality of schools are of a caliber well above what was originally envisioned as was the magnitude of the physical size of subprojects.

The same phenomenon occurred in the other major infrastructure components. What had originally been projected was two major markets and some demolition, resulted in 14 major markets that will serve the needs of San Salvador for several future generations.

An initial projection in housing was close to real project output. Some 12,000 housing units were expected to be repaired or reconstructed. Of the 12,000 units, 8,000 were supposed to be home improvement loans which individuals would make on their own repairs. The remaining 4,000 units would be rebuilt in the central city areas where no attendant infrastructure, public services or community facilities would be required. Again, and although the Project constructed 13,062 homes, comparisons can not be made because the homes constructed were all carried out in areas where all of the public services, community facilities, civil works, extensive earthwork, schools, daycare centers, and land had to be acquired, etc. In short comparisons can not be made between the very modest goals established at first and the actual, much expanded goals achieved. Both the number and nature of projects actually carried out were different. So were the conditions which existed during implementation vary. The points is that the project far exceeded the original goals in terms of numbers and the quality of project and "one classroom built," is far superior to "one classroom projected." The same condition holds for all other infrastructure.

While the foregoing is positive from both a US and a GOES point-of-view, it raises questions about the manner in which this infrastructure can be integrated into the line offices of the Mission so that this newly acquired infrastructure does not fall into disrepair and become inoperative because of lack of maintenance, repair, management and appropriate control.

Ministries and proprietory agencies do not have a plethora of maintenance funds so much will be expected from the user groups and communities. The fact remains, however, that the Mission and counterpart GOES agencies in health, education, public works, housing, municipal and community development, private sector development and even the Office of Democratic Initiatives need to consider some investments in the earthquake area until a position can be developed on the care and maintenance of the existing and newly created facilities. Much to the Mission credit is that this issue has been under consideration for some time and specific projects are being developed to deal with these issues. Furthermore, the use of additional reflows from the Project is being considered.

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EL SALVADOR EARTHQUAKE RECONSTRUCTION PROJECT EVALUATION

Prepared for:

U.S. Agency for International Development/El Salvador

IQC Contract No. HNE-0000-1-00-2100-00
Delivery Order No. 1

Submitted by:

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April 30, 1993

TABLE OF CONTENTS

Page No

I. Executive Summary 1

II. Predicate of Study; Methodology 5

A. Predicate of Study 5
B. Methodology 5

III. Background 6

A. The Situation in El Salvador During Project Implementation 6
B. The Earthquake 8
C. First US Reaction - The Relief Program 8
D. The Earthquake Recovery Program (Project 0331) 8
E. The Reconstruction Project (Project 333) 9
F. Other Donors 9

IV. Institutional Arrangements for Implementation 11

A. General 11
B. Infrastructure 13
1. CEL 13
2. General Directorate for Reconstruction (DGR) 14
C. Credit 15
D. Housing and Housing-Related Components 16
1. The Relocation/Resettlement Component 17
2. The PVO Component 17
E. AID Direct Procurement 20
F. Court of Accounts 20
G. Secretaria Nacional de la Familia 21
H. Other GOES Ministries 22
I. Office of the Mayor of San Salvador 24
J. Monitoring/Project Implementing Committees 25

V. Procurement Procedures 26

A. Host Country Contracts 26
B. USAID Direct Procurement 27

TABLE OF CONTENTS

Page No

VI. The Implementation Process - Administrative and Operational Procedures 29

A. General 29
B. Infrastructure 30
1. Sub-Project Identification 30
2. Sub-Project Selection 31
3. Preparation of Action Plans 31
4. Preparation of BID Documents 32
5. Procurement Process 33
a. Private Sector Contracts, Evaluation and Award 33
(1) Technical Evaluation Committee 33
(2) Awards Committee 33
b. Approvals of Contracting Actions 34
c. Bonds and Guarantees 34
d. Mobilization Payments 34
6. Contract Administration 35
a. DGR 35
b. CEL Force Account Construction of Schools 36
7. Financial Management 36
a. General 36
b. Directorate General for Reconstruction (DGR) 38
c. Staffing - USAID/ERD 38
d. Award Surveys 41
e. Recurring and Special Audits and Studies 42
(1) Recurring Audits 42
(2) Special Audits and Studies 43

VII. Project Accomplishments 44

A. Physical Works 44
B. Institutional 45

TABLE OF CONTENTS

Page No

VIII. Project Impact 46

A. Impact on Project Beneficiaries 46
1. Individuals 46
2. Institutions 47
B. Employment 47
C. Local Commerce and Economy 49
D. Construction Industry 49
E. Project Reflows 51

IX. Unintended Results. 52

X. Gender Issues 55

XI. Project Design and Project Design Modifications 56

XII. Lessons Learned 62

A. Lessons Learned 62
B. Some Suggestions for USAID 64

Annexes
A. Bibliography
B. People Interviewed
C. Sites Visited
D. Gender Issues
E. Court of Accounts
F. Scope of Work

ACRONYMS

A.I.D.	US Agency for International Development; Agencia para el Desarrollo Internacional de Estados Unidos
A & E	Architect-Engineer; Arquitecto-Ingeniero
ANDA	Administración Nacional de Acueductos y Alcantarillados; National Administration for Water and Sewers
BCR	Banco Central de Reserva; Central Reserve Bank
BID	Banco Interamericano del Desarrollo; Interamerican Development Bank
CA	Court of Accounts; Corte de Cuentas
CASALCO	Cámara Salvadoreña para la Industria de la Construcción; Salvadoran Chamber for the Construction Industry
CEL	Comisión Ejecutiva Hidroeléctrica del Río Lempa; Executive Commission of Lempa River Hydroelectricity
CHF	Cooperative Housing Foundation; Fundación para Vivienda Cooperativa
DGC/ CAMINOS	Dirección General de Caminos - DGC; General Directorate for Roads - MOP
DGR	Dirección General de Reconstrucción; General Directorate for Reconstruction
ERD	Earthquake Reconstruction Division; División para Reconstrucción del Terremoto
FNV	Financiera Nacional de la Vivienda; National Housing Financier
FONAVIPO	Fondo Nacional de Vivienda Popular; National Popular Housing Fund
GOES	Government of El Salvador; Gobierno de El Salvador
IBRD	International Bank for Reconstruction and Development; Banco Internacional para Reconstrucción y Desarrollo
IDB	Interamerican Development Bank; Banco Interamericano de Desarrollo - BID

IRD	Infrastructure and Regional Development Office USAID; Oficina de Infraestructura y Desarrollo Regional
IVU	Instituto de Vivienda Urbana; Urban Housing Institute
MINED	Ministerio de Educación; Ministry of Education
MIPLAN	Ministerio de Planificación y Coordinación para el Desarrollo Económico y Social; Ministry of Planning and Coordination for Economic and Social Development
MOP	Ministerio de Obras Públicas; Ministry of Public Works
MSPAS	Ministerio de Salud Pública y Asistencia Social; Ministry of Public Health and Social Welfare
OFDA	Office of Foreign Disaster Assistance (AID); Oficina para Ayuda Externa para Desastres
PIL	Project Implementation Letter; Carta para Implementación de Proyectos
PRONAVIPO	Programa Nacional de Vivienda Popular; National Popular Housing Program
PVO	Private Volunteer Organization; Organización No Gubernamental Privada
SETEFE	Secretaría Técnica de Financiamiento Externo; Secretariat of External Financing
SNF	Secretaría Nacional de la Familia; National Secretariat of the Family
USAID	See AID

I. EXECUTIVE SUMMARY

The earthquake that struck San Salvador, the capital of El Salvador, on October 10, 1986 killed an estimated 1,500 people and injured 20,000. Damages were well over $1 billion. Telecommunication and electrical services were knocked out as were a substantial part of the city's infrastructure including water and sewerage, streets and bridges. Thousands of homes and hundreds of schools were destroyed or rendered unusable, as were 300 of the city's largest buildings, including most of its hospitals and a number of government office buildings.

The U.S. Government, deeply committed to social and political stability in El Salvador but also responding to the compelling humanitarian need, responded quickly and decisively. Almost immediately $325,000 in emergency assistance was made available, followed scarcely one month later (in November) by a $50 million recovery program. As that latter program was being implemented planning was going forward for a wide-spread program to help in the work of reconstruction.

Within less than a year after the earthquake, in September, 1987, the USG and the GOES signed the $75 million, three-year Earthquake Recovery Project which is the subject of this evaluation. The Project was amended one year later by the addition of $23 million and the extension of the project completion date by one year. In the event, the Project funds -- plus an additional $2.0 million equivalent in from the Recovery Project -- will have been fully expended, and well expended, in slightly less than six years from the time of the signing of the first tranche. The team considers this a remarkable accomplishment under any circumstances (and considers the original time-frame contemplated as unrealistic and probably more the result of extrinsic circumstances than of a technical estimate based on the objective facts of the situation in San Salvador).

Furthermore, the circumstances in El Salvador during most of the period of project execution were not "*any*" circumstances. They included an active guerrilla war which resulted, inter alia, in frequent outages of electric power, transportation strikes and slow-downs, a very low-level of A&E and contracting capability at the beginning of the project and, at one point, during a prolonged incursion by guerrilla forces into the city, a complete paralysis of operations under the project for three months followed by a further delay of two to three months for re-start-up.

Economic conditions also hindered project execution. Rates of inflation approaching -- or exceeding -- 20% during most of the period played hob with contractors estimates, as did an exchange rate that went from five colones to the dollar to 8.7:1. (This latter factor had an up side, however. Since the colon exchange rate deteriorated

faster than inflation, the Project generated more colones than originally planned, thus allowing for more construction than originally contemplated.)

Early in the implementation phase Project Management *designed and put into place an innovative management system based on pre-existing AID models but sensitively adapted to the reality in El Salvador.*

Under these circumstances, *Project personnel then put together, with the GOES offices concerned, an equally innovative handbook of procedures, combining US and Salvadoran legal requirements, to cover Project procurement.*

These two actions are stressed because they are seen by the team as two highly important early steps that contributed to the outstanding success of this Project. *The organization of the Mission and implementation arrangements installed for carrying out the Project are set out in some detail in this evaluation because the team believes they should serve AID as model for future activities of this type and scope.*

In the event, the Project went on to produce the following results (among others):

- More than 13,000 housing units constructed or repaired on 103 sites in and around San Salvador.
- 8 major public markets constructed and 6 repaired or reconstructed.
- Over 2,200 classrooms and 800 administrative and support areas constructed in 235 schools.
- 26,604 items of school furniture and equipment purchased.
- 7 public health and medical facilities reconstructed or rehabilitated and furnished with basic medical equipment.
- 24 kilometers of highway reconstructed.
- Credit extended for the reconstruction/rehabilitation of 4 large private schools, 3 small businesses and 20 private medical facilities.
- Two wells drilled and capacity increased in a water treatment plant.

Of the $93.2 million spent directly on the above activities, $36.9 million, or almost 40%, were spent on the various housing components of the Project. *Virtually all of these funds were targeted on lower income groups. Thus, almost to the maximum extent to which Project funds <u>could have been</u> targeted (given the fact that the Project aimed at*

reconstruction of pre-existing facilities) they were targeted so as to meet the Project purpose of focussing on lower income persons.

These accomplishments required the management, over the life of the project, of 588 contracts or other procurement actions carried out by or through nine ministries or ministerial-level organizations of the Salvadoran government (and involving the participation in some form of many more), the City of San Salvador and four private voluntary organizations. Only a small number of these procurement actions - 46 - were direct USAID procurements.

Nor do Project accomplishments end with a mere recounting of physical construction completed and bureaucratic difficulties overcome. In evaluating the impact of the Project, the following accomplishments also must be noted:

- Some 15,600 to 18,000 person-years of employment were generated.
- Some C1.0 billion of local trade was generated.
- PVO's, both U.S. and Salvadoran, were strengthened considerably by work provided under the Project. A new Salvadoran PVO was created.
- Because of the Project's policy of forbidding funding for asbestos roofing, a new non-asbestos roofing material probably has become the new standard for housing construction in El Salvador.

Although the policy for the Project set out in the project paper specifically eschewed considerations of institutional development, the Project resulted in a considerable strengthening of project implementation capacity within the Salvadoran government It also greatly increased the capacity of the Salvadoran A & E and contracting industries which should now be up to meeting the coming challenge under the country's National Reconstruction Program. The detailed attention paid by project management to the minutiae of contract administration produced another noteworthy benefit with respect to Salvadoran A&E and contracting industries, best summed up in the words of a Salvadoran contractor: "We all learned an expensive lesson on this project, but it was worth it to eliminate corruption from the bidding."

Gender issues were not taken into account in planning or assessing the Project which was considered as dealing only with physical reconstruction. Some sensitivity to this issue was demonstrated in implementation, chiefly through the addition of child care centers to new housing projects and the enhancement of pre-existing child care centers in the reconstructed markets. Despite that fact, among identifiable project beneficiaries women almost certainly received more direct benefits than men; well over 60-70% of the vendors in the reconstructed markets (if they may be considered as beneficiaries) and 55% or more of the owners of new houses constructed under the Project were women.

Indeed, if there is any criticism at all to be made of what must be considered an outstanding accomplishment, it is not the advance failure to consider the impact of the Project on women, but rather its impact - or, more precisely, the impact of the housing components of the Project - on *people*. The team believes it was a mistake to assume that low-cost housing construction could be a discrete activity, without more. More is needed, in the form of technical assistance to the new communities constructed under the Project in how to come together to solve their own problems. If they don't learn to do that there is likely to be a price to pay in terms, precisely, of social and political stability. Fortunately this earlier oversight can still be remedied.

The team believes there are a number of lessons that can be learned from this Project, many of which are of relevance to future emergency reconstruction projects and even to "normal" development projects. Among the most salient, the following may be listed:

- As a key determinant of the success of any project nothing is more important than an experienced, dedicated and capable project manager.

- Continuity in management is an extremely important factor in project success.

- Local national personnel can play key management roles; management will be strengthened by their knowledge of and sensitivity to the local scene.

- An "on-the-ground" management style - getting out and looking at the project and having trusted personnel in key positions in the implementation process - is a far better guarantee of good results than any paper reporting system yet devised.

- Delegation of maximum flexibility to Missions, particularly in highly fluid situations such as disaster relief and follow-up operations, pays off.

- Large, multi-sectoral projects impinging on the specialty areas of several USAID technical offices work best under a single manager with over-all responsibility for implementation of the whole project.

- A project financial manager, working directly with the project manager, is a model worth replicating.

II. PREDICATE OF STUDY; METHODOLOGY

A. PREDICATE OF STUDY

This study was carried out under a delivery order issued pursuant to AID IQC No. HNE-0000-I-00-2100-00 with Development Associates, Inc. The task specified in the delivery order was:

> "to evaluate the above referenced project (i.e. the Earthquake Reconstruction Project, No. 519-0333) and make recommendations which will be useful to USAID in future assistance programs following natural disasters."

B. METHODOLOGY

To carry out the above task, a three-person team visited El Salvador during the period from March 3 to April 6, 1993. In that period the team reviewed all relevant Mission documents concerning this project (see Annex A, Bibliography), interviewed individually or in focus groups representatives of all government and private sector groups involved in project implementation plus a broad array of people involved in the execution of the project, including project beneficiaries (see Annex B., People Interviewed) and visited over 30 sites at which physical rehabilitation/reconstruction work was carried out (see Annex C., Sites Visited). A two-hour helicopter overflight of the area affected by the 1986 earthquake helped the team to appreciate both the physical extent and the geographical layout of Project activities.

III. BACKGROUND

A. THE SITUATION IN EL SALVADOR DURING PROJECT IMPLEMENTATION

The Earthquake Reconstruction Project carried out in San Salvador and surrounding areas from September, 1987 through March, 1993, would have to be considered a highly successful effort under any circumstances. Given the circumstances that actually obtained during the period of project execution, the team believes this project must be counted as an outstanding effort on the part of U.S. and Salvadoran project personnel. The obstacles to successful implementation faced by this Project were extraordinary; to name the three most important:

During the entire period of Project execution there was active guerrilla warfare going on in El Salvador. On a number of occasions this warfare intruded into or otherwise affected the project implementation area. Sabotage of the power lines to San Salvador was frequent, occasioning numerous power black-outs. The FMLN, the anti-government guerrilla coalition, also achieved some success from time to time in calling for strikes that caused stoppages of transportation and other sorts of economic activity. On one occasion open warfare in San Salvador caused the evacuation of USAID personnel working on the project and brought project execution to a halt for a period of three months. The fact that much of the construction equipment engaged in Project activities was demobilized and that project sites became scenes of heavy fighting, with construction materials used to construct fighting positions, meant that the long start up time after the guerrillas withdrew caused even longer implementation delays. It might also be noted that this incursion took place at the height of the dry season, the peak construction season. The guerrillas also had some successes in organizing earthquake victims to refuse to cooperate with project plans for housing construction although most of this resistance eventually was overcome by the work of dedicated Project personnel, including personnel of the PVO's who carried out a large part of the housing construction program.

The war also had another effect that impacted on Project execution. In the war years preceding the earthquake, private construction capacity had shrunk substantially due to lack of work and steps taken by both Salvadoran and foreign contractors to move their equipment out of the country. Thus, when an extraordinary need for construction capacity arose, there was little capacity in country to meet it. The war probably also discouraged US engineers and contractors from coming into El Salvador, despite attempts to attract them to help make up for shortages of Salvadoran capacity.

The earthquake and the war, as well as international economic trends, also had a negative impact on the Salvadoran economy during most of the period in question.

These trends also impacted on project execution. The inflation rate at the end of 1986 was 31.9%.[1] It was 24.9% in 1987, 19.8% in 1988, 17.6% in 1989, 24.0% in 1990, 14.4% in 1991 and 11.2% in 1992.[2] These rates, of course, played hob with cost projections. Additionally, when combined with El Salvador's out-of-date procedures for handling "no-fault" cost increases under government contracts (an aspect that will be dealt with further on in this paper) the inflation rate created particular problems for contractors under the program.

At the same time, the Salvadoran colon went from 5.00 to U.S.$1 in 1986 to 8.45:1 in 1992. At the time of this report the rate was 8.72:1. This not only caused part of the inflation noted above but also increased costs directly for imported Project components not procured directly with AID dollars. (On the other hand, this change in the exchange rate also resulted in an unforeseen benefit to the Project. Since the exchange rate went up faster than inflation, there were more colones available under programmed dollar expenditures than had originally been contemplated. Hence, program managers were able to carry out more work under the Project than that initially planned.)

One other set of particular difficulties should be mentioned here. While not unique to El Salvador, the Salvadoran constitutional requirement that all expenditures by Salvadoran government entities be submitted to pre-audit by the Court of Accounts (*Corte de Cuentas*) added considerably to the time and costs necessary to carry out sub-projects.[3] Other aspects of public administration in El Salvador also added to implementation difficulties, but these are considered more-or-less "normal" circumstances in the countries in which AID works. For example, two separate disputes on the application of Salvadoran tax laws to project contractors caused several months of delay in some cases. One other "normal" circumstance affecting Poject implementation was the tropical rainfall which occurs during six months of each year. Heavy rainfall has a particularly devastating effect on construction.

Despite these obstacles, the Project surpassed its original goals and did so within a period of time (less than six years) which, although longer than the period originally contemplated, was considerably shorter than what, in the team's view, might reasonably and realistically have been expected at the beginning.

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[1]. Year-to-year change in the CPI. Source: Dirección General de Estadistica y Censos.

[2]. Ibid.

[3]. Pre-audit still is a fairly wide-spread legal requirement in Latin America. The specific problem of the Court of Accounts is dealt with more fully below.

B. THE EARTHQUAKE

The earthquake that struck San Salvador at 11:49 a.m. on October 10, 1986 caused wide-spread devastation and destruction. An estimated 1,500 people were killed and another 20,000 injured. Some 300,000 people were left homeless. Although estimates varied, damages were over $1.1 billion and included a substantial part of the city's water, sewerage, telecommunications and electrical systems and streets and bridges, including the crucial Comalapa highway leading to the airport. Thousands of homes, hundreds of schools, most of the city's major hospitals and over 300 large buildings, including a number of government office buildings, were destroyed or rendered useless.

C. FIRST U.S. REACTION - THE RELIEF PROGRAM

The Government of El Salvador moved swiftly to conduct a rescue and relief operation. U.S. assistance to this effort was forthcoming very quickly in the form of a $300,000 grant from AID's Office of Foreign Disaster Assistance (OFDA). The U.S. Ambassador used his $25,000 discretionary authority to provide lumber and sheet metal roofing for the construction of temporary shelter. OFDA also deployed its regional office from Costa Rica; this provided both technical assistance and communications equipment which put San Salvador back in touch with the outside world.

D. THE EARTHQUAKE RECOVERY PROGRAM (PROJECT 0331)

This program, which was signed on November 20, 1986, provided $50 million to help the Government of El Salvador restore basic public services and to provide at least temporary solutions to some of the most urgent problems brought about by the earthquake.

With the help of this program power was restored and work was launched on the restoration of other public services. Demolition and rubble removal enabled the GOES to reopen San Salvador to pedestrian and vehicular traffic. In addition 8,000 families received credit for rebuilding their homes and an additional 36,400 families received building materials to erect temporary shelters and/or were moved to safer areas. (Large numbers of the latter were to receive permanent housing under Project 333.) Some 3,300 small businesses received loans to reestablish operations. These funds also helped to construct: 724 classrooms and reconstruct 240 others; 118 major infrastructure projects including temporary hospital wards, operating rooms, warehouses and buildings for critical government programs (not including reconstruction of Ministry office buildings which were excluded from financing under this program and Project 333 as a matter of policy) and 29 medium-scale infrastructure projects to at least start the rehabilitation of low-income communities.

In short, this Program helped to establish a base for the subsequent reconstruction project. Some of the from 331 also were programmed into operations undertaken under Project 333.

E. THE RECONSTRUCTION PROJECT (PROJECT 333)

The Earthquake Reconstruction Project ("the Project") is the subject of this report. Initially authorized in September, 1987 as a three-year, $75 million effort, the Project was amended in September, 1988 to add an additional $23 million and extend the PACD by one year. Over the life of the Project an additional $2.0 in from Project 331 were added to expenditures carried out, so that final Project expenditures, as compared to those programmed initially, resulted in the expenditure totals set out in Table 1 below. Those expenditures required 588 contract/procurement actions carried out through one or more of nine Salvadoran ministries or ministerial-level organizations, the City of San Salvador and four private voluntary organizations. They required the active management involvement, as the GOES "project manager," of the DGR, the GOES organization set up in the Ministry of Planning to play that role and the pre-audit of each transaction by the Court of Accounts, a GOES watch-dog agency responsible to the Salvadoran Congress (somewhat analogous to the U.S. General Accounting Office but, again, exercising its functions through a pre-approval - in addition to post-audit - process).

The components listed in the left-hand column of Table I will give readers otherwise unfamiliar with the Project a fair grasp of the range of activities carried out. The flexibility provided to the Mission Director to reprogram funds between authorized components in what was and continued to be a very fluid situation was one of the keys to the success of this program.

F. OTHER DONORS

It should be noted that a number of other governments, as well as international development agencies, provided funds to meet needs arising out of the earthquake.[4] The World Bank provided $65 million in loan funds. These were to be used for lines of credit for houring and micro-small enterprises, reconstruction of schools and public buildings and repair of roads and public services. The Inter-American Development Bank provided an $18.1 million loan program for assistance in health, sanitation, transport, energy and telephone services. It also provided a $7.1 million grant for *tugurio* rehabilitation. The FRG provided a $15.0 million grant for the reconstruction of the original Bloom Hospital. Italy provided $100 million in loans and grants for housing, sanitation, health and seismic studies. France provided $20 million in a combination of loan and grant funds for the reconstruction of the Rosales Hospital.

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[4]. The information that follows was provided by USAID/El Salvador.

TABLE I

Reprogramming and Reflows[5] - Project 333

Component	Author'n of 9/87	Author'n of 9/88 (Added)	Final	($ equiv.)	Totals ($ equiv.)
Housing Credit	$30.0	--	$10.9	$0.3	$ 11.2
PVO Housing	1.5		17.8	--	17.8
Relocation/ Reset't	5.0	4.0	8.2	--	8.2
Bus./ Soc.Serv. Credit	14.0	--	0.5	--	0.5
Markets	3.0	9.9	16.2	--	16.2
Public Health	2.4	1.2	4.3	1.4	5.7
Public Schools	10.4	2.0	30.8	--	30.8
Comalapa Highway	2.2	--	1.6	--	1.6
ANDA	1.5	--	2.9	--	2.9
Project Support	3.0	1.8	4.2	0.3	4.5
Audits and Evaluation	0.5	0.5	0.5	--	0.5
Inflation and Contingency	1.5	3.6	.0	--	--

• All figures $000,000; columns may not add due to rounding.

[5]. Reflows from Project 331.

IV. INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTATION

A. GENERAL

The Earthquake Reconstruction Project was implemented under the management of the Earthquake Reconstruction Division of the Infrastructure and Regional Development Office. The ERD worked with approximately twenty-two Ministries, Directorates, and Financial institutions of the Government of El Salvador during the life of the project.

Initially, an effort was made to manage the Project through the USAID Technical Offices and their counterpart ministries and agencies, including, at that time a separate USAID Housing Office, under a project coordinator. This system proved ineffective and deficient very early. Therefore, the project was placed under the single project manager, and the ERD. The Housing Office was abolished.

Most, although not all, of the engineering and construction was performed by Salvadoran private sector firms under contract to the various implementing agencies of the GOES.

Implementation was effected through five different procurement systems. All worked simultaneously and in some cases in the same sub-sectors. All were coordinated and provided with advice and technical assistance, when required, by USAID through ERD.

The five implementing procurement systems were the following:

1. **General Directorate for Reconstruction (DGR).** The DGR managed design, supervision and construction of most infrastructure using host country contracts. The host country contracting procedures are discussed in Chapters V and VI below.

2. **Executive Commission for Lempa River Hydroelectricity (CEL).** CEL, as the national authority and operator of electric power generation and transmission facilities, has a capable internal construction management organization. Early in the project, CEL repaired, reconstructed or built approximately 131 damaged schools, using force account, or "by administration" methods. CEL was phased out of the project in 1990. The DGR effort already in progress on construction/reconstruction of schools then assumed all remaining work by contract.

3. **Credit.** Credit lines were established through the Central Reserve Bank to other credit institutions for financing of construction/repair of low cost housing and for rehabilitation/reconstruction loans to private schools, small businesses and private hospitals and clinics.

4. **Private Voluntary Organizations (PVOs).** Four PVOs constructed and repaired low-cost private housing for sale or rent to low income earthquake victims. Where necessary they also built site improvements, utilities and structures for community services. The greatest number of housing units built under PVO sponsorship, however, were self-help grant units. The beneficiary bought the land and contributed unskilled labor or cash to pay for labor but did not otherwise pay for the housing structure.

5. **AID Direct Procurement.** Imported materials and equipment, specialized technical assistance and limited design services were provided under AID direct procurement.

A total of 588 distinct procurement actions and contracts were executed under the five management systems. These varied in size from a few thousand dollars for consulting services to construction contracts exceeding $6,000,000.

These actions were executed by the various management systems as follows in expending the $98,000,000 of project funds.

Each of these procurement systems and their roles in project implementation are discussed in Sections IV.B through E below. Other entities and implementing agencies integrally involved or critical to the process are described in Sections IV.F through J.

The ERD was kept constantly aware of the progress and problems of each sub-project through Management, or Monitoring, Committees on which USAID was represented by ERD staff engineers. The same staff engineers provided technical assistance and advice to the various project managers in the DGR, CEL, the financial institutions, and, when necessary, to the implementing agencies, i.e. the GOES agencies who were the "owners" of the sub-projects. The Monitoring Committees followed each sub-project on a daily basis, from initiation to completion. All problems were reported immediately to the Chief of ERD. At the same time, the Chief of the Division, as overall USAID Project Manager, was meticulous in assuring that USAID regulations and U.S. laws were followed during procurement and the execution of each sub-project. These results were obtained by continuous monitoring and by a continuous concurrent audit during the first three years of the project. At the same time, compliance with Salvadoran law was assured by the pre-authorization surveillance of the Corte de Cuentas.

TABLE II

Procurement Actions Under Project 333

Management System	Number of Contracts or Procurement	$ Millions Value	%
1. DGR Infrastructure	227	$ 52.9	54.0%
2. CEL Force Account Schools	131	6.2	6.3%
3. PVOs Housing, Community	114	17.8	18.2%
4. Credit Lines Housing & Business	70	11.4	11.6%
5. USAID Direct Procurement	46	5.0	5.1%
Totals	588	$ 93.3	95.2%
AID & GOES Admin. & Technical Support, Audits, Evaluations		4.7	4.8%
Total Project $ Cost	**588**	**$ 98,000,000**	**100.0%**

Source: USAID/ERD Financial Manager, and PIL No. 205.

Thus ERD was, in effect, the construction manager of the entire program regardless of the sector in which work was performed or the identity of the GOES entity that would become the owner and user of any facility repaired or built under the project.

B. INFRASTRUCTURE

1. CEL

In the earliest part of the project, in order to begin reconstruction of critical schools quickly so as to minimize, as much as possible, disruption of the education process repair/reconstruction of 131 schools was undertaken by CEL by force account. CEL had a record of emergency work of a similar nature under the earlier recovery

program. Thus while the DGR was being established, and in order to avoid delays inherent in the normal contracting process, CEL agreed to accept management and construction responsibility for a list of priority schools agreed to by the Minister of Education and USAID. Funds were advanced to CEL to finance construction. As advances were liquidated, additional advances were made as necessary to complete the work. This work was completed during the early part of the project, and force account work was phased out in 1990.

2. GENERAL DIRECTORATE FOR RECONSTRUCTION (DGR)

As the ERD was the USAID construction manager for the entire program, the DGR was the GOES construction manager for infrastructure. During the life of the project, the DGR managed design and construction of facilities for:

1. The Ministry of Education
2. The Ministry of Health and Social Welfare
3. The Ministry of Public Works (General Directorate for Roads)
4. The National Administration for Water and Sewers
5. The Municipality of San Salvador

The DGR was established as a temporary entity under the MIPLAN expressly for the purpose of managing funds provided by external donors to the GOES for earthquake reconstruction. Like USAID/ERD, the DGR is staffed by employees under contract, not permanent government personnel. This enabled the DGR, among other things, to escape low government salary scales and pay salaries competitive with the private sector, thus assuring first class talent.

The DGR does not have contracting authority. Contracts prepared and advertised for bids or proposals by the DGR were executed by the owner, or using entity, which was recognized by the GOES and USAID as the official implementing agency.

As one of its first tasks the DGR prepared, and USAID approved, a policy and procedures handbook. The DGR Handbook incorporated the legal requirements of the GOES and of the USAID Handbook No. 11 for various types of procurement. Standard General Provisions for each type of contract were then written by the DGR, with the help of other GOES agencies, and approved after review and necessary revisions by USAID.

Both the DGR Handbook and the General Provisions were under constant review and were revised upon occasion when experience showed the need to strengthen certain sections or to remove what, in the local contracting environment, proved to be ambiguities.

The DGR also provided a monitoring and coordinating function on construction undertaken by PVOs, but grants were negotiated and operating procedures approved and monitored by USAID/ERD.

Procedures followed by the DGR are described in detail in Section VI below.

C. CREDIT

There were essentially two "credit" sub-programs established under the Project, both of which ran through the Central Reserve Bank (*Banco Central de Reservas - BCR)* in the first instance. The first was for loans to the private sector to rehabilitate/reconstruct small businesses, private schools and private health care facilities damaged or destroyed by the earthquake. This sub-component was established originally at $14 million; it was administered by the BCR through the commercial banking system and through BANAFI and FIGAPE, government development institutions.

The second sub-component, for $30 million, was for housing. Funds made available under this component were to be used to: repair or reconstruct single family houses or condominium apartments owned or in the process of being purchased under lease-purchase agreements; repair or rebuild tenements used for rental purposes; and assist low-cost tenement lessors to purchase their tenements or similar units in nearby areas. This component was administered through the National Housing Financier *(Financiera Nacional de la Vivienda - FNV)* which was later merged with the National Popular Housing Fund (*Fondo Nacional de Vivienda Popular -FONAVIPO)* which, in turn, on-loaned the funds to seven savings and loan institutions for lending to homeowners. (An additional $6.5 million, not included in this component, was made available under the original program, as modified in 1988, for PVO housing activities and relocation and resettlement programs. Through reprogramming, this amount subsequently reached a total of over $26.1 million. See Section IV.D below.)

Under the $14 million small business and social services component, 28 loans were made to 4 private schools, 20 clinics and 3 private businesses for reconstruction or rehabilitation.[6] Loans to the ultimate borrowers were for periods of 4 to 10 years and at interest rates of 14 to 17%, depending on the type and purpose of the loan. Loans from the BCR to the commercial banks under this line were at 10 to 13%, providing the latter with a 4-point spread; the BCR received 2.5% as a fee for administering this line. Repayments of principal and interest over and above the spreads were paid into a colon account which was used, by joint agreement, for further Project purposes. The intermediary banks were authorized to approve loans for up to 500,000 colones ($100,000 at the time of the agreement); loans above that amount had to be approved by the BCR.

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[6]. As of January 31, 1993. Source: Final Quarterly Report of Loan No. 519-0333, January 31, 1993, USAID.

Under the housing component of this credit line 2,728 houses or other housing units were constructed. Access to this component was targeted to low-income buyers by a combination of income and unit-cost eligibility ceilings. All four PVO's involved in the Project - Habitat, CHF, World Relief and the Red Cross - participated in a number of the sub-projects financed under this line either through land financing, infrastructure construction or working as developers between the S & L's and the home-buyers. An additional 295 units were repaired and infrastructure was constructed for an additional 334 units.

The BCR received no administration fee under this line. The FNV received a fee of 1% for administration and an additional 4 or 5% spread, depending on the type of sub-loan financed. This component included both short-term (up to 24 months) and long-term (up to 20 years) financing, at interest rates to the sub-borrowers of 14% (short-term) and 11% (long-term). In both cases, the spread to the S&L's was 5%.

In the event, only about $520,000 of the $14 million private sector component and $10.87 of the $30 million housing component were used for the purposes originally projected. By the time Project 333 was signed (in September, 1987), most of the potential borrowers under these components already had made alternate arrangements (including financing under the preceding Earthquake Recovery Project - 331) to finance their costs for reconstruction or rehabilitation.

(It should be noted that AID policy precluded the use of funds under the Project for refinancing of loans taken out in the immediate aftermath of the earthquake for urgent reconstruction or rehabilitation needs.)

The consequent need to reprogram the balance of these funds lead to a stretch-out in the implementation period for the Project. The original time-frame for disbursement of Project funds (three years plus a one year extension) had been based in part on the assumption that these credit lines would disburse as quickly as had those under the preceding project 331. In the team's view, elaborated elsewhere in this report, this time-frame was unrealistic in any event. However, the need not only to reprogram these funds but to reprogram them into construction activities, starting in CY 1989, made the amended PACD of September 1991 completely beyond reach.

D. HOUSING AND HOUSING-RELATED COMPONENTS

In addition to the housing credit program discussed above, there were two other groups of housing or housing-related activities carried out under the Project. Together these three housing "sub-components" involved a broad array of beneficiaries, each with their own separate housing problems, and an even broader array of administrating and implementing institutions many of which were involved in two or all three of the sub-components. The flexible and creative combinations of these many actors to focus on

the specific housing problems of the distinct earthquake-affected groups is just one of the bright spots of the Project.

Because some of the institutions involved in housing activities carried out work in several of the housing components of the Project, they are discussed at this point in what is, admittedly, a slight departure from the sense of the outline of this report.

1. THE RELOCATION/RESETTLEMENT COMPONENT

The Relocation and Resettlement component of the Project dealt with the post-earthquake housing problems of families who had lived in IVU-owned apartment buildings damaged by the quake and others who had lived in areas determined to be unsafe for construction of replacement housing. Many of the latter were low income families, including families without regular income. This component was administered by the Vice Ministry of Housing and Urban Development (VMVDU) through two components of that ministry, the Urban Housing Institute (*Instituto de Vivienda Urbana, IVU*) and the National Housing Financier (*Financiera Nacional de la Vivienda, FNV*) both of which later were merged into the National Popular Housing Fund (*Fondo Nacional de Vivienda Popular, FONAVIPO*). IVU carried out the repair of 71 apartment buildings containing 928 apartments at a total cost of $3,120,750[7]. An additional 877 houses were built by private contractors, contracted directly by VMVDU, at one relocation site and urbanization and infrastructure work was completed at four additional sites. This latter work provided the foundation for some of the low-cost, self-help housing carried out under the PVO component of the housing program (see below). Originally programmed at $5.0 million, the total cost of this component eventually was reprogrammed to $8.576 million.[8]

Two PVOs - Habitat and World Relief - also constructed project infrastructure under this component.

2. THE PVO COMPONENT

Four PVO's were involved in this component: Habitat, World Relief, the Cooperative Housing Foundation (CHF) and the Red Cross. World Relief and CHF are U.S. PVO's, although they both will spin off Salvadoran PVO's as a result of experience gained under the Project. Habitat (not connected with Habitat for Humanity International, a U.S. PVO) and the Red Cross are Salvadoran. Working with the DGR and the National Secretariat for the Family (*Secretaria Nacional de la Familia, SNV*) but with overall guidance and coordination coming largely from USAID, they served as developers in this

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[7] As of March 15, 1993. Source: Summary, Housing Reconstruction, Earthquake Recovery Project 510-033, USAID El Salvador - March 15, 1993.

[8]. Idem

component which resulted in the construction or improvement of 6,186 self-help housing units and the lotification, including the provision of water and sewerage infrastructure, on an additional 1,714 lots on which houses later were built by the Interamerican Development Bank. In all, this work encompassed 47 projects and resulted in new or improved housing for 7,900 families.[9] In many cases supporting infrastructure work, including construction of a number of retaining walls, was carried out by one PVO while the housing was developed by another. Social infrastructure - day-care centers, community centers, basketball courts, soccer fields and public laundry facilities - also were constructed under this component which also included the construction of several schools and the reconstruction of two centers for wayward or abandoned children.

The cost of the houses provided under this component ranged between $2,500 and $4,500 including all infrastructure. All have water, plumbing and electricity. Although the amount of self-help required varied from project to project, in all cases beneficiary families were required to either do the work (or have it done) themselves or to pay an equivalent amount in cash. In all cases professional skilled labor was used to accelerate construction.

Under this component the cost of the house and infrastructure was provided to beneficiaries as a grant. They are required, however, to repay the cost of their lots. Loans to the mortgagees under this component are for 20 years at 11% interest. The financing under this component is carried by FONAVIPO. It also is worth noting that many project costs under this component were provided as grant funding by the PVO's themselves.

Three of the PVOs expended $17,770,000, 18.2% of project funds, to provide low cost housing and community facilities (utilities, streets, schools, child care center, community buildings, etc.) for low income earthquake victims. Of the total, $10,691,272 was expended under grants to World Relief Corporation and the Cooperative Housing Foundation. The balance, $7,080,000 was utilized by Habitat Foundation under a cooperative grant.

The fourth PVO combine, Red Cross and Save the Children, along with their indigenous affiliate AFUBAM, built three self-help housing developments.

Grants for the three major PVO's were negotiated by USAID/ERD in response to a request from the DGR. The PVOs submitted unsolicited proposals to the DGR, and if acceptable to the DGR, the PVO and the DGR signed a Memorandum of Understanding, whereupon the DGR submitted the proposal to USAID for approval and negotiation. In practice, the DGR sent the PVOs to ERD before the unsolicited proposals

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[9]. Source: Summary, Housing Reconstruction, Earthquake Reconstruction Project 5-9-0333, USAID El Salvador - March 15, 1993.

were submitted. The PVOs were briefed on project limitations, needs, and criteria. It was then the responsibility of the PVOs to identify sub-projects eligible for project funding that they wished to undertake, and to present all the management, technical and financial details in their proposals.

To recapitulate, housing units constructed, repaired or facilitated by provision of site work under the Project were as follows:

TABLE III

Housing Built, Repaired or Facilitated Under Project 0333

Component	Done by	New Construction	Repair/ Improve	Infra-structure[10]	TOTAL by COMPONENT
Credit	Private Builders	1,764			3,357
	PVO's	964	295	334	
Self-help	PVO's	5,486	700	1,714([11])	7,900
Reloca'n/ Reset'l	VMVDU	877			1,805
	IVU		928		
TOTALS		9,091	1,923	2,048	13,062

Source: Summary - Housing Reconstruction - Earthquake Reconstruction Project 519-0333; USAID El Salvador - March 15, 1993. Table does not include community infrastructure such as community centers, schools, day care centers washing facilities, etc.

[10]. Housing on these los financed by BID.

[11].Housing on these lots financed by BID.

One other feature of the three housing sub-components of this Project should be noted. Although it was not possible to get a separate break-down by sub-component, of the long-term mortgage financing provided through the Savings and Loan system, as of January 31, 1993 repayments on 50.17% of the loans outstanding were more than one month overdue. These represented 1.96% of total colones outstanding. The bulk of these - 32.68% of total loans, were less than three months overdue. The number of loans in default for more than 6 months represented 10.15% of loans outstanding, or 1.16% of the colones loaned through the S & L system under these programs.[12]

E. AID DIRECT PROCUREMENT

AID direct procurement was the fifth channel, or procurement system, through which project funds were expended. Purposes and procedures are discussed in Chapter V below.

F. COURT OF ACCOUNTS

The Court of Accounts (CA) was created by constitutional mandate in 1939 as an independent arm of the Legislature. Its function is to authorize all disbursements of public funds by the Executive Branch and to intervene preventively, when necessary, in all transactions which either directly or indirectly affect the Government's balance sheet accounts.

Prior to execution the CA examined and approved, questioned, or disapproved all Executive Branch documents involving procurement. The examiners also reviewed and authorized all disbursements under approved procurements.

The CA examiners considered and passed judgement on the legality and fiscal and financial integrity, as well as the technical soundness of all Project transactions in which a GOES agency was the implementing agency. The process was lengthy and involved much give and take between the examiners, representatives of the DGR, and the implementing agencies. This extensive pre-approval process resulted in unacceptable delays in project implementation and making payments to suppliers and contractors.

The consensus among the various GOES and USAID project implementation staff interviewed by the team was that one of the most serious impediments to expeditious project implementation was the delay that resulted from the CA prior approval process. Two senior project managers estimated that because of CA involvement the procurement period, from initiation to final payment, and thus project implementation time, was increased by at least fifty percent.

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[12]. Figures provided by FONAVIPO.

The USAID included in the Earthquake Reconstruction Grant Agreement a provision that required the GOES to establish flexible procedures for CA review of the procurement and disbursement transactions of the project.

It was hoped that the GOES would exempt ER transactions from the pre-audit process. This exemption was permitted for the earlier Earthquake Recovery Project. When the earlier grant was executed a state of emergency had been declared by the President of El Salvador. Expenditures made during the earlier period to restore essential services were subject only to post audit by the CA. This emergency exemption helped make it possible for the GOES to respond quickly to the most urgent needs of the populace.

However a state of emergency no longer existed when the Reconstruction Grant was executed in early 1988. Thus the GOES was unable to grant a similar exemption for this project. Instead 15-20 CA examiners were assigned to work in the DGR offices in the hope that this would expedite the pre-audit of DGR transactions. This hope did not eventuate.

The team met with the CA Director and several of her staff assigned to the DGR. They appeared to be sincere, knowledgeable, capable, and dedicated public employees. Their comments with respect to problems and practices in the procurement process were valid and of great value. The team believes the problem stems not from the CA staff but from the antiquated pre-audit system which resulted in a redundant two-tier review of technical matters and, to a great extent, vitiated the work done in preparing the DGR Project Handbook (since the CA personnel, who had participated in preparing that handbook which was designed to assure compliance with Salvadoran as well as U.S. legal requirements, insisted on independently reviewing the legality of each transaction as though the handbook had never been prepared).

Separate actions being taken by the GOES and USAID to overcome these serious implementation problems with the Court of Accounts which affect all project implementation efforts, not to mention the efficiency of government operations, are set forth in Annex E.

G. SECRETARIA NACIONAL DE LA FAMILIA

The National Secretariat of the Family (SNF)is one of four secretariats in the Executive Branch. It was established by Executive Decree No. 22 on October 19, 1989 "to serve as a link between the Presidency of the Republic and public and private institutions with respect to policy regarding the family as well as to be the guiding

organization which coordinates, plans and evaluates the policy centered on the family group and each one of its members."[13]

Its offices are in the Presidential Palace. It is headed by the Salvadoran First Lady, Doña Margarita de Cristiani. Its top staff are professionally qualified women.

The SNF, by agreement with USAID, administers the child-care centers, including child feeding programs, in the newly-constructed housing projects. The feeding programs are carried out, under the tutelage of the SNF, by various eleemosynary, frequently church, groups. The SNF has been active in finding these groups and bringing them in to administer not only the child feeding programs but also other social programs such as a program for old people run by the Sisters of Mother Teresa of Calcutta at *10 de Octubre* and a handicraft training center run by the Government of Taiwan at the same site.

Additionally, under circumstances the team does not quite understand (nor do the occupants of the communities affected) the Secretariat keeps the keys to a number of Project-financed community centers. In one community, *Lomas de San Bartolo*, the SNF wanted the community center to be used for child feeding while the community wanted it as a community center. The community agreed that the two purposes were not mutually exclusive but the SNF apparently feels they are. In another community, *Tikal*, the keys are in the hands of a seminary student as a representative of local church authorities who appear to hold <u>their</u> authority in the matter from the Secretariat. The young man in question reluctantly admitted that, in order to use the community center, the community *Directiva* would have to pay a "small" fee "for maintenance". The team visited that center which had been robbed of toilet fixtures and window glass while under the care of the church.

The matter of community access to community centers is discussed further in Section VIII below.

H. OTHER GOES MINISTRIES

Infrastructure projects constructed under the Project will be used and in most cases owned by the traditional ministries of the government, or by entities under their administrative control.

Ministry of Education - Schools and an orphanage
Ministry of Health and Social Welfare - Public health facilities

[13]. From a descriptive brochure put out by the SNF.

Ministry of Public Works:
DGC - Comalapa highway
ANDA - Water system materials, equipment, and improvements

The exception, in major infrastructure, was the public markets which are owned by the Alcaldía, the Municipality of San Salvador. The Municipality is discussed in Section I below.

The Ministries of Health and Education are organized with a small office for buildings and construction. These offices were tasked to represent their Ministries on Monitoring, Evaluation, and Awards Committees, and to handle such contract administration tasks as could not legally be performed outside the Ministry.

The USAID/ERD component managers, a Salvadoran engineer in each case, worked with the ministry engineers to try to assure that lack of administrative approvals in the ministries did not delay the work.

The ERD Financial Manager assisted the ministries in processing documentation for liquidations but in many cases with limited success. Delays in liquidations in the ministries sometimes were delayed to the point that funds could not be advanced to pay contractors when payments were due and approved. That of course worked a hardship on some of the contractors.

The first action required of the ministries was identification of need and determining priorities as to when, how, and if those needs would be met. As would be expected, different parts of the ministries had differing views on priorities. That at times delayed initiation of work on some sub-projects, but it is doubtful that it had any effect on the completion of the total project.

There were instances when ministerial personnel attempted to influence contract awards; that is, determine to whom a contract would be awarded. At one point in 1990 the award of contracts was stopped completely by USAID while the DGR Manual was revised and the continuous USAID monitoring system and more formal USAID approval of contracting decisions were formalized as a part of procurement procedures.

After that interim, open competitive bidding was easier to guarantee, and progress in the preparation and award of contracts improved markedly.

Work for ANDA on the water supply and distribution systems of San Salvador and reconstruction/repair of Comalapa highway for DGC were responsibilities of two subordinate agencies of the Minister of Public Works. In dollar value these were a relatively small part of the total project cost. Since there was not a large number of contract awards for MOP, problems there were not of a continuing nature, but on the highway work, at least, the Ministry did attempt to intercede in the award of both the

design and construction contracts. Again, this interference was stopped by the USAID Project Manager and did not recur.

In fact CASALCO, the local association of construction and engineering contractors, reported that they noted an improvement in the contract award process, and that the contractors came to believe that contract awards were fair with each bidder knowing he had a fair chance to win the award.

I. OFFICE OF THE MAYOR OF SAN SALVADOR

In the reconstruction of public markets, the Municipality of San Salvador had the same relationship to USAID and the DGR as the Ministries bore on other infrastructure. However, the Mayor of San Salvador played a more direct personal role than did the Ministers in identification of need and in assuring that his subordinates carried out their roles and duties.

Reconstruction of markets was not only more difficult and expensive per square meter than other construction projects carried out, because of congestion, but it also was politically sensitive because of the multiple functions served by the markets.

The markets provide a source of goods, including perishable meats and produce, to many thousands of people who have no other reasonably available sources from which to buy foods and necessities and who must shop every day because they have no refrigeration. And markets provide employment for several thousand vendors. The team estimates that upward of 80% of the vendors are women, many heads of households. Their informal intra-market organizations wield great power vis-a-vis market administrators who have great respect for them.

These vendors had to be relocated, usually to surrounding streets, while reconstruction proceeded and at the same time it was necessary to keep streets open for access to the construction site and for other traffic.

There were problems with interim relocations, just in the nature of the task, but overall they were handled deliberately and without excessive rancor. So far as can be determined the Office of the Mayor of San Salvador was effective in handling what could have become a volatile situation.

As the project progressed, the vendors came to have more faith that the Mayor, DGR, USAID, and the contractors would do what they promised so dealings with the vendors and their organizations became more orderly, but they never were really easy or routine.

An engineering and construction unit in the office of the Mayor designed some of the minor structural modifications to some markets and provided the municipal member

to the Monitoring Committee for Markets. The woman who represented the municipality on the committee is an experienced licensed architect who led one of the most effective of several Monitoring Committees.

J. MONITORING/PROJECT IMPLEMENTING COMMITTEES

Monitoring committees were organized in each component for which contracting was done by the DGR. Because of the size and number of sub-projects, seven monitoring committees were employed in the Education component; one committee served in each of the other components. These committees played a vital role in coordinating actions by the owner (Ministry, etc.), technical director (DGR) and the financer (USAID). It made it possible to make decisions in parallel, thus saving time and money in the entire process.

Each committee consisted of three members; one each from the DGR, the owner or implementing agency, and USAID. A committee followed each sub-project under its cognizance from identification to completion, following all contracting and construction actions. The primary function of the committees were quality control, early detection of problems and delays, devising of solutions with the help of other professionals and the superiors of each individual committee member. Functioning of the committees is discussed further in Chapters V and VI.

V. PROCUREMENT PROCEDURES

A. HOST COUNTRY CONTRACTS

Fifty-three percent of total project expenditures were obligated under 227 host country contracts prepared and managed by the DGR. The host country contracting phase of the project required and received the greatest portion of effort by ERD staff, not only because of the relative size of the inputs but also because of the number of client agencies, the general complexity of the effort, and the number of sub-projects in progress simultaneously on a great number of scattered sites.

Architect-engineer and construction contractors in the private sector were pre-qualified in four classes, reflecting the magnitude of the project each contractor was deemed qualified to execute. Pre-qualification was done by the DGR very early in the life of the project, and USAID initially accepted the DGR's judgement on the pre-qualification. Later in the project, USAID approved the list of pre-qualified contractors prior to bidding. Some contractors proved unable to perform satisfactorily on the size and type of contract for which they were pre-qualified.

Weakness in the pre-qualification process is not a surprising development, but was one potentially serious flaw in the host country contracting system, and caused problems and delays that might have been avoided.

An objective pre-qualification exercise by a professional construction management firm from the U.S., similar to the pre-award surveys of government financial entities undertaken by independent auditors under this project, should minimize the problem. It is not expected that a Salvadoran pre-qualification procedure for host country contracts can be completely divorced from social and political considerations unless the pre-qualification investigations and decisions are made by a foreign firm with the proper expertise.

The alternatives to host country contracts were force account by GOES government agencies and direct AID contracts. Experience has shown that intricate and prolonged force account projects are even more difficult to administer than host country contracts. Force account can be used for short periods when quick reaction time is vital, as it was with school reconstruction by CEL on this project. The storage, control and record keeping for construction consumables, difficulties in quality control, the great variety and number of purchases required and delays in liquidating advanced funds make force account unacceptable for sustained used in large multi-sector projects.

Direct AID contracting for engineering services and construction on disaster reconstruction projects has been used successfully in other parts of the world. The workload for USAID contracting offices is immense, however, and this method seems to

work best when local contracting, accounting and administrative skills of the required quality do not exist and cannot be developed, especially if more than one country is involved in the project.

In the instant case, all of the elements came together for a successful host country contracting effort. The greatest single element in the success of this project has been the availability of a professional project manager with extensive USAID project experience in project implementation and several years of responsible service in El Salvador before the earthquake. He took over management of the project, reorganized early Mission efforts, and stayed with the job until it was completed; continuity of competent management is considered to be a critical factor in satisfactory completion of any project.

The actual contract management process is described in full in Section VI below.

The Court of Accounts, *Corte de Cuentas*, established an office and stationed a permanent staff in offices of the DGR to review and approve contracting actions and disbursements both prior to and after contract award. This action probably provided quicker approvals than might otherwise have occurred, but the prior approval requirements were a significant and unnecessary cause of delay in each contract. The relationship and functions of the *Corte de Cuentas* is discussed in Section IV.E above.

B. USAID DIRECT PROCUREMENT

Approximately 5.1%, or $4.95 million, of project funds was obligated under direct USAID contracts, in addition to grants to PVOs working in the housing sector. The above figures do not include the materials imported from the U.S. for construction contractors by letter of commitment. These costs were over $1,000,000 and are included in the cost of the various construction contracts.

USAID also directly contracted with Salvadoran engineers to ensure closer USAID monitoring and adequate quality control when rates of construction increased. During the height of the construction program, work was underway simultaneously on up to thirty or more sites. On the CEL force account school construction program, while the DGR was busy establishing its contracting program and procedures, USAID/ERD provided nine local engineers to monitor all sites and all phases of CEL activities. Those engineers were directly responsible to the ERD Project Manager through the ERD Education Component manager.

Other than relatively minor, in cost, local contracts, all direct USAID procurement was for import of materials and machinery. Examples were: Cold storage boxes for the markets; metal for roofing; vehicles; pipe, valves, other materials, air compressors and power tools for ANDA to rebuild damaged water lines and provide water lines and supply to housing sites; medical equipment for hospitals.

Two design firms from the U.S. were contracted for engineering and architectural services to: (1) design highway reconstruction and repair, and (2) design four large schools. In general, individual engineering and construction contracts under this program were too small to attract the attention or interest of U.S. engineering and construction firms, although AID requirements for advertising in the U.S. were followed. The fact that a civil war was in progress in El Salvador during the first three years of the project also probably discouraged U.S. firms, although there is no direct documentation of this effect.

VI. THE IMPLEMENTATION PROCESS - ADMINISTRATIVE AND OPERATIONAL PROCEDURES

A. GENERAL

Implementation procedures, and the processes through which the five different implementing procurement systems accomplished the various phases of the work varied in detail as is described in Sections B through F below. However, a few basic principles were common to the five systems.

1. All work was done in accord with USAID regulations and U.S. law, although the implementing organizations and procedures were somewhat at variance with what has become customary USAID practice in administering the "usual" development project.

2. Policy and procedure guidelines or handbooks were developed and approved by and for procurement organizations, where nothing acceptable existed, very early in the implementation process. They were followed carefully, and revised whenever experience showed the need.

3. All aspects of the project implementation process were monitored continuously by USAID, through representation on the Monitoring Committees, to assure compliance with USAID requirements and with all project criteria and objectives.

4. Technical assistance was provided quickly whenever and wherever necessary to assure that construction was designed and built in accordance with the revised and current earthquake building code and that delays due to administrative procedures or lack of technical expertise were held to the minimum consistent with good management practice and the institutional arrangements in the GOES.

5. U.S. staff employed by USAID in the implementation process was held to a minimum. Qualified Salvadoran professionals performed as much of the work as possible consistent with U.S. law and USAID regulations.

6. There was almost daily consultation between USAID/IRD/ERD and the GOES implementing entities and the DGR. Close and amiable working relationships were nurtured and for the most part maintained between all parties involved in management of the project, project components and sub-projects.

7. The Salvadoran private sector performed most of the engineering, architectural and construction services. Free competition among all interested qualified firms was assured by following approved guidelines and by close monitoring of all decision making processes.

8. Each construction sub-project was identified by the using agency or by the DGR, based on needs of reconstruction/ repair of facilities falling under one of the project components. (Unsolicited proposals from PVOs were reviewed and criteria verified by the DGR and USAID.)

9. Each proposed sub-project was inspected by the Monitoring Committee, consisting of representatives of the DGR, USAID and the using or sponsoring entity, prior to approval.

10. Appropriate documentation, depending on the procurement system that would implement the sub-project, was prepared and agreed to in advance for each approved sub-project. These included the scope of the work, a construction schedule and documentation necessary to commit funds. Implementation of the specific construction activity began when funds were committed for the specific sub-project.

11. A continuous concurrent audit of the entire project assured the use of funds in accordance with project objectives and criteria and that proper accounting was made for all funds. As importantly, the auditors assured that GOES entities assigned proper personnel and adopted accounting procedures required to account for project funds. (The concurrent audit was discontinued after three years because no significant discrepancies were being found and it was determined that a regular annual audit was more cost effective.)

B. INFRASTRUCTURE

1. SUB-PROJECT IDENTIFICATION

Infrastructure sub-projects were first identified by the implementing, or owning, agency of the GOES. Loan and housing projects were identified by loan applicants, site and housing development contractors and the PVOs. In all cases, applicants were investigated and documented by the appropriate GOES authority, and certified to be eligible users or beneficiaries under terms of the Earthquake Reconstruction Project.

All infrastructure sub-projects were for repair or replacement of structures or facilities damaged or destroyed by the earthquake of October, 1986, or were built at new sites to provide housing, community services and water supply for earthquake victims

whose homes could not be rebuilt at their original sites because of damage to or the dangerous condition of the sites.

2. SUB-PROJECT SELECTION

The proposed sites of all sub-projects were inspected by representatives of the sponsoring GOES entity and USAID/ERD to verify the eligibility and suitability of the site and of the improvements to be made. In the case of infrastructure sub-projects a Monitoring Committee inspected sites and reviewed the objectives to be achieved by the sub-project, and its priority relative to others in the component.

On the basis of an oral report from the USAID representative on the Monitoring Committee, or after further investigation and discussion with senior GOES sponsor management, the USAID Project Manager decided whether to recommend tentative approval or rejection of the proposed sub-project to USAID management.

If the sub-project received favorable consideration from the Project Manager, he informed the DGR and MIPLAN, whereupon they submitted a proposed Action Plan for the sub-project. The Action Plan outlined the work to be done, a proposed budget and requested a commitment of funds. In Education, the component which had the largest number of sub-projects, several schools might be included in a single Action Plan.

If and/or when the Action Plan was approved by the Mission, a Project Implementation Letter (PIL) was issued from the Mission to the Minister of Planning and Coordination for Economic and Social Welfare (MIPLAN) approving the Action Plan and committing funds to the sub-project.

The sub-project was then ready for implementation.

Reprogramming of funds between components and between sub-projects was handled by the same mechanism.

3. PREPARATION OF ACTION PLANS

Preparation of Action Plans was the responsibility of the implementing or sponsoring owner agency of the proposed sub-project. Action Plans were coordinated within MIPLAN by the DGR and forwarded to USAID by MIPLAN.

It was not unusual for the terms, schedules and budgets to be reviewed by ERD with the DGR before Action Plans were submitted. That was especially true for large, complicated sub-projects or for Action Plans covering several sub-projects. In this manner, delay in revising and re-submitting of Action Plans was avoided. Time, as well as cost, was a critical consideration in satisfactory completion of the Earthquake Reconstruction Project.

4. PREPARATION OF BID DOCUMENTS

Requests for proposals, bid documents including scopes of service and contract specifications for infrastructure sub-projects were prepared by the DGR after USAID committed funds to the sub-project through the Action Plan-PIL mechanism described in Section B.3 above.

Execution of each construction sub-project required preparation, solicitation, award and administration of at least three contracts: a) Design, b) Construction, and c) Supervision.

In El Salvador, the design consultant seldom provides inspection and quality control of construction operations. Those services are provided by a third member of the construction team, the Construction Supervisor.

Standard general provisions for each type of contract, including commodity procurement, were utilized in all contracts as appropriate. Standard contract and solicitation forms, the general provisions, technical specifications or scope of work, and, for construction, the project design drawings all were part of the bid package upon which offers or bids were submitted by the contractors.

USAID approved documents at several steps in the process and prior to contract award as required by guidance from AID/W and Handbook 11. The ERD prepared standard internal memorandum and letter forms to simplify and expedite clearances and approvals by the concerned Offices and Divisions within the Mission.

One exception to the above procedure so far as it concerns design and technical specifications, occurred on the Guluchapa Water Supply Improvements sub-project undertaken for ANDA. ANDA engineers insisted on designing the project and preparing the contract specifications. Those technical documents went through a number of reviews and rejections by the DGR and USAID/ERD before they were deemed suitable for bidding by private contractors. The early drawings probably would have been adequate for force account construction by ANDA employees under ANDA construction superintendents and ANDA engineers. However all ambiguities had to be removed and all work clearly and completely defined, and subject to only one interpretation, before they were suitable for construction by contract.

These revisions delayed completion of the construction, possibly for as much as a year, but the contract eventually was awarded and completed.

Addenda issued prior to bidding were subject to the same process: Preparation by the DGR and approval by USAID prior to issue.

Change Orders, issued after contract award and prior to contract completion, were negotiated with the contractor, usually in response to a contractor proposal. Change Orders were negotiated by the sub-project Monitoring Committee, audited by the *Corte de Cuentas* and, on construction contracts, the Construction Supervisor. All Change Orders were approved by the *Corte de Cuentas*, and those above $15,000 were approved formally by USAID prior to issue.

5. PROCUREMENT PROCESS

a. Private Sector Contracts, Evaluation and Award

All offers or proposals from consultants and all construction bids were evaluated and contracts awarded by similar mechanisms.

(1) Technical Evaluation Committee

An Evaluation Committee was selected for each contract, composed of four members. One was assigned from the implementing agency, and two from the DGR; all three were voting members. The fourth member was the USAID component manager who observed the proceedings and answered questions concerning USAID requirements when asked, but had no voice or vote and did not evaluate bids or offers independently.

The Committee took custody of the offers at the bid opening. The entire bid opening procedure as spelled out in detail in the DGR Manual was monitored by the Monitoring Committee. The voting members of the Evaluation Committee evaluated and rated the offers or bids in accord with criteria established in the bidding documents. The contractors were ranked and the Committee selected the best proposal or bid from a responsive and responsible contractor who had been pre-qualified at the proper level prior to bidding. The Evaluation Committee prepared its recommendations and presented them to the Awards Committee.

Parties not a member of the Evaluation Committee were excluded from Committee discussions to avoid intimidation or undue influence being brought to bear on Committee members.

(2) Awards Committee

The Awards Committee consisted of four members also, one from the implementing agency and two from the DGR; one from the Contracts Department; one from the Technical Department or other designee of the Director and an observer from USAID without voice or vote.

The primary functions of the Awards Committee were to assure that the Evaluation Committee had followed correct procedures for reaching its decision; and to approve award of the contract to the contractor selected by the Evaluation Committee if all proper procedures had been followed in the evaluating and rating process.

Voting members of the Awards Committee were not the same as those on the Evaluation Committee, although the USAID observer often was the same person.

The Awards Committee was specifically forbidden to do two things: (1) to change the rankings established by the Evaluation Committee, and (2) to award the contract to other than the contractor recommended by the Evaluation Committee. The Awards Committee could not disqualify a contractor. That was a function of the pre-qualification process and the Evaluation Committee. These bounds on the authority of the Awards Committee were written rules published in the DGR Handbook, and the USAID observer was able to confirm that rules were followed.

b. Approvals of Contracting Actions

Before the contract was executed by the implementing Ministry or other entity, it was reviewed and approved by the Court of Accounts detachment assigned to the DGR. It also was approved by USAID both before and after signing to assure that the contract was in accord with the solicitation documents and that changes were not made without an approved Change Order.

c. Bonds and Guarantees

After the contract was awarded and before it was approved and signed, the contractor posted bonds and/or guarantees in accord with the bid documents to guarantee payments and faithful performance, and quality of materials and workmanship. In the few cases of contracts which went to default, the DGR and USAID were able to work with the bonding firms and creditors to devise ways to complete the work without legal action.

After final approvals and signatures by all parties, the implementing entity issued a Notice to Proceed within five days at which time the performance period of the contract began.

d. Mobilization Payments

It was not unusual, in fact, it was customary to pay to the contractor, in advance of beginning the work, a mobilization cost of up to 20%. These funds permitted the contractor to move in equipment, establish on-site organization, and try to

lock in the best fixed prices for some of the materials required for construction. The mobilization payment was recovered from progress payments later in the implementation phase for the sub-project.

6. CONTRACT ADMINISTRATION

a. DGR

All contract operations for an infrastructure sub-project were under surveillance of the assigned Monitoring Committee, described above.

Construction inspection and quality control were the responsibility of the consultant under contract for "construction supervision". The supervisor kept a record of all contract activities, and was expected to detect and report quickly all delays, unanticipated problems, or hidden site conditions that might lead to increased time of performance or increased cost.

The supervisor certified contractor progress and approved requests for payment before they were submitted to the DGR for processing.

Change Orders were not uncommon, if only to increase contract costs provided in the contract for escalation in prices of controlled commodities. A "*formula polinomica*" or materials and labor escalation clause in the contract, provided a pre-determined contractual method using an established formula for increasing contract cost to cover increases in prices of cement, labor and petroleum products. The supervisor augmented the Monitoring Committee in dealings with the contractor regarding payments, Change Orders and any other negotiations with the contractor.

The Court of Accounts sometimes provided a representative to the negotiations on larger Change Orders also. No Change Orders were issued, nor were any payments made, without the prior approval of the Court of Accounts. The Court of Accounts was invited to participate as a part of the Monitoring Committee to provide concurrent audit of Committee actions in a role similar to that of the USAID member. Court of Accounts participation could have expedited prior approvals of contracting decisions. The Court declined on the grounds that it had to stay aloof from the process in order to maintain objectivity.

It was found, in any event, that Court of Accounts approval during the Change Order negotiation process did not necessarily mean approval of requests for payment for the work at a later date. Delay in approving payment for work previously authorized has worked undue hardship on contractors and caused delay in project liquidations.

b. CEL Force Account Construction of Schools

CEL built or repaired schools with its own forces from early in the project until mid-1990.

A pre-award audit found deficiencies in the accounting system of CEL, a problem which was solved. Early deficiencies in management time devoted to the construction were also corrected.

USAID funds were advanced periodically to CEL to finance the work. As those funds were expended, properly accounted for and liquidated, additional funds were advanced.

At times, when the Court of Accounts was slow to approve liquidations, CEL financed continuation of the work with its own funds until the next advance was made. This complicated project financial management and worked a hardship on CEL, but it kept the work going without interruption.

At the request of the Director of the DGR, USAID provided and supervised nine Salvadoran engineers who inspected the CEL work. They were responsible for quality control, for expediting the work whenever necessary, and for reporting problems and delays to the ERD Education Component Manager.

CEL reacted quickly and positively to the reconstruction needs and restored or replaced a great number of buildings. The CEL forces were phased out as soon as they completed the work they had agreed to do and were returned to their normal employment in the CEL organization.

7. FINANCIAL MANAGEMENT

a. General

The USAID/ERD Project Manager was responsible for the overall financial management of the project. The GOES entities most directly responsible for managing project funds were the Directorate General for Reconstruction (DGR), the Executive Commission for Lempa River Hydroelectricity (CEL) and the FNV (later FONAVIPO) for housing.

Funding for the Infrastructure Component totaled about $64.1 million. Approximately $56.5 million were channeled through the MIPLAN to the DGR. Approximately $1.5 million was expended for equipment for ANDA. The remaining $6.1 million was channeled through MIPLAN to the CEL for construction of schools.

Approximately $11.2 million were channeled through the Central Reserve Bank to the FNV for the implementation of the housing line under the Credit Component of the project.

USAID/ERD retained direct financial responsibility for the following activities:

Grants to Private Voluntary Agencies	$ 17.8 million
Direct Procurement of Materials and Supplies for the Infrastructure Component	5.0
USAID and GOES Technical Support and Audits and Evaluations	5.0
	$ 27.8 million

The above total of $100 million includes $2.0 million in from the credit component of Project No. 519-0331, Earthquake Recovery, used in the public health, project support, and housing components.

As stated earlier the GOES and USAID had long recognized the need to improve the Financial Management Systems of the GOES. The first major steps to modernize these systems were taken in 1991 and 1992. At the request of the GOES, the USAID executed three two-year contracts to provide technical assistance to the government in: overhauling its tax system; decentralizing and modernizing its financial management and auditing systems; and changing Court of Accounts operations from a pre-audit to a post-audit process.

Because of perceived weaknesses in the GOES system and differences between AID and GOES accounting requirements it was necessary for the USAID and GOES to develop systems and procedures that would ensure prudent management of funds allocated to the project. These efforts included:

- creation of the Directorate General for Reconstruction to coordinate reconstruction activities of the GOES,
- employment of financial management and monitoring staff in the USAID/ER division,
- contracting of Consulting Firms to conduct award surveys of organizations already involved or under consideration for participation in the implementation of the project, and
- contracting for concurrent, recurring and special audits of project activities.

b. Directorate General for Reconstruction (DGR)

One of the most important actions taken to ensure sound project management was the creation of the Directorate General for Reconstruction. This Directorate, which is described more fully in Sections IV and VI, was created to coordinate the earthquake reconstruction activities of the GOES. One of its three principal organizational units is the Department of Administration and Financial Control. This unit consists of two divisions, the Financial Assistance and Control Division and the Administrative and General Services Division.

The Financial Assistance and Control Division provides budgeting, accounting and other financial services to the Directorate. The division maintains a comprehensive accounting and financial reporting system for the management of funds allocated to the DGR. It also provides technical assistance on financial matters to the DGR staff and to the staff of the implementing agencies.

During the life of the project the reconstruction programs managed by the DGR were audited regularly by public accounting firms and by the AID Inspector General (IG). Corrective action in response to recommendations contained in the Audit Reports was taken, in most cases, prior to the issuance of the reports.

c. Staffing - USAID/ERD

Another important action taken was the employment in the USAID/ERD of a highly professional staff to facilitate the development and implementation of the project. Included in this staff was a Financial Manager who served as Financial Adviser to the Project Manager and staff.

The Financial Manager maintained financial records for all components of the project and for sub-projects implemented under each component. These records, which were reconciled regularly with those of the USAID Controller and the DGR, were the basis for periodic reports on the financial status of the various projects and sub-projects. The financial reports facilitated the review and approval of Action Plans; programming and reprogramming of funds; evaluation of the financial performance of implementing agencies; and approval of project expenditures.

The Financial Manager also helped the DGR and implementing agencies to develop financial management and internal control systems; served as the project's principal liaison with the Controller's office; and coordinated action in response to recommendations made by the AID Regional Inspector General and external auditors.

The team believes that the in-house expertise provided by the Financial Manager contributed greatly to the successful implementation of the project.

During the review of the initial draft of this report The Mission raised the question as to whether the "hands-on" management style to which much of the Project success is attributed was so personnel intensive or management intensive as to raise questions about its suitability as a model for other similar projects as the team had suggested. In the team's judgement, quite the contrary was true: the personnel usage under the management design developed for this Project was quite economical for an activity of this size and scope, particularly considering the management intensivity of the design. This latter factor, as has been pointed out, was one of the key factors in the success in the success of the Project.

The staffing pattern for the Project, as it varied from time to time, is shown below at Table IV. As will be seen, the "core" staff of the Project consisted of 2 USPSC's - the Project Director and a Deputy, a Financial Manager, 3 to 4 engineers and a support staff of four including an Administrative Assistant. Flexibility was provided, and sensitivity enhanced through the use of "Non-PSC's", Salvadoran technical personnel working in and under the operational control of the GOES implementing agencies. They were used to fortify the capacity of these agencies in areas critical to project implementation. For example, the 7 "Non-PSC's" employed from October 1989 to mid-March 1991 were assigned to the Education Component; they provided field supervision for the construction of 131 schools by CEL and that of 32 other schools at various stages. Other "Non-PSC's" were used, for shorter periods, in DGR and in the Housing and Markets components.

It must be borne in mind, both in judging the management/personnel intensivity of the model developed here and in attempting to apply the lessons learned from this Project to other projects, that this Project had the following attributes:

- It involved the expenditure of $100 million.
- It involved 588 procurement actions.
- It involved nine ministries or ministry-level implementing agents.
- It dealt entirely with construction activities to which 95.0% of the Project's funds were dedicated. This construction (including reconstruction and rehabilitation) encompassed 13,062 houses/apartments, 14 major markets, 235 schools, 7 hospitals and 28 kms. of major highway.

That having been said, one way of judging personnel intensivity is simply to look at the cost. Total personnel costs of the Project, which the Mission puts at $1.23 million, constituted 1.23% of the total funds expended under this Project, or 1.29% of the amount spent on construction. The team regards either of those figures as very spartan ratios. The deployment of these personnel, "management intensivity" if you will, was, as already indicated, one of the "secrets of the success" of the Project.

TABLE IV
Staffing - Project 0333[a]

Position /// Dates	USPSC	Finance MGT	Admin. Ass't	Support Staff	Engin-eers	Non-PSC's[b]
Jan-Oct 1988	1			2	4	(1 TCN)
Oct-Dec 1988	2[c]			2	4	
Jan-Oct 1989	2	1		3	4	1 (+1 TCN)
Oct-Nov 1989	2	1		3	4	7
Nov 1989 -Jan 1991	1	1		3	3	7
Jan-April 1991	1	1		3	4	7
Mar - Aug 1991	2	1	1	3	4	2
Aug - Dec 1991	2	1	1	3	4	3
Jan - Mar 1992	2	1	1	3	4	4
April-Dec 1992	2	1	1	3	3	3
Jan - Mar 1993	2	1	1	3	3	2
Apr- 1993	1	1	1		2	4

(a) Does not include occasional use of TDY personnel brought in to cover for AL or HL of USPSC. Also does not include occasional procurement of "esoteric" skills under a local IQC. Note also that positions shown are "authorized", not necessarily "on-board" during periods shown.

(b) "Non-PSC's" were Salvadoran technical personnel working in and under the operational control of the various GOES implementing agencies. They were employed to strengthen those agencies in areas critical to Project implementation. The TCN's are shown here for convenience; they were not used as Non-PSC's.

(c) Second USPSC shown for period Oct. 1988 through Nov. 1989 was an education specialist.

With respect to the replicability of this model in development projects, the team would add one caveat: the management intensivity of this model, particularly when combined with the creation of a special, temporary agency to handle project implementation (such as the DGR in this Project), greatly reduces the institution-building impact which should be a part of every development project. Thus, even though, as noted elsewhere, the overall project implementation capacity of the GOES was enhanced by its implementation role here, that impact was greatest on the DGR. The Project probably had little institutional impact on other implementing agencies, although *some* of their personnel undoubtedly did learn some better ways of doing things.

That caveat should not, in the team's view, be considered to invalidate the use of other aspects of 0333's management model in development projects. Particularly worth studying in that connection, for example, are the roles of the "Non-PSC'S" (where they are acceptable to the Host Government) and the Financial Manager and the use of national employees in senior management positions. Finally, the continuity of project management must be emphasized as a key aspect of this model.

d. Award Surveys

The USAID contracted with public accounting firms to conduct award surveys of the private and governmental agencies that were already participating or being considered for participation in the implementation of sub-components under the ER project. Most of these surveys were completed prior to the execution of the grant or other implementing agreements. However, in the case of the GOES Ministries, the surveys were conducted after funds had been assigned to those institutions.

The purpose of the award survey was to determine whether the implementing entity had the management capability necessary to administer the project. It also determined the adequacy of the internal accounting and management control systems to accurately capture and record the financial data required for administering the project.

All of the award or pre-award survey reports were directed to the Regional Inspector General (RIG). The RIG transmitted the reports to the USAID along with comments regarding the adequacy of actions taken or under way in response to the findings and recommendations of the reports. In the event such actions were deemed inadequate the RIG would incorporate the recommendations into the IG follow-up system.

Most of the recommendations dealt with management deficiencies in the surveyed organization. Agencies were advised to develop written procedures for the management of the project; improve internal control and accounting systems; and provide and/or train staff to administer the sub-projects. Implementation of the recommendations improved management of ER projects as well as the other operations of the implementing agencies.

e. Recurring and Special Audits and Studies

(1) Recurring Audits

During the first 3 years of project implementation, USAID contracted public accounting firms to conduct concurrent audits of all components of the project.

The concurrent audits were discontinued in May, 1991. The GOES and USAID felt that the DGR and the implementing agencies had achieved a high level of efficiency in managing ER projects. Beginning with fiscal year 1990, USAID contracted Price-Waterhouse to conduct annual audits of the project.

The concurrent and annual audits had three objectives. They were to determine whether: (1) the fund accountability statements fairly presented project receipts and disbursements for the period audited; (2) the accounting and internal control systems of the implementing entities were adequate to manage project activities; (3) the implementing entities had complied with the terms of the agreements and applicable laws and regulations.

The two most recent reports of the RIG, dated June 25, 1992, covered the activities of the Infrastructure and Project Support Components and the Credit Component for the period October 1, 1990 to September 30, 1991.

The final audit of the project has begun and will cover the period from October 1, 1992, through the completion of the project.

The June 25, 1992 report on the audit of the Infrastructure and Project Support Components of the project contained no recommendations. The USAID had either taken corrective action or had adequately explained the circumstances that led to five recommendations in the draft report.

The RIG report of the same date on the Credit Component contained two recommendations. One dealt with recovery of unallowable costs. These were promptly collected. The other dealt with a procedural matter in the implementing agency. This recommendation was also promptly resolved.

The project has an outstanding record in regard to audit recommendations. First, there have been relatively few, given the magnitude and complexity of the project. Second, virtually all recommendations were implemented and closed prior to the issuance of the final reports. Those few that were included in the reports were closed promptly, usually within 30 days.

The continuous concurrent audit of all components and participants in this projected detected deficiencies early while they were still minor and could be routinely corrected in the normal flow of business. Thus, the Project Manager, and his staff were never diverted, and did not have to spend valuable time, in responding to serious audits findings at the end of the year.

(2) Special Audits and Studies

The USAID also contracted public accounting firms to conduct special studies and audits to assist it in resolving identified problems in project operations. These studies enabled the USAID to take corrective action quickly, avoiding even more serious problems in the later stages of project implementation.

In 1990 questions were raised with respect to the eligibility of applicants for housing units in the San Bartolo and Las Cañas projects. The USAID immediately contracted Price Waterhouse to conduct evaluations of the eligibility of the applicants for housing in those two projects. The studies revealed that a substantial number of families did not meet the established criteria. Corrective action was taken promptly. The implementing agency strengthened its applicant review process and the ineligible families were excluded from USAID funding.

In 1991 the ERD Financial Manager identified significant accounting and reporting deficiencies in the unit of the Ministry of Education that was implementing the School Construction Component of the ER project. USAID contracted a public accounting firm to determine what actions should be taken to correct the deficiencies. The contractor identified urgently needed equipment and supplies, prepared a budget for their acquisition, and recommended actions to strengthen the internal control and accounting systems.

Other special studies and audits that the USAID contracted for included: an audit of the financial operations of a defaulting contractor; a study of the organizational structure and operating procedures of a PVO; and the provision of financial management assistance to an implementing agency.

VII. PROJECT ACCOMPLISHMENTS

A. PHYSICAL WORKS

With recovery substantially complete by late 1987, San Salvador was ready to begin reconstruction. The Project assisted the GOES and the private sector in reconstructing and repairing schools, housing, public markets, hospitals, other medical facilities, and other vital infrastructure. USAID funds were also used to help reestablish small businesses and private health and educational institutions, particularly those benefitting lower income groups affected by the earthquake.

Principal among the Reconstruction Project's accomplishments were:

- 8 major public markets constructed; 6 repaired or reconstructed.
- Over 2,200 classrooms and 800 administrative and educational support areas constructed in 235 schools;
- 26,604 items of school furniture and equipment purchased;
- 7 public health and medical facilities reconstructed and equipped with basic medical equipment;
- 24 kilometers of highways reconstructed;
- domestic water materials and equipment costing $1.5 million purchased to respond quickly to continuing systematic breakdowns traceable to earthquake damage;
- 13,062 housing units were constructed or rehabilitated in more than 103 locations. Construction included basic infrastructure, water, sewers, electricity and 25 community facilities such as day care centers, schools and community meeting halls; and
- credit extended to the private sector for reconstruction of 4 large private schools, 3 small businesses and 20 private medical facilities.
- Expansion of potable water production and treatment at one ANDA supply source in order to provide water to serve the housing relocation sites.

B. INSTITUTIONAL

Institutional development was not included in statements of Goal, Purpose or Output in the design of the project. Nevertheless, implementation of the project demanded that Salvadoran personnel and institutions develop the organizations and capabilities required to accomplish the work. The major institutional development aspects of the project include:

- Construction management capability in the Directorate General of Reconstruction.
- Improved capacity and capability of Salvadoran engineering and construction firms.
- Increased technical skills of individuals in management and in use of computers in engineering design, construction scheduling, and financial controls.
- Development of three Salvadoran PVOs.

These and other unintended results of project implementation, are discussed more fully in Chapter IX.

VIII. PROJECT IMPACT

A. IMPACT ON PROJECT BENEFICIARIES

1. INDIVIDUALS

The team took some pains to talk to as many individual beneficiaries of Project activities as was feasible in the course of carrying out its tasks under the scope of work. This included a number of beneficiaries under the housing components of the Project, market vendors in the reconstructed/rehabilitated markets, administrators and staff of one of the rehabilitated hospitals (although they are not, strictly speaking, "beneficiaries") and even one borrower from the small business credit component. Most of them went out of their way to express their gratitude for the assistance provided and all expressed the feeling that the Project's impact on their lives had been strongly positive.

The team heard a number of minor complaints (uniformly expressed as such) about project details from some market vendors and from a number of the beneficiaries of the housing components. Those of the market vendors dealt with minor details of construction of the new markets. The team was assured by Project personnel that most of these will be taken care of either under the continuing responsibility of construction contractors or as additional work which will be funded from .

The problems noted by the housing beneficiaries, however, although they also will be taken care of eventually, do, in the team's collective mind, give rise to an observation of possible application to future disaster relief operations. These observations centered around two distinct features of the new housing projects. First, a number of the new houses and some apartment buildings (*mesones*) visited by the team were not yet hooked up to the water or electric lines that were available at the sites. In most cases this was attributed by Project personnel to the need to complete the paperwork required by the service providers, ANDA in the case of water and sewerage and CAESS in the case of electricity. The burden of determining what was needed and of getting it done fell, for the most part, on the project occupants themselves (although this was not universal. In some cases PVO personnel were helping the communities to get this done). (The team also does not understand why arrangements for timely water and electrical hook-ups could not have been made <u>prior to</u> completion of other work, so that this could have been done simultaneously with occupant move-in.)

A second, wide-spread (in the team's sample) phenomenon dealt with the matter of control of the community centers built as part of many of the housing projects constructed under the Project. In the team's view, this matter seemed to revolve around the understandable desire of the SNF to be sure, before turning control of the centers

over to the communities, that the communities are in a position to maintain them and to assure that all members of the community have equal access to them. However this is being handled in a manner that appears to suggest to the communities involved - and probably correctly - that they are not "Masters (or Mistresses) of their own house". But if they are not, why (from their point of view) should they worry about maintenance of common areas or even if it comes to that, paying off their loans? Of the sites visited the team found this problem at *Tikal* (in an aggravated degree), *10 de Octubre* and *Lomas de San Bartolo.*

Both of these matters, in the team's opinion, revolved around a central theme. Although Project personnel assured the team that these matters had been fully explained to project occupants, the latter professed - sincerely in the team's view - not to understand the problems. The "central theme" referred to is the difficulty of communication across class or educational lines. Enough has been written on this point so that it need not be belabored here. Suffice it to say that, in the team's opinion, insufficient attention has been paid to this point, to date, with respect to the occupants of the new housing units built under the Project.

One important reason for this undoubtedly is the fact that the Project was conceived and designed as a physical reconstruction project. Considerations of institutional - and presumably social and political - development were deliberately excluded. This was undoubtedly sound from the point of view of disaster assistance philosophy which dictates the fastest possible in and out time on this type of project. However, the team seriously questions the notion that housing construction, particularly where, as here, it involves the relocation of large numbers of people into new communities, can ever be regarded as involving only "physical construction". Especially given the fact that the underlying leitmotif of this entire reconstruction effort, as set out in the Project Paper, revolved around "social and political stability", the team feels that more attention should have been paid to these aspects of the housing program during project implementation and that serious consideration should be given to taking steps, in final close-out arrangements, to see that continuing attention is paid to them both by the GOES and in on-going Mission activities.

2. INSTITUTIONS

As already mentioned, the Project Paper specifically precludes attention to possible issues of institutional development that may arise under the Project. Nevertheless, there were some specific, marked benefits noted to institutions involved in operations under this Project. They are treated in Section IX, "Unintended Results".

B. EMPLOYMENT

Approximately $88.5 million of project funds were spent directly in the local economy for construction and for architectural and engineering services.

During the implementation of the project the effective exchange rate at which project local currency was generated rose gradually from 5.0:1 to approximately 8.72:1. During the period of most intense construction activity in the last three years of the project the average effective exchange rate was above 7.0. Calculations show that the average exchange rate at which funds were expended was not less than 7.6:1. In fact, given the varying exchange rates, the Project financial records show that about C672.5 million was generated directly by the project.

These funds were spent on all phases of construction related activity. The remaining project funds were expended for administrative and support costs and for direct procurement.

During the same period, the cost of unskilled construction labor rose from C540 per month to C960 per month. Given the skills involved at higher pay scales which varied widely between projects, the average wage of all construction labor during the life of the project can be assumed to be C1,400 per month.

In a semi-labor intensive construction industry which exists in El Salvador, approximately 45% of construction related direct cost will be expended for labor.

If, then, C302.66 million were used to pay labor under the Earthquake Reconstruction Project, at an average rate of C1,400 per month, 216,183 m, or approximately 18,000 person-years of direct labor was employed in implementation of the project.

The DGR uses a rule of thumb that C3,600 per month expended on construction generates one man-month of employment. On this basis, it could be estimated that the project utilized 186,825 person-months, or approximately 15,600 person-years of labor.

Neither of the above derivations is precise. Both are based on experience and judgment. But it is evident that the number of jobs generated in El Salvador through the project was significant.

Construction jobs by their nature are temporary, but experience and training gained by many of the individuals on the project should increase their earning power in the future.

There was indirect employment generation due to maximum use of local materials, especially cement, sand, gravel, fiber-cement roofing and steel rods. The actual number of jobs involved in producing and transporting local materials that can be attributed directly to the project cannot be determined precisely in the absence of statistics, but probably was about 15% of the direct labor generation, or approximately 2,500 person-years over a five year period.

C. LOCAL COMMERCE AND ECONOMY

Almost all monies paid to construction labor turns over rapidly in the local economy. A conservative estimate is that money will have a multiplier of 3.0 as it moves through channels of trade and commerce from the expenditures of the construction laborers. These funds do not represent new investment or growth, but they are transfer payments which pay for goods and services provided by others as a result of expenditures by the original wage earner directly employed on construction funded by the project. And as noted above, there will be indirect revenues as a result of wages paid to producers and haulers of materials locally produced and used on the project.

There will, of course, be a foreign exchange cost of production, but most of the funds paid to local workers at least remained in the economy.

If the total wages paid to labor did in fact diffuse through local trade channels to providers of goods and services as estimated above, the volume of local trade generated by project funds exceeded C1.0 billion and provided a livelihood for a great number of Salvadorans, including many at the lowest income levels.

And the $88.46 million for which the colones were exchanged at the Central Reserve Bank assisted in meeting the national foreign exchange requirements.

D. CONSTRUCTION INDUSTRY

At the time of the earthquake, the private sector engineers and contractors were working at a very low level, if at all.

The war had been underway for nearly seven years. The GOES had almost no funds for investment in new construction except that related to the war. There had been extensive capital flight, and many of the manufacturers working today had not yet made their investments in El Salvador. Even maintenance and repair work by government ministries was being deferred because of lack of funds.

The construction/reconstruction and even the demolition of earthquake damage funded by the U.S. and other donors has revived the industry and most of the contractors are in reasonable financial health. They have reorganized and retrained their work forces, and bought new or additional equipment.

The contractors' professional association, CASALCO, states that their members did not clear great profits from the program, but they are on their feet now and will be better able to do additional work in the future.

The CASALCO claim of limited profitability is deemed to be true, on average. A few contracts went into default and no doubt a few at the other end of the scale earned

good profit. But a number of factors would indicate these are exceptions, not the average.

Some contractors were so badly in need of work at the outset that they bid too low and were able to clear very little above cost.

The inflation rate and the changing exchange rate, since contracts were denoted and paid in local currency, had unpredictable effects on contract costs and were not fully compensated by the escalation clause, or formula, currently in use by the GOES.

A few individual contractors objected to awarding contracts to low bidders. The Association takes the position that award to the lowest responsive and responsible bidder is proper, but they stress the "responsible" bidder. As noted elsewhere in this report, pre-qualification of contractors was done hurriedly, and mistakes were made. CASALCO is at least partly correct in their observation on this score. As one contractor remarked, "We all learned an expensive lesson on this project, but it was worth it to eliminate corruption from the bidding".

The construction contractors complained about adequacy of design on some contracts, and believe strongly that better pre-qualification of designers as well as builders would benefit future projects. Again, their concern and observations are valid, as field experience during the life of the project showed.

CASALCO has submitted a number of cogent suggestions and requests for improving the construction contracting and implementing process in response to a questionnaire. A copy of that document has been provided to ERD. Most deserve consideration by GOES and USAID or any other external donor working in the host contract mode.

Suppliers of locally produced construction materials also responded to the challenge of the Project, although one manufacturer was affected negatively. The Project banned the use of any material containing asbestos from any Project funded construction. One manufacturer of corrugated asbestos-cement roofing has, for all practical purposes, gone out of business. The asbestos-cement sheets have been replaced by a similarly configured product of cement reinforced with vegetable fiber rather than asbestos, and manufacture of that substitute product has reached a relatively large volume.

Concrete block manufacturers and makers of concrete and clay floor tile thrived supplying contractors on this project, also.

In summary, construction contractors and component manufacturers are in better condition than they were in the fall of 1986, and the industry has made an indispensable contribution to earthquake reconstruction. As a group they have not become wealthy as a result of this project, but certainly some contractors and suppliers have profited more

than others. More importantly, the construction industry in El Salvador is ready to face the challenge of the National Reconstruction Program and is prepared to work under fair, impartial procedures in doing so.

E. PROJECT REFLOWS

All funds disbursed by GOES agencies in the form of loans are to be paid back into a special account. Under the terms of the Project Agreement covering this Project, those funds will be used, by joint USAID-GOES agreement, for further development projects in El Salvador (just as reflows from Project 0331 were used for purposes of this Project). It is impossible to say, at this early point, what the eventual amount of those reflows may be but they could constitute an significant source of onward project funding.

IX. UNINTENDED RESULTS

Most unintended results occurred in development of construction and management capability in both the private and public sectors. The Goal and Purpose set forth in the Project Paper and the explicit assumptions upon which the project design was based did not contemplate institutional development as a project output. This was to be an in-and-out project to repair, rebuild or replace facilities damaged by the earthquake. Institutional development occurred only to the extent that it was necessary for achievement of the project goal and purpose, or as result of doing the work.

Nevertheless, there was significant development:

- The General Directorate for Reconstruction developed into a viable organization. It developed the methodology and capability to manage engineering and construction not only for USAID funded projects but projects from other donors. The DGR was originally conceived to manage a loan from IBRD, but was only in an embryonic stage when it was selected to manage the USAID grant also. Under the project, it has gained the professional stature to continue with the IBRD program, and is in a position to be of great assistance in implementation of the National Reconstruction Plan.

- The consulting engineering and construction firms of El Salvador, which are in general staffed by very capable engineers and architects, were withering away due to lack of work when earthquake reconstruction began. Many of those firms gained experience and new vigor in performing the work required under this project. They too are now on a healthier footing and available for work on national reconstruction.

- A number of individuals have gained valuable experience in management, accounting, and in use of computers in engineering design, construction and financial management. Computer skills are relatively high in El Salvador, but for many of the individuals engaged in this project, those skills have been further developed and sharpened.

- As need for grant housing for earthquake victims of the lowest income levels became better defined, greater use of PVOs on self-help housing provided more housing for more low income people than was originally contemplated. As a result, both U.S. and local PVOs were developed into very effective organizations in El Salvador. One Salvadoran PVO in particular, Habitat Foundation, developed almost completely as a result of this project and has an excellent performance record.

- Both World Relief and CHF have organized Salvadoran PVOs, which will have capacity to carry on their work. The World Relief creation, or spin-off, entitled OPRODE, will be staffed by personnel who have worked with World Relief, and will have the capability to do similar self-help and social projects. World Relief itself indicates it will continue to work in El Salvador.

  The CHF will reconstitute its Salvadoran operation as a Salvadoran PVO composed of the existing CHF staff and facilities. It, too, has the capability to continue on projects of the type executed by CHF.

  Both of these new PVOs have developed as a direct result of organizational identity and experience gained during implementation of housing projects financed by the Earthquake Reconstruction Project. Both new entities are well positioned to make a significant contribution in the National Reconstruction Plan.

It was expected at the start of the project that the Earthquake Reconstruction Project would meet only about 10% of the total earthquake reconstruction costs, and less than 20% of the unfunded needs; that is, less than 20% of identified needs for which funds were not forthcoming from other donors. Funds from other donors, as it turned out, were less than originally estimated.

As the project progressed, it was possible to reprogram project funds from sub-sectors where needs were over-estimated (small business and housing loans) to other sub-sectors which were badly under funded (education, markets, self-help housing). By reprogramming and by judicious use of extra local currency generated by changing exchange rates, it was possible to meet a greater part of the need for reconstruction of schools, markets, self-help housing and community service facilities. These beneficial developments during the life of the project were not anticipated at the outset.

Earthquake damaged buildings not yet repaired are still standing unusable in San Salvador but they did not and do not meet the criteria or priority established for use of funds under this project. As the project comes to an end, very few needs meeting project criteria remain unmet.

In general, there remains a great need for low cost self-help housing, but a big majority of potential recipients of such housing now would not meet the definition of earthquake victims as established for project funding. However, this project leaves in place mechanisms by which those needs could be met under other programs if funding were provided. The capability clearly is an unanticipated and unintended but natural, result of the project.

One unexpected aspect of the project was the lack of interest by U.S. firms in participating in the construction. This lack of interest probably was due in part to the

wartime environment in which the work was done; in part to the relatively small size of the individual construction contracts. Whatever caused the lack of interest by U.S. firms, the result was that the entire construction program and nearly all of the engineering and architectural work was done by Salvadoran firms using Salvadoran management and labor. Thus the beneficial results for the Salvadoran construction industry were even greater than originally contemplated.

One other unintended result should be mentioned. Early on in the Project period USAID announced that it would not purchase or allow the use on Project-funded construction of any materials containing asbestos. The Salvadoran factory producing asbestos roofing went out of business shortly thereafter. Roofing in project-funded construction was a new (to El Salvador) product called Fiberlite which probably will be the new standard in the country.

X. GENDER ISSUES

The team's full reply to the extensive section on this topic in the scope of work will be found in an annex (Annex D) to this report. This was done both because of the necessary length of the response to that section and because the team was advised that the gender questionnaire and its response would serve an additional purpose, extrinsic to those of this evaluation itself, thus suggesting the desirability of a free-standing document.

In summary, it may be said that the team finds that gender considerations were not taken into account in planning or assessing this Project, which was seen as concerned wholly with the repair or replacement of physical structures destroyed by the 1986 earthquake. Some sensitivity to gender issues was shown during the implementation phase, as manifested by the addition of day-care centers to the housing projects financed under this program and the improvement of the pre-existing day-care centers in reconstructed markets.

Gender only came to the fore as an issue in this evaluation. And even here, a full answer to many of the questions asked - mainly those dealing with the Project's differentiated impact on women - could only have been answered fully (or as fully as possible given the lack of base-line data) by a social scientist devoting full time to that specific task. No such specialist was requested by the scope of work.

Notwithstanding the above, of those Project beneficiaries who, and with respect to those Project benefits that can be readily identified, women benefitted from the Project more than men. Owners of new homes constructed under the Project are at least 55% - and perhaps much more - of such homeowners. Market vendors - assuming they can be considered as beneficiaries (they can with respect to employment) are, as previously noted, upwards of 80% female. And those who shop in those markets are overwhelmingly women.

The team draws no conclusions from these findings but simply sets them out here for what they may be worth.

XI. PROJECT DESIGN AND PROJECT DESIGN MODIFICATIONS

The Earthquake Reconstruction Project was designed with the experience of the one year, $50.0 million Earthquake Recovery Project fresh in mind. That project was being successfully concluded under emergency procedures and had a major impact in relieving distress of earthquake victims.

The stated goal of the Reconstruction Project, originally funded at $75.0 million and authorized September 22, 1987, was to restore the standard of living for individuals affected by the disaster in order to maintain social and economic stability. The Project purpose was to assist the government and private sector of El Salvador to reconstruct and rehabilitate housing, vital infrastructure and businesses, as well as restore basic services particularly to those persons of lower income.

The goal and purpose remained unchanged throughout the life of the project. The only changes in the project, after funds were added in 1988, came as a result of experience and better understanding of needs and priorities. Those changes were in the amount of resources devoted to the various components (sectors and sub-sectors) of the Project, and in the greater use of PVOs in the housing sector.

In the team's view, the flexibility provided to the Mission with respect to refunding was another key to the success of this Project. Rather than having to "force funds through a straw" where anticipated demand did not eventuate or fund relatively lower-priority items where new, higher-priority needs were discovered, the Mission was free to move funds rapidly to respond to a dynamic, evolving situation. The final figures demonstrate this.

The Project was amended on 26 August, 1988 to increase funding by $23.0 million to a total of $98.0 million. Goal, purpose, the target population and the implementation strategy were not changed.

The project was specifically designed to be a one-shot, in-and-out, construction/reconstruction effort. No institutional development or social outputs were specifically targeted.

Expenditures were listed in twelve line items in the budget as revised in the 1988 Project amendment. That budget, and approximate actual expenditures in the twelve categories are shown below:

TABLE VII

Budget and Expenditures in US$ Millions

Component/Sub-Component	1988 Budget Millions	Approximate Expenditures to 1993[14]
1. Housing Credit	$ 30.0	$ 10.87
2. PVO Housing Activities	1.5	17.77
3. Relocation & Resettlement	9.0	8.26
4. Business/Soc. Service Credit	14.0	0.52
5. Public Markets	12.9	16.20
6. Public Health Facilities	3.6	4.32
7. Public Schools	12.4	30.76
8. Comalapa Highway Repairs	2.2	1.59
9. ANDA Eqpt. & Rapid Repairs	1.5	2.93
10. Project Support	4.8	4.23
11. Audit & Financial Management	1.0	0.54
12. Inflation & Contingency	5.1	0.01
Totals	**$ 98.0**	**$ 98.0**

Source: USAID/ERD Programming Documents.

In 1988, when the funding level of the project was raised to $98 million, an estimated unfunded shortfall for earthquake reconstruction of $756.12 million existed after all known funding including the total of all U.S. and other donor grants was allocated. The estimated shortfalls in the various sectors were as follows:

[14] The final expenditures may vary slightly as reprogramming and liquidations are made final during the last weeks of the project

	In US$ Millions, Unfunded Needs
Education	$ 47.71
Health	2.20
Housing	207.24
Public Buildings, Including Markets	85.50
Highways	12.90
Small Business	212.60
Public Services	187.97
TOTAL	**$ 756.12**

The demand for loans for both small business and housing did not materialize as it had under the Recovery Project, and as it was expected to continue. Therefore, funds were reprogrammed to the other sectors which met project criteria, with the emphasis on education (school reconstruction) and self-help housing for very low income households, earthquake victims unable to qualify for loan financing.

The changes after 1988 consisted of reprogramming actions to meet positively identified priority needs to construct sub-projects which met project criteria.

The major reprogramming that reconfigured the project was issued in PIL No. 41 on May 29, 1989. This document recognized the change in perceived needs in the earthquake reconstruction process and reallocated funds between the various components of the Project. While minor reprogramming actions had shifted funds within the Project prior to May, 1989, it was PIL-41 that officially recognized the decreased demand for loans and the increased need for funding of self-help housing and schools, and as a matter of policy increased the use of PVOs in the housing effort.

Funds in lesser amounts have been reprogrammed between components as costs were incurred or more accurately determined, as indicated earlier in this chapter. But the major revision was made by PIL No. 41 when the Project was approximately eighteen months old.

TABLE V

Reprogramming Action, PIL No. 41
US$ Million

Component/Sub-Component	Financial Plan As of May, 1989	Financial Plan Approved in PIL No. 41
Housing Credit	$ 29.00	$ 13.89
PVO Housing Activities	1.50	7.89
Relocation & Resettlement	10.00	12.15
Business/Social Serv. Credit	14.00	0.50
Public Markets	12.90	12.90
Public Health Facilities	3.60	3.60
Public Schools	14.40	28.90
Comalapa Highway Repairs	2.20	2.20
ANDA Eqpt. & Rapid Repair	1.50	3.50
Project Support	4.80	5.13
Audit & Financial Management	1.00	1.00
Inflation & Contingency	3.10	6.3[illegible]
Totals	**$ 98.00**	**$ 98.00**

These project changes through reprogramming evolved from the management strategy for the project. The strategy of project management was to produce with available funds the maximum output that supported project the goal and purpose by building high priority sub-projects which met project criteria:

- Beneficiaries must be victims of the 1986 earthquake.
- Construction must repair or replace facilities and/or services damaged or destroyed by the earthquake.
- Priority must be given to earthquake victims of low and very low income.

It was expected that unmet needs would remain when the project was completed, but it was expected that those needs eventually would be met by other donors, lenders, and the private sector.

- Some earthquake damaged buildings still stand in San Salvador. Part are in the private sector; part are being rebuilt now by other donors.

- The San Salvador water supply and distribution system still is inadequate to meet fully the needs of all citizens of the city, including earthquake victims, but improvements have been made and construction of major expansion is underway under a BID loan.

- There is still a large population with unmet needs for low cost and self-help housing nation wide. Parts of that population probably are families who would qualify as earthquake victims but who for any number of reasons did not participate under the project and are not identified.

Overall, however, most of the affected facilities eligible for reconstruction under this project have been rebuilt, and most of the eligible beneficiaries who sought help or were otherwise identified have been served. In the case of low cost housing recipients, almost all are now living in better housing and are served by better utilities and community services than they were before the earthquake.

A number of sub-projects in all components and sub-components were inspected. All were found to be consistent with the project goal and purpose. Overall design and construction of facilities was considered to be of good quality. Such design deficiencies as were noted in sub-projects for which contracts were awarded related to difficulties contractors had in following the intent of the designer, and not with the quality of the facilities which resulted. All of the construction implemented under the project should make a positive and permanent contribution to the economic and social life of El Salvador.

In retrospect, the time of project performance as estimated in the original project documents was unrealistically short. It is common to include contingency factors in cost estimates of all sorts of projects, but seldom in making a realistic estimate of the time required to do the work under field conditions. More important, however, was the failure to provide lead time in the awarding of construction contracts. From the time a decision is made to build a facility, several functions much be performed in sequence: Prepare a solicitation package for proposals from design engineer/architects; advertise for proposals; receive and evaluate proposals; select a contractor and negotiate a consulting contract; design the facility; prepare bid documents; request and receive bids; award the construction contract. As noted above, these steps must be done in sequence, and elapsed time from a decision to build to award of construction will be at least five months for simple projects and can run to a year or more for large of complex projects.

The numbers of engineering and construction contracts awarded under this project, which themselves ran in sequence and not always concurrently, assured that the time of performance of the construction would be prolonged.

In short, the PACD's established and as extended under this project have been less than optimum from the outset.

XII. LESSONS LEARNED AND SOME RECOMMENDATIONS FOR THE FUTURE

A. LESSONS LEARNED

- It would be little short of fatuous to pass back to AID the "lesson" that experienced, dedicated and capable project managers are a key ingredient in project success. Suffice it to observe that in this project the Project Manager, who amply demonstrated the qualities set out above, was the most important single factor in producing an outstanding result.

- Closely related to the above is the fact that the Project Manager was in charge of this project from start to finish. Continuity in project management also is an extremely important factor in project success as was demonstrated in this case, in the team's opinion.

- In El Salvador as well as in more countries than may be generally recognized there is a good supply of high-level technical and professional expertise available to be tapped, organized, directed and motivated. The constraints on the performance of national personnel in project implementation often are more institutional than personal. Properly organized and directed local national personnel can play key roles in project implementation and can perform project management jobs presently often restricted to U.S. Direct Hires. The superb performance of the financial manager and project engineers on this project amply prove this point, in the team's view.

- Another of the "secrets" of this project's success was the day-to-day, on-the-ground style of management adopted by project management. This was augmented by the instant access to detailed sub-project status information provided by AID presence on the Monitoring Committees. No paper reporting system will ever match this style for effective, agile project management that can spot problems and move on them quickly.

- Host government project managers and implementors work in a cultural and political environment that can inhibit their performance (from a strictly technical point of view). An acceptable way must often be found to insulate them from some aspects of that environment (e.g. social or political pressures brought to bear on procurement). Steps taken under this project to maintain the integrity of the contracting process are a case in point.

- That having been said, sight should never be lost of the fact that national personnel know their environment and, where allowed to, can work in it more effectively than can U.S. Direct Hires. USDH personnel must learn to be very

sensitive to the social and political imperatives impacting on their host government counterparts and not to contravene those imperatives blindly or gratuitously. Management of this project showed great sensitivity to these issues. (The need for that sensitivity is another strong argument for hiring and relying on high level national personnel in USAID project management positions.)

- Delegation of maximum flexibility to Missions in project management, particularly in highly fluid situations like disaster relief and follow-up operations, pays off in quality performance. This was the case in the present project.

- PACD's for this project were unrealistically short when originally established and must have been seen to be so at that time, in the team's opinion. Accordingly, the team can only speculate that project completion dates were based on extrinsic factors, not on an objective appraisal of the situation facing project management at the time. One result has been higher than necessary costs on some sub-projects as contractors work around the clock to meet contract deadlines based on the PACD. Once a decision is made to go ahead with a project, even a "fast-in-and-out" type disaster recovery project, every effort should be made to allow - up front - a reasonable period for project execution. There are better ways of assuring expeditious implementation than unrealistically short termination dates.

- Another lesson demonstrated - or re-demonstrated - by this project, in the team's view, is that large, multi-sectoral projects impinging on the specialty areas of several USAID technical offices work best under a single manager with over-all responsibility for implementation of the whole project. As was noted earlier in this report, the "Project Coordinator" model was tried early on in this project with limited success and unproductive duplication of effort.

- Particularly on large, tightly-scheduled projects involving substantial contracting and procurement, a project financial manager, working directly with the project manager, is a model worth replicating. The team believes there is ample evidence to show that this device saved a good deal of time and also provided the project manager with another source of "instant information" on implementation status.

- The experience on this project demonstrates the value of concurrent audits and pre-award survey, especially on large, diverse projects with multiple implementing agencies, some of whom may not realize the importance of meeting AID requirements for management of funds. Not only are difficulties corrected early, before unsatisfactory practices become ingrained, but project managers and implementors alike can save the time involved in responding to what can become major audit findings at the end of the year. They can more productively devote their time to project management and implementation.

ANNEX A

BIBLIOGRAPHY

USAID Project Documents

Bi-Monthly Report File, June-July 1991, August-September 1991, October-November 1991, December 1991-January 1992, February-March-April-May 1992, June-July 1992, August-September 1992

Cooperative Housing Foundation Grant File
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Grant Agreement File
Habitat Grant File
Host Country Contracts File
Inter-Institutional Agreement FNV/BCR/GOES File
Newspaper Clippings Volume I through V
Project Authorization File
Project Correspondence Files, FNV, FONAVIPO
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Semi-Annual Report for October 31, 1989-March 31, 1990
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Other USAID Documents

The Women of El Salvador - Their Roles, Needs, and Constraints in the Primary Sectors of Development (The "WID Report"); August, 1991
Brady, M: Increasing USAID Project Benefits to Women; September, 1991.
Brady, M: Women of Scarce Resources; September, 1991

DGR Project Documents

DGR Handbook

ANNEX B

PEOPLE INTERVIEWED

USAID

John Sanbrailo, D/USAID
John Lovaas, DD/USAID
Charles C. Brady, Chief, ERD
Rosa Maura de Mayoraga, Financial Manager, ERD
Karen Freeman, Prj. (Evaluation Officer)
V. LaFoy, Prj. (Women in Development Officer)
Ing. Leonidas G. Delgado - Education Component Manager
Ing. Rafael J. Callejas
Ing. Ricardo A. Mancía
Ing. Carlos Tobar - Supervisor

Government of El Salvador

Ministerio de Planificación y Coordinación del Desarrollo Económico y Social (MIPLAN)
- Lcda. Mirna Liévano de Marques - Ministro de Planificación y Coordinación del Desarrollo Económico y Social

Dirección General para la Reconstrucción (DGR)
- Ing. Enrique Vega Gonzalez, Director
- Ing. Alvarino Osorio - Jefe Dpto. Técnico
- Ing. Fernando Olmedo
- Ing. Cesar Tablas
- Ing. Geovanny Cruz - Supervisor
- Arq. Guillermo Cartagena - Supervisor
- Ing. Miguel Sobalvarro - Supervisor
- Ing. Mirna Gloria Rodríguez - Supervisor

Administración Nacional de Acueductos y Alcantariallados (ANDA)
- Ing. Raúl Rodríguez Rivera - Gerente de Proyecto
- Ing. Salvador Avila - Asistente

Ministerio de Educación
- Ing. Hamlet Edgardo Villeda - Coordinador CREP
- Ing. Yanira de Contreras - Supervisor CREP
- Ing. Elsa de Guzmán - Supervisor CREP
- Tec. Marlene Ayala - Supervisor CREP

Ministerio de Salud Pública y Asistencia Social (MSPAS)
- Arq. Ernesto Hirlemann

Secretaria Nacional de la Familia
- Doña Margarita de Cristiani

Lic. Sonia Ventura
Dra. Geraldina Castillejos
Ruth de Manzano
Lucrecia de Suster

Banco Central de Reserva (Central Bank)
Lic. Roberto Vaquero, Colaborador Ejecutivo al Presidente

Corte de Cuentas (Court of Accounts)
Lic. Dora Delmy Palazios, Head of unit in DGR
Ing. Ena Avalos Martell, Technician
Lic. Jaime Lagos, Finance
Ramón Ernesto Garcia Navas, Contract Analyst
Adolfo Pastor Amaya, Contract Analyst

FONAVIPO (Fondo Nacional de Vivienda Popular)
Arq. Benavides
Irma Alicia de Vides

San Salvador Mayor's Office
Arq. Reina E. García
Rafaél Santiago Melendez, Administrator, San Miguelito Market.
Santos Rodríguez López, Administrator, Ex-cuartel Market

Private Voluntary Organizations

Habitat
Arq. Ernesto Barraza - Director Programa GOES-AID
Gladys de Batres - Directora de Administración y Financas
Abram Gonzales - Jefe, Supervisión
Patricia Fortín - Jefe de Proyecto

Cooperative Housing Foundation (CHF)
Paul Gabele, Country Director
Flor de María, Coordinadora de Promoción
Ing. Mabel de Nosthas - Coordinadora de Programa
Herbert Alexander Armas - Coordinador Técnico

World Relief
Douglas W. Bassett, Director
Arq. Maira Quintanilla de Ayala, Project Director
Ing. Hilda Romero de Bojorquez, Project Director
Ing. Fábio Wilfrido Alfaro, Coordinador of Housing and Development.

Others

Members of the *Directivas* and property owners of the communities of:
22 de Abril

Lomas de San Bartolo
La Esperanza
San Francisco
El Milagro
San Sebastian (Zacamil)
Los Proceres (Zacamil)
Enmanuel (Zacamil)
Tikal

Members of the Directivas of the Vendor's Associations of:
San Miguelito Market
Ex-Cuartel Market

AHORROMET (Savings & Loan Assoc.)
Lic. Julio Rodriguez
Lic. Gerardo Arévalo Mesa

CASA (Savings & Loan Assoc.)
Harold Hill, Pres.

CASALCO
Ing. Benjamín Trabanino, President
Ing. Carlos H. Cromeyer M., Ex-President
Ing. Heli Amaya, Director
Ing. L. Roberto Hernández
Ing. Rogelio Sanchez

ANNEX C

SITES VISITED

Housing

10 de Octubre, San Marcos
La Selva, Ilopango
Tikal, Apopa
San Esteban
San Marcos
San Francisco
El Milagro
Lomas de San Bartolo
La Esperanza
Los Proceres (Zacamil)
Enmanuel (Zacamil)
San Sebastian (Zacamil)

Schools

TERCIFRAMOR/España
TERCIFRAMEN
CENAR
José Simeón Cañas
Hogar del Niño, San Jacinto
José Matías Delgado
Gustavo Marroquín
Reparto Valle Nuevo
Agustín Linares
San José No. 2
San Antonio Soyapango, Agua Caliente
Milingo
San Antonio Las Vegas
Devine Providence

Markets

Sagrado Corazón
Tinetti
San Miquelito
Ex-Cuartel

Hospitals

Hospital Bloom

Others

Laboratorio Central

ANNEX D

Gender Issues

I. Design, Appraisal and Implementation Stages

A. Were the impacts of the earthquake on, and the interests and roles of the victims differentiated by gender during these stages?

B. Was an attempt made to assure participation by women, as well as men, in these processes? How?

Team Findings:

The team found no indication of any attempt at gender differentiation or disaggregation of data at either the design or appraisal stage. Damage assessment and project design and appraisal were based on estimates of physical damage, e.g. housing units destroyed or damaged. Given the nature of the project, and even without considering its urgency and the lack of any gender disaggregated data (see Section III below) or bibliographies of socio-economic studies that might have been consulted had there been time to do so, the team finds it difficult to conceive of an alternative approach to project design and appraisal that might have been more gender sensative.

Some thought was given to gender considerations during the implementation of the project. This resulted, for example, in the expansion and improvement of day care centers *(guarderías)* in the reconstructed/rehabilitated markets and the addition of *guarderías* to plans for a number of housing projects.

If there was a problem in all of this it was not so much *gender* insensitivity, in the team's opinion, as it was *people* insensitivity. Particulary in the housing components of the Project, the team believes that more attention should have been paid from the start to the human and community aspects of the housing to be constructed.

II. Effects and Impacts

A. What were the effects - positive and negative - of the program on women's (compared to men's) access to income, education and training and with respect to workloads, role in the household and in the community and health conditions?

Team Findings:

Given the lack of base-line data (see response to III below) it would be impossible to answer these questions with any degree of specificity in any event. To repeat the point made above, however, this project was not designed to bring about changes in the factors set out in the question, but simply to restore the affected population to the status quo ante with respect to housing and urban physical infrastructure.

In fact, however, for a significant number of earthquake victims - principally the new property owners in the over 7,000[15] housing units constructed under the project of whom women constitute upward of 55% - the physical circumstances of their lives were improved. The positive impact of clean water and indoor plumbing on the health of the populations to whom these were not available before the earthquake may fairly be assumed, in the team's view.

Mention also might be made here of the long-range economic benefits of the housing component of this Project on the women (as well as men) newly possessed of land titles. Those titles can serve as a future source of capital. Additionally, mortgage payments are believed to be well below the amounts previously paid for rent by those who came from rental units. The team believes that it would be fair to assume that these benefits accrue to women in direct proportion to their relative numbers as property owners.

On the negative side, a number of the new communities constructed under the Project are considerably further from usual places of employment/employment search than were many of the sites in which the relocated populations lived prior to the earthquake. Thus, additional transportation costs are being incurred by these groups. It should be added, with respect to this "impact", that mention of it was only made in response to team questions; it was never raised spontaneously as a problem by the affected groups, who were not at all reticent about raising other perceived problems. Disaggregating the consequences of this (transportation cost) factor by gender would have required a level of effort

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[15]. Elsewhere in this study the figure of 7,900 families is used as the approximate number of beneficiaries of new and reconstructed homes under the project. The data that we have seen on female ownership of houses constructed under the Project, however, do not cover this entire group. The figure used here is an estimate based on the number of self-help houses constructed - 6,186 - to which the "over 55%" figure does apply plus the owners of the 1,714 houses constructed with BID financing, believed to be a similar socio/economic group.

not contemplated under the scope of work of this study. It is the team's impression, however, that relatively more men than women have to travel from the community to seek or engage in paid employment. There appeared to be fewer employment opportunities for men than for women at the project sites.[16]

Training initiatives presently underway or contemplated by the *Secretaria Nacional de la Familia* in the new housing projects are focussed on women. They include training in such skills as dress-making and the processing and weaving of bamboo into saleable items and are designed to be income-enhancing. (These activities were simply noted by the team; they were not evaluated since they are not funded under the Earthquake Reconstruction Project.)

Women appear to be represented on the *Directivas* (the elected governing councils) of the new communities constructed under the project in numbers even beyond their preponderance as property owners although most of the Presidents of these groups are men. (The team did encounter at least two women presidents of *Directivas*, however.) Again, given the lack of base-line data, it was impossible to compare this situation with what existed prior to the earthquake.

With respect to the markets reconstructed or rehabilitated under the Earthquake Reconstruction Project, the vast majority of both stall lessees and customers are women. In the retail markets, the team would estimate the proportion of women lessees as upwards of 90%.[17] In La Tiendona,

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[16]. The team was told by members of the communities that men in the new communities worked mostly in the construction trades or as gardeners or watchmen. All of these jobs required travel to work sites. Women worked out of the communities as domestic servants or market women; they worked in the communities as operator/owners of small markets, door-to-door vendors of fruits and vegetables (which did require transportation to markets to buy stock), hair-dressers and seamstresses.

[17]. These estimates, as well as those that follow, are based on impressions gained during site visits rather than on specific data sets. Data do exist, both in the case of market-stall lessees and in the case of mortgagees under the project-financed housing projects, in the sense that in both cases the individuals are listed by name in appropriate documents. However, no general attempt has been made to come up with overall, gender-disaggregated numbers in either case. The team did get some sample data on mortgagees and community *directivas*, which are set out as attachments to this Annex, but was unwilling to burden project personnel, who were in the last stages of project close-out as this evaluation was being conducted, with requests for full data sets.

the wholesale market, female lessees are estimated to be at least 65 to 70%. In the retail market of Ex Cuartel, a large part of which is devoted to tourist and artesanal merchandise, men may represent as many as 25 to 30% of lessees. These women were "benefited" by the project in the sense, again, of having been restored to the status quo ante. Outside of that, which was the purpose of the Project, the team discerned no other project impacts, either positive or negative, on this group of women.

Interviews of women and men in the housing units constructed under the Project and of market women in the reconstructed markets did not elicit any comments indicating changes, positive or negative, in their workloads or in their household roles. All respondants, when asked directly, said there had been no changes in those respects.

The team is unable to draw any conclusions as to impact by gender of the reconstruction/rehabilitation of infrastructure (streets, water and sewerage, electricity), schools (public and private), or hospitals and clinics (public and private) financed under this Project.

B. Were gender issues taken into account in the evaluation stage?

Team findings?

This questionnaire, which is part of the scope of work for this evaluation, is an attempt to arrive at some conclusions regarding the treatment of gender issues in the Project.

C. Were significant gender factors overlooked at the appraisal stage?

Team findings?

As already indicated, gender factors were not taken into account at the appraisal stage of this project.

One additional, potentially rich data source might be mentioned here. The PVO's engaged in the housing component of the Project carried out "socio-economic studies" These actually are one to two page documents on each potential homeowner designed to demonstrate that individual applicants were eligible for housing, and housing loans, under the terms of the Project. These individual studies show age, sex, marital status, number of children (at least numbers living in the house), occupation, years in present occupation, income, sources of income and education. At the time of this evaluation copies of those documents were in the possession of the PVO's (although FONAVIPO might have the originals).

III. Data Availability

A. Were gender-specific data available for each of the stages?

1. Design
2. Appraisal/approval
3. Implementation
4. Monitoring
5. Evaluation

Team findings:

Many Mission files, including most of the library materials, were lost in the earthquake or were packed up and stored in the salvage operation that followed and have never been recovered. Therefore, there is no real way of knowing what sorts of data might have been available to the Mission when the Project was being planned or appraised or thereafter. The team could find no Mission personnel with any specific recollection of what, if any, gender-specific data might have been available in 1986 or 1987. Some materials were made available to the team during the evaluation (see Bibliography, Annex A). With further respect to the availability of gender disaggregated data, see footnote 2. Some interesting materials were prepared during the period of project implementation, some inspired in part, at least, by suggestions from Project personnel.[18]

IV. Sustainability

A. How did women's integration into this program affect the sustainability of program outcomes? Were outcomes more sustained (or less) when women were taken into account?

Team findings:

This question clearly is designed for "normal" development programs in which designed project outcomes involve institutional or behavioral changes. No such changes were sought in this project which dealt only with the rehabilitation or reconstruction of physical facilities damaged or destroyed in an earthquake. As already pointed out above, however, the team believes that this approach left something to be desired with specific respect to the housing components of the Project. Attention should have been paid from the design stage onward to the impact of the project on the

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18. See Brady, Martha F., "Women of Scarce Resources", September, 1991, part of the USAID "WID Report".

renters/owners of the new housing constructed under the Project. The team suggested to Mission personnel that they should consider an effort now to help people living in the new Project-constructed communities to organize to start solving their own problems.

Attachments

1. Members of the *Directivas* of some condominiums under the CHF Phase II *Meson* project.
2. Breakdown by gender of title-holders in a selection of Habitat projects.

NOMINA DE DIRECTIVOS DE CONDOMINIOS

PROGRAMA DE RECONSTRUCCION DE MESONES FASE II	
CONDOMINIO SAN ANTONIO	
JORGE IVAN ORTIZ	PRESIDENTE
MARIA GENOVEVA FLORES	VICE-PRESIDENTE
RAUL ERNESTO CASCO	TESORERO
DORIS ELIZABETH RIVAS	SECRETARIA
TRANSITO OVIDIO CAMPOS	SINDICO
DANIEL CASTRO BALCACERES	VOCAL
CONDOMINIO SAN VALENTIN	
ALVARO ERNESTO GIRON	PRESIDENTE
JORGE ALBERTO GARCIA	VICE-PRESIDENTE
ALBA VIRGINIA BONILLA	TESORERO
CARLOS ALBERTO APARICIO	SECRETARIO
CONDOMINIO EL MILAGRO	
DAVID HERNANDEZ AYALA	PRESIDENTE
GLORIA ALICIA JIMENEZ	VICE-PRESIDENTE
LORENA GLORIA DE IRAHETA	TESORERO
ANA VILMA RIVERA SANCHEZ	SECRETARIA
JESUS QUINTANILLA	SINDICO
ANGELA CLARA DE MEJIA	VOCAL
VILMA ESTELA SANCHEZ	VOCAL

CONDOMINIO LAS FLORES	
JUAN ANGEL REYES	PRESIDENTE
AMINTA MARIBEL GUIROLA	VICE-PRESIDENTE
SALVADOR ALAS MARTINEZ	TESORERO
JOSE ROBERTO CAÑENGUEZ	SECRETARIO
FLOR DE LIZ CHAVEZ	VOCAL

PROGRAMA SAN BARTOLO

COMUNIDAD LA ESPERANZA	
EVARISTO QUINTANILLA	PRESIDENTE
EDGARDO PORTILLO	VICE-PRESIDENTE
IDALIA VALLADARES	SECRETARIA DE ACTAS
ANGEL CHEVEZ CHAVEZ	PRO-TESORERO

COMUNIDAD LOMAS DE SAN BARTOLO	
CARLOS CAMPOS	PRESIDENTE
SANTOS RODRIGUEZ	VICE-PRESIDENTE
CARLOS MELENDEZ	SECRETARIO
JOSE RODRIGUEZ	TESORERO
JOSE CANDELARIO VILLATORO	SINDICO
JOSE ANTONIO MARTINEZ	VOCAL
JUSTINIANO HERNANDEZ	VOCAL
RODRIGO GONZALEZ	VOCAL

La Tiendona

Población Total = 120 Familias
Beneficiarios Mujeres = 61
Beneficiarios Hombres = 59

San Sebastian - 1o de Mayo

Población Total = 174 Familias
Beneficiarios Mujeres = 110
Beneficiarios Hombres = 64

San Sebastian

Población Total = 117 Familias
Beneficiarios Mujeres = 72
Beneficiarios Hombres = 45

URB.La Selva

Población Total = 407 Familias
Beneficiarios Mujeres = 334
Beneficiarios Hombres = 73

Enmanuel

Población Total = 354 Familias
Beneficiarios Mujeres = 253
Beneficiarios Hombres = 101

El Modelo

Población Total = 148 Familias
Beneficiarios Mujeres = 72
Beneficiarios Hombres = 76

Trujillo

Población Total = 114 Familias
Beneficiarios Mujeres = 72
Beneficiarios Hombres = 42

La Vega

Población Total = 37 Familias
Beneficiarios Mujeres = 22
Beneficiarios Hombres = 15

CONDOMINIO SAN FRANCISCO	
PEDRO SALVADOR SANCHEZ	PRESIDENTE
JOSE FREDIS YANEZ	VICE-PRESIDENTE
LIDIA MARGOTH PINEDA	TESORERA
ANA DEISI ALFARO	SECRETARIA
ANA ANGELA AGUIRRE	SINDICO
MARIA JOEL HERNANDEZ	VOCAL
ROSA MARIA FLORES	VOCAL
CONDOMINIO SAN ESTEBAN	
BERTA MARINA DE RIVAS	PRESIDENTE
FRANCISCO PREZA NOLASCO	VICE-PRESIDENTE
SONIA ESCOBAR DE LOPEZ	TESORERA
MARIA INES GARCIA	VOCAL
CONDOMINIO SAN MARCOS	
CARLOS VENTURA	PRESIDENTE
WILLIAM BEJARANO	VICE-PRESIDENTE
JUAN PABLO MOLINA	TESORERO
LETICIA DOMINGUEZ	VOCAL
EDITH MOLINA	VOCAL
CONDOMINIO SANTA MARIA	
FIDENCIO MOLINA COTO	PRESIDENTE
ELIZABETH RIVERA	VICE-PRESIDENTE
ADELA DEL CARMEN DIAZ	TESORERA
ANDRES ANTONIO VILLALOBOS	VOCAL

22 de Abril

Sector El Milagro

Población Total	= 301	Familias
Beneficiarios Mujeres	= 181	
Beneficiarios Hombres	= 120	

Sector Nueva Esperanza

Población Total	= 116	Familias
Beneficiarios Mujeres	= 56	
Beneficiarios Hombres	= 60	

Raul Rivas Vasquez

Población Total	= 147	Familias
Beneficiarios Mujeres	= 132	
Beneficiarios Hombres	= 15	

San Luis III

Población Total	= 121	Familias
Beneficiarios Mujeres	= 95	
Beneficiarios Hombres	= 26	

ANNEX E

THE COURT OF ACCOUNTS

This serious implementation problem has been of great concern to the GOES and the USAID for some time. In 1986, the USAID contracted Price Waterhouse (PW) to conduct a study of the CA's operations. PW reported that the CA's fiscal control procedures were cumbersome, inefficient, and of little real value. PW further reported that the CA had an excessive number of employees, few of whom had the necessary skills to perform adequately; no employee training program; and an antiquated organizational structure.

As a result of the 1986 study the USAID, in 1987, contracted PW to develop and implement a modernization program within the CA, including measures to address the deficiencies found in the previous study. Under this contract PW provided technical assistance, including staff training, to the CA. PW also assisted in creating a planning office in CA and in drafting new legislation. The proposed legislation would have replaced the pre-audit process with an integrated financial management and auditing system in the implementing agencies with post audit oversight by the CA.

In 1988 the USAID included a component entitled "Goes Program Monitoring and Control" in its Technical Support, Public Analysis and Training Project. This component called for providing a combination of technical assistance and training to improve financial management and control systems in GOES institutions involved in the oversight, monitoring and auditing of AID bilateral and local currency generated resources. Two institutions were of particular interest, the CA and the Ministry of Finance (MOF). The MOF is responsible for budgeting, cash management and accounting for public funds. The CA is responsible for auditing such transactions.

During 1991 and 1992 the GOES and USAID took several important steps to begin the process of developing and implementing the financial management system that was envisioned in the 1988 Technical Support Project.

The GOES enacted legislation in 1991 mandating modernization, decentralization and standardization of its accounting system. Also in 1991, USAID contracted KPMG Peat Marwick to assist the GOES in overhauling its tax system.

In February 1992, USAID executed a $3 million contract with KPMG, Peat Marwick to provide technical assistance and training to the Ministry of Finance and the Treasury. This contractor is assisting the GOES in the design and implementation of the long awaited integrated financial management and auditing system.

Finally in October 1992 the USAID contracted an auditing consultant to assist the CA in changing over from a pre-audit to a post audit concept for reviewing GOES operations.

ANNEX F

Earthquake Reconstruction Project Evaluation

Immediate relief assistance was provided in a grant of $300,000 by the Office of Foreign Disaster Assistance (OFDA), a branch of the United States Agency for International Development (USAID). The OFDA also deployed its Regional Disaster Office from Costa Rica to El Salvador, providing both technical assistance and sophisticated equipment which enabled El Salvador to communicate with the outside world. To complement these resources, the U.S. Ambassador to El Salvador used his discretionary fund to provide an additional $25,000 for emergency shelter in the form of lumber and sheet roofing.

Early rescue efforts were largely bilateral, U.S. and El Salvador, but within days resources were extended from numerous countries throughout the free world.

THE EARTHQUAKE RECOVERY PROGRAM, 519-0331, ($50,000,000)

When the earthquake struck, it compounded the serious social, economic, political, and military problems facing El Salvador and added heavy requirements to an already overextended government.

Within days, the U.S. Congress appropriated $50 million in recovery assistance. Administered by USAID, the Earthquake Recovery Program helped the Government become operational again by providing temporary solutions in the period between the relief measures and permanent reconstruction. The program accomplished the following:

* 8,000 families received credit for rebuilding their homes;

* 3,300 small businesses were re-established;

* Over 36,400 families received building materials to erect temporary shelters or move to safer and more hospitable areas;

* Basic public services were restored;

* 724 classrooms were constructed, and another 240 classrooms were reconstructed;

* 118 major infrastructure projects including temporary hospital wards, operating rooms, warehouses, and buildings for critical government programs were built; and

* 29 medium-scale infrastructure projects to rehabilitate low-income communities;

* 127,000 cubic meters of rubble were removed from the streets of San Salvador, generating approximately 900,000 person-days of employment.

Immediate relief assistance was provided in a grant of $300,000 by the Office of Foreign Disaster Assistance (OFDA), a branch of the United States Agency for International Development (USAID). The OFDA also deployed its Regional Disaster Office from Costa Rica to El Salvador, providing both technical assistance and sophisticated equipment which enabled El Salvador to communicate with the outside world. To complement these resources, the U.S. Ambassador to El Salvador used his discretionary fund to provide an additional $25,000 for emergency shelter in the form of lumber and sheet roofing.

Early rescue efforts were largely bilateral, U.S. and El Salvador, but within days resources were extended from numerous countries throughout the free world.

THE EARTHQUAKE RECOVERY PROGRAM, 519-0331, ($50,000,000)

When the earthquake struck, it compounded the serious social, economic, political, and military problems facing El Salvador and added heavy requirements to an already overextended government.

Within days, the U.S. Congress appropriated $50 million in recovery assistance. Administered by USAID, the Earthquake Recovery Program helped the Government become operational again by providing temporary solutions in the period between the relief measures and permanent reconstruction. The program accomplished the following:

* 8,000 families received credit for rebuilding their homes;

* 3,300 small businesses were re-established;

* Over 36,400 families received building materials to erect temporary shelters or move to safer and more hospitable areas;

* Basic public services were restored;

* 724 classrooms were constructed, and another 240 classrooms were reconstructed;

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The City of San Salvador was reopened to pedestrian and vehicular traffic. Power was restored and work on other basic services was launched. With recovery complete by late 1987, San Salvador was ready to begin reconstruction.

THE EARTHQUAKE RECONSTRUCTION PROJECT, 519-0333
($98,000,000 + $7,000,000 IN REFLOWS)

In 1988, the Government of El Salvador embarked on an extensive reconstruction effort. Large investments were made in major infrastructure for permanent reconstruction and new construction. Credit was made available for the restoration of housing, private sector health, education facilities, and small businesses. To these ends, USAID contributed $75 million from FY 1987 resources and an additional $23 million in FY 1988 supplemental funds. To augment these funds, $7 million in reflows from the credit lines in the Recovery Program were recaptured and reinvested in a number of high priority, but unfunded, earthquake needs.

The Earthquake Reconstruction Program assisted the Government of El Salvador and the private sector in reconstructing and rehabilitating housing, schools, health facilities, and vital infrastructure. Funds were also used to re-establish small businesses and private educational institutions, particularly those benefitting lower-income groups affected by the earthquake.

The Earthquake Reconstruction Program consisted of two broad categories of investment: credit and infrastructure replacement. Under both categories a number of areas were addressed:

- Public school reconstruction;
- Public market reconstruction;
- Public health and medical facility reconstruction;
- Public services and basic infrastructure reconstruction: roads, streets, bridges, sidewalks, and public utilities such as potable water, sewage and drainage systems, and the provision of electricity;
- Housing; and
- Credit lines for small businesses, health, and educational institutions.

Public School Reconstruction ($30,300,000)

The earthquake damaged virtually all public schools in San Salvador. The majority were completely destroyed and had to be rebuilt. Initial school construction began during the Recovery Program and was directed toward temporary solutions, something to serve until demolition, design, excavation, site stabilization, and new construction could begin. Rudimentary classrooms with concrete floors, steel framing, and composition walls and roofs were erected. Dubbed "instant schools" by the World Bank, these became classrooms for thousands of children while permanent structures were developed.

Both governments placed high priority on education and dedicated $30.3 million to construct permanent schools. Today 2,210 new classrooms are operating in some 205 locations around the City. The replacement of damaged school furniture is also part of this activity.

Public Market Reconstruction ($16,300,000)

Most of the city's public markets were damaged beyond safe occupancy. Not only are these markets the average citizen's "super market," but they also provide work for some 800,000 people as vendors, suppliers, food handlers, and transporters of food and other staples. Moreover, markets are crucial to the masses of San Salvador because they live without household refrigeration and must buy perishable food daily. It was clear from the beginning that eight of the major markets would have to be completely rebuilt. This posed a major challenge as markets had to continue "business as usual" while site stabilization, demolition, and reconstruction were carried out.

To meet this challenge, temporary stalls were built in the streets and vendors and goods were moved into them. Streets were closed and public transportation was rerouted as business continued.

Public Health and Medical Facilities ($3,500,000 + $1,400,000 in Reflows)

The most severely damaged public health facilities were those that served the masses of Salvadoran people: the Maternity Hospital, the Children's Hospital, the Gynecological Center, the Respiratory Hospital, the Central Laboratory, the School of Nursing, and the Institute for Cerebral Palsy. All of these facilities were rebuilt under USAID earthquake assistance.

Again, the USAID-GOES approach was to create temporary structures that could serve the city's daily medical needs while longer-term reconstruction was planned and staged. As construction progressed, patients were attended by medical personnel in tents, parking lots, and open fields throughout the City. Some $3.5 million was used to reconstruct medical facilities and replace critical medical equipment.

Public Services and Basic Infrastructure ($4,400,000)

The earthquake destroyed 90 percent of San Salvador's public service infrastructure. In the first few days, large segments of the City were without electricity, water, sewage facilities, storm drainage structures, and telecommunications. Streets, sidewalks, retaining walls, stairways, and other support infrastructure were rendered useless making communication, transportation, and everyday life almost impossible.

Early efforts under USAID assistance focused on replacing damaged segments of these systems and bringing the utilities back on line. Much of this effort, patchwork and temporary in nature, was conducted during the Earthquake Recovery Project.

While permanent reconstruction has been the objective of several donors, USAID was the principal donor for reconstructing vital facets of the public utilities systems. USAID also developed within key governmental entities the capacity to respond quickly to continuing systemic breakdowns traceable to earthquake damage. Reconstruction resource aimed at the restoration of public services totaled $4.4 million.

Housing ($26,200,000 + $3,200,000 in Reflows)

The City of San Salvador is criss-crossed by thousands of seismic fault lines extending into and throughout the City's residential areas. In all, the earthquake left more than 300,000 people homeless and many more houses barely inhabitable.

Some communities, especially those of the very poor, were completely destroyed and had to be relocated to other areas of the City. This meant not only moving people from one location to another, but also providing them with housing, public services, schools, town halls and daycare centers. The reconstruction of low-income communities left in rubble by the earthquake has, in fact, been the hallmark of the Earthquake Reconstruction Project. Investments in these communities total $37 million and have resulted in the construction of 13,062 housing units in more that 75 communities and locations throughout San Salvador.

98

The bulk of new housing for low-income families, about 9,012 units, was built using a combination of self-help and paid skilled labor. These self-help projects were implemented by three private, non-profit organizations and included basic infrastructure, water, sewers, electricity, community centers, schools and other facilities. In addition to self-help labor, most families also contributed cash for the payment of skilled labor and the purchase of land.

Credit Lines ($12,100,000 + $2,100,000 in Reflows)

Credit lines were used extensively in both the Recovery and the Reconstruction Programs to provide individual home owners and small-scale business people with loans to repair or replace their homes and re-establish their businesses. Credit was also made available to assist home owners and to help private sector entrepreneurs in rebuilding private schools, clinics, laboratories, medical offices, and a variety of small business ventures.

Approximately 4,000 housing units were built by private contractors for families who were employed and could afford to make regular monthly payments. Both short-term construction financing and long-term mortgage financing were provided through the Savings and Loan System. As these funds were repaid, financing became available for investments in additional new housing for low-income families.

Project Support ($5,200,000 + $300,000 in Reflows)

The remaining earthquake funds, an amount of $5.1 million, bought technical assistance and equipment for the Government or was otherwise reserved for audits, evaluations, administrative support, and contingencies. The Financial Plan for the Earthquake reconstruction project is included as an annex.

Project Impact at the Conclusion of the Project

Today San Salvador resembles the City it was prior to October 10, 1986. The earthquake, once seen as an insurmountable disaster, became an opportunity for the Government to replace damaged structures with modern schools, houses, communities, hospitals, and infrastructure, all suitable for serving the people of San Salvador far into the future. Aside from returning the City to pre-earthquake conditions, the Project generated employment, stimulated commerce, reactivated the construction industry, and replaced badly needed socio-economic infrastructure.

Principal among the Program's accomplishments were:

* 14 public markets projects constructed;

* 2,210 classrooms constructed in 205 public schools;

* 26,604 pieces of school furniture purchased;

* 7 public health and medical facilities reconstructed and equipped with basic medical equipment;

* 24 kilometers of highways reconstructed;

* domestic water equipment purchased to respond quickly to continuing systemic breakdowns traceable to earthquake damage;

* 13,062 housing units constructed for relocated low-income families in more than 75 locations including basic infrastructure, water, sewers, electricity and 25 community facilities such as daycare centers, schools and community meeting halls; and

* credit extended to the private sector for reconstruction of 4 large private schools, 3 small businesses and 20 private medical facilities.

USAID's long-term reconstruction investments have continued over a five-year period and will end in March of 1993.

ARTICLE III - OBJECTIVE

To provide a three person team to evaluate the above referenced project and make recommendations which will be useful to USAID in future assistance programs following natural disasters.

Because of the extensive auditing of the Earthquake Reconstruction Project which has addressed key management concerns on an ongoing basis there has been only one other evaluation of the Project.

That evaluation was a three-day internal evaluation promoted by USAID, the National Directorate for Earthquake Reconstruction, the Court of Accounts and representatives of the participating GOES implementing entities. Its basic purpose was to review the implementation process, identify operational problems, and modify the project Administrative and Operational Procedures Manual and to facilitate and expedite project implementation. That evaluation was conducted during the month of April, in 1989.

A series of management workshops have been conducted for one or two-day periods for the purpose of identifying bottlenecks, improving procurement procedures, or removing other project constraints. These, too, have been in-house in make up and have been cursory in nature.

ARTICLE IV - STATEMENT OF WORK

The evaluation team shall analyze the following areas and make judgements, recommendations or comments to mission/agency management regarding them.

A. Institutional arrangements

B. Administrative and Operational Procedures

C. The Procurement Procedures for Host Country Contracts and Direct USAID Procurement

D. The Implementation Process Utilized to Include:

1) subproject identification

2) subproject selection

3) preparation of action plans

4) preparation of bid documents

5) procurement process

6) contract administration, and

7) financial management procedures

E. Project Accomplishments:

1) institutional

2) physical works (subprojects)

3) other

F. Project Impact on:

1) beneficiaries (both individuals and client institutions)

2) employment

3) stimulus to local commerce and economy

4) reactivation of the construction industry

G. Project Spin-off

Objectives not particularly sought but achieved, i.e., the development of the Direccion Nacional de Reconstruccion (DGR) with capacities for coordination and cooperation in other national development enterprises and endeavors.

H. WOMEN IN DEVELOPMENT ISSUES (WID)

1) Design, Appraisal and Implementation

How were the interests and role of women (compared to men) taken into account in each of the design, appraisal and implementation stages of the project?

In what ways did women (compared to men) participate in these processes?

2) Effects and Impacts Concerning Women

What were the effects, positive or negative, of the project concerning women's (compared to men's) access to income, education and training, and with respect to workloads, role in household and community, and health conditions?

How were the interests and role of women (compared to men) taken into account in the evaluation stage?

Were significant factors concerning women (compared to men) overlooked at the appraisal stage?

3) Data Availability - WID

Were gender-specific data available for each of the project stages?

Design
Appraisal/Approval
Implementation
Monitoring
Evaluation

4) Sustainability - WID

How did women's integration in AID activities affect the sustainability of project outcomes? Were outcomes more sustained (or less sustained) when women were taken into account in AID activities?

Are the results achieved by the project equally sustainable between men and women beneficiaries?

I. Lessons Learned

The focus of this section should be on project experiences that may be relevant, useful or serve as guidelines for the implementation of other earthquake reconstruction, disaster assistance, infrastructure development, or development projects.

J. Project Design and Project Design Modifications

K. Court of Accounts:

1) Its planned role

2) Its assumed role

3) Impact of Court of Accounts on project implementation and recommendations for the role of the Court of Accounts in USAID projects.

L. METHODS AND PROCEDURES

The evaluation team will receive an in-depth briefing by the Project Officer upon arrival of the USAID earthquake assistance activities.

The briefing will be followed by a two-day field trip to view a representative sample of physical construction projects. The purpose of this trip is to provide familiarity with the Project and the various subprojects.

Following the field trip the next few days (three to four days) will be required to review all pertinent project documentation, i.e., Project Paper, Project Authorization, Project Agreement, all PIL's (there are nearly two hundred PILS), Project Correspondence, Project Audits/Mission Responses and the Project Briefing Folder, Video Tape, other Video Tape Footage, Photo Albums, and other documentation as appropriate.

The review of project documentation should be followed by visits to the Direccion General de Reconstruccion (DGR) and discussions with its key managerial personnel. Visits should also be conducted to implementing entities and the Court of Accounts. Key personnel in those agencies should also be interviewed and their perspective should be gained. Given the number of entities, such interviews and visits could easily consume a full work-week.

103

Project beneficiaries should be visited. A sample of beneficiaries in each of the major components of the Project should be interviewed. This could take place within a one-week period.

A select group of construction contractors and A and E consultants should be interviewed. In this regard, a several hour session (a focus group interview) might be useful with the Chamber of Construction Industry (CASALCO). In addition, certain construction firms should be visited individually and interviewed independently. This should not take longer than a couple of days. Some of this can take place in conjunction with site visits.

Site visitations to at least 30 subproject sites should be conducted. Most subprojects will already be fully constructed but a sampling of subprojects still under construction will be included. This will require approximately two days. (This is in addition to the one/two day familiarity trip.)

It is assumed that throughout the conduct of the above activities the evaluation team will be drafting sections of their preliminary report.

The remaining time should be used in preparing the required reports, verifying information and conducting exit debriefings, draft reports and reviews. This could require up to eight work days.

ARTICLE V - REPORTS

The Contractor shall provide USAID and the General Directorate of Reconstruction (DGR) with the following:

A. Within six days from the day of arrival, the team will submit for USAID approval a working outline of the first draft report to include a list of places to perform field trips for approval.

B. Participate in entrance and exit briefings with the Project Officer, Project Implementation Committee (PIC) and mission management, as appropriate.

C. At least seven working days before leaving El Salvador, the Chief of Party shall give the USAID and the DGR a copy of a draft report in English. This draft will be reviewed by USAID and the organization being evaluated within four days and returned to the Chief of Party with corresponding comments/recommendations.

D. The Contractor shall incorporate the suggested comments and recommendations into the final draft to be left with the Mission prior to departure.

E. USAID will provide final comments within two weeks. The Contractor shall send to the USAID ten copies of the final report in English within two weeks of final receipt of USAID comments. The evaluation report will include the following sections:

1) Executive Summary. Including purpose of the evaluation, methodology used, findings, conclusions and recommendations. It will also include comments on development impact and lessons learned. It should be complete enough so that the reader can understand the evaluation without having to read the entire document. The summary should be a self-contained document.

2) Scope of Work and Methodology. A copy of the initial scope of work and a detailed outline of methodology used will be included. Any deviation from the scope will be explained.

3) Evaluation Team. A complete list of evaluation team members including host country personnel, their field of expertise and the role they played on the team.

4) Previous Evaluations. This will include a brief description of conclusions and recommendations made in any earlier reports. The evaluator will discuss briefly what use was made of the previous evaluation in their review of the project.

5) Lessons Learned. These should describe the causal relationship factors that proved critical to project success or failure, including necessary political, policy, economic social and bureaucratic preconditions within the host country and AID. These should also include a discussion of the techniques or approaches which proved most effective or had to be changed and why. Lessons relating to replicability and sustainability will also be discussed.

6) Paginated Table of Contents

G. A.I.D. EVALUATION SUMMARY. Mission will provide A.E.S. forms and appropriate guidance for the submission of a draft of this formal summary which is subject to Mission approval.

H. PROJECT COMPLETION REPORT. Mission will provide format and appropriate guidance for contractor to complete draft of this report which is subject to Mission approval.

ARTICLE VI - TECHNICAL DIRECTION

Technical direction will be provided by the A.I.D. Project officer in the Infrastructure and Regional Development Office (IRD), USAID El Salvador.

105

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ARTICLE VII - PERIOD OF PERFORMANCE

A. The effective date of this Delivery Order is the date shown in Block 7 of the cover page and the estimated completion date is date shown in Block 8 of cover page.

B. Subject to the ceiling price established in this Delivery Order and with prior written approval of the A.I.D. Project Officer (see Block 5 of the Delivery Order), the contractor is authorized to extend the estimated completion date, provided that such extension does not cause the elapsed time for completion of the work; including the furnishing of all deliverables to extend beyond thirty (30) calendar days from the original estimated completion date. The contractor shall attach a copy of the A.I.D. Project Officer's approval for any extension of the term of this Delivery Order to the final voucher submitted for payment.

C. It is the contractor's responsibility to ensure that the A.I.D. project officer-approved adjustments to the original estimated completion date do not result in costs incurred which exceed the ceiling price of this Delivery Order. Under no circumstances shall such adjustments authorize the contractor to be paid any sum in excess of the Delivery Order.

D. Adjustments which will cause the elapsed time for completion of the work to exceed the original estimated completion date by more than thirty (30) calendar days must be approved in advance by the contracting officer.

ARTICLE VIII - WORKDAYS ORDERED

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