

PD-ABY-390



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September 27, 2002

Jorge Abullarade,
Cognizant Technical Officer
USAID-El Salvador

**REF: Cooperative Agreement No. 519-A-00-01-00130-00
Permanent Housing Reconstruction Program**

Dear Mr. Abullarade

I am pleased to send you the final report on CHF's Permanent Housing Reconstruction Program. This project is funded by the referenced cooperative agreement. This report covers all activities for the life of the project.

Should you have any questions, please do not hesitate to contact myself or Mr. Peter Loach who also serves as the CHF Country Director in El Salvador.

Sincerely,

Franck Daphnis
Director, Field Program Operations

Cc: Peter Loach, CHF/El Salvador

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EL SALVADOR POST-EARTHQUAKE PERMANENT HOUSING RECONSTRUCTION PROGRAM I

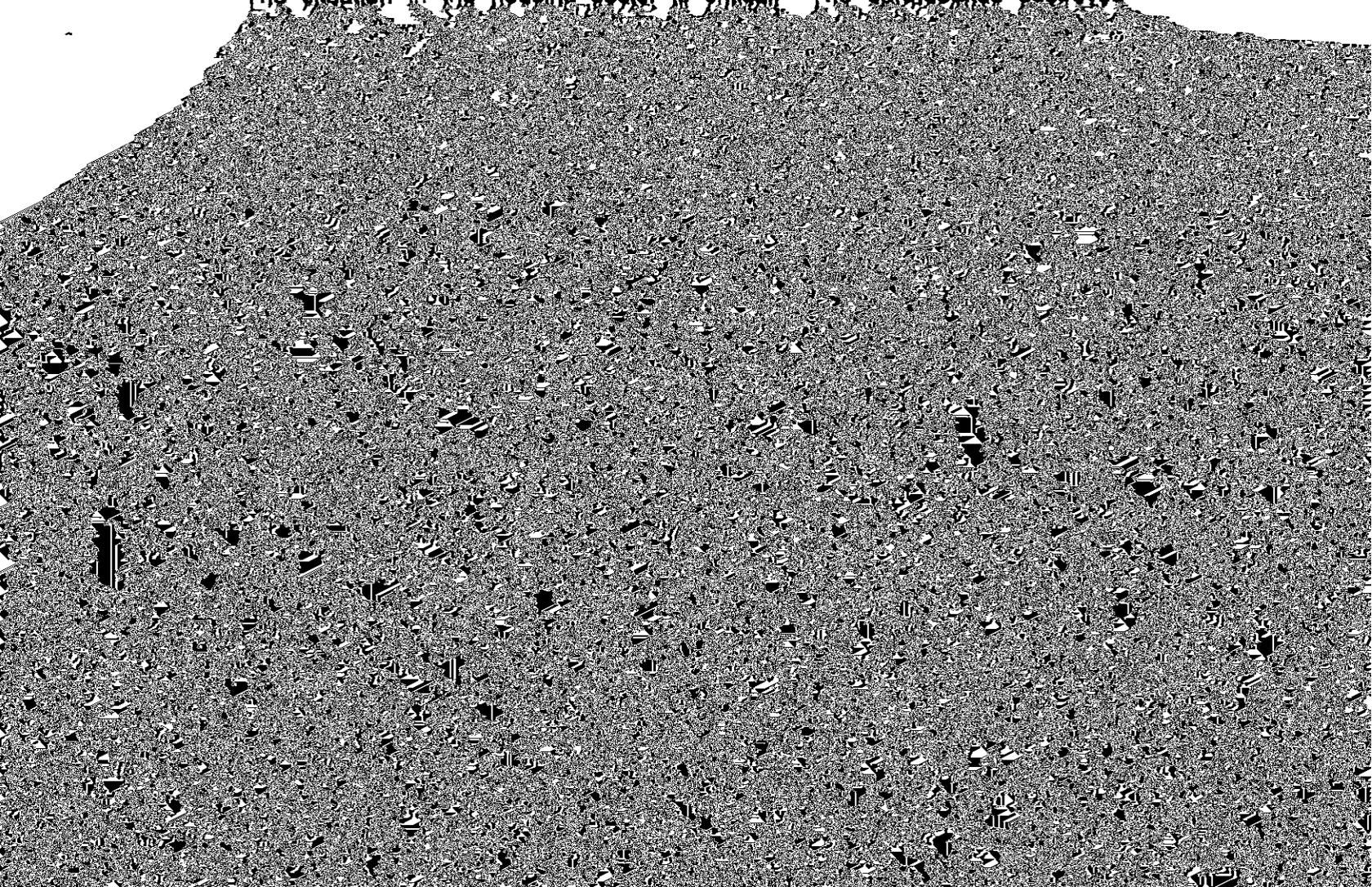
FINAL REPORT

Grantee: Cooperative Housing Foundation
Cooperative Agreement Number: 519-A-00-01-00130-00
Reporting Period: May 23, 2001 to June 30, 2002

I. Background

In January and February of 2001, two major earthquakes struck El Salvador. Over 1,100 people lost their lives, and a further 8,000 were injured. The widespread destruction affected the well-being of over 1.5 million people - in a country of approximately 6 million.

The situation in the housing sector is critical. The earthquakes destroyed





The activities related to program implementation can be divided into two broad areas:

- 1) Groundwork – involving the identification of communities, the completion of environmental impact assessments, and the selection of individual beneficiaries.
- 2) Construction -- involving technical inspections, opening of work fronts, organizing of field work and beneficiary participation, maintaining quality controls and supervision, addressing water and sanitation needs, implementing risk mitigation measures and training communities in improved environmental management.

II. Groundwork

Before the houses could be constructed, many different steps were carried out. Most importantly, beneficiaries were selected through a rigorous process to ensure that USAID criteria were adequately met. These steps entailed:

- community selection
- environmental impact assessment
- individual beneficiary selection
 - socio-economic
 - environmental risk
 - land ownership
 - USAID site inspection

A. Community selection

Potential communities were visited in coordination with municipal authorities, and contacts established with community leaders to organize community members and select beneficiaries. Communities were selected based on the level of damage suffered due to the earthquakes and on the levels of environmental and economic vulnerability facing the victims, as well as on the interest and organization of the local government and community leaders. CHF identified 103 communities for inclusion in the Program.

B. Environmental impact assessment

Once the communities that will be included in the reconstruction process had been identified, an environmental assessment was carried out for each one. These assessments were completed by CHF technicians who analyzed the environmental risks facing each community (liability to flooding, susceptibility to landslides, among others) using a guide designed and provided by USAID. These technicians had been previously trained and had acquired experience by visiting sites with USAID environmental staff. The completed guidelines were revised by the Program Manager and approved by the CHF Director.



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If it was determined that mitigation measures must be implemented in order to ensure the safety of a house and its inhabitants, then a program to implement these measures was formulated.

In total, 119 environmental assessment checklists were completed in communities in the Departments of Usulután, San Miguel, Sonsonate, San Vicente, La Libertad, and La Paz.

C. Beneficiary selection

Once the Environmental Assessment was approved by CHF, the Social Promoter Coordinator began the process reviewing the list of potential candidates. This included contacting municipal authorities and community leaders to set up meetings with possible beneficiaries to explain the program's requirements, and to set dates to complete surveys and collect legal land title documents.

In order to comply with USAID beneficiary requirements, a form was designed by CHF to collect information on the socio-economic circumstances of each family. This form collected information on damage from the earthquakes, monthly income, number of family members, and employment status of income-earners. This was done to target assistance to the most needy families, and to ensure that USAID criteria are met.

The legal documents and surveys collected were revised by a CHF Social Promoter, who had been trained to sort documents based on legal and socio-economic criteria. After this initial screening, legal documents were submitted for revision to the *Instituto Libertad y Progreso* (ILP) – the Salvadoran government institution working with USAID support to validate land ownership status.

CHF worked with local partners to facilitate this process. We had agreements in place with ASALDI, OEF/EI Salvador, and *Camara Junior* to process beneficiaries in the Departments of San Miguel, Usulután, and San Vicente.

Gender

CHF's methodology is highly gender-sensitive. Single mothers were a priority in the beneficiary selection process, due to their greater economic vulnerability. A total of 35% of the homes completed directly benefited female-headed households. In addition, CHF successfully promoted the incorporation of women in beneficiary selection committees and in collective decision-making. Furthermore, CHF helped women participate in the construction process, thus acquiring additional skills and capacity.



Land ownership

Establishing land ownership was one of the key determinants in the beneficiary selection process. In order for a case to be qualified, the land title must be registered at the *Centro Nacional de Registros* (CNR). This procedure was carried out through the ILP. Once land ownership was verified, the ILP issued a certification of its legal status, qualifying the case. The situation regarding the remission of documents and responses from the ILP was as follows:

	Total through June 30, 2002
Documents certified by ILP	1973
Documents denied or pending by ILP	133
Total documents sent to ILP	2106

As can be seen in the table above, CHF developed a very effective screening and processing mechanism for the selection of beneficiaries, with a minimal number of cases being rejected (only 6%).

USAID Site Inspection

The environmental impact assessment and a list of the potential beneficiaries were sent to USAID. A site-by-site visit was programmed. On these occasions, each construction plot was visited to assess the environmental conditions and identify mitigation actions, if any, that needed to be taken. This list was prepared beforehand and filled-in during the visit. This list was signed by the CHF and USAID representative and became the qualifying document for each site.

D. Challenges in the groundwork phase

The most challenging step in the groundwork phase was the verification of land ownership. The main obstacle to program implementation was the turn-around time for this verification. There were many instances where cases were certified for only a few families at a time in each community. In other words, CHF may have received clearance from the ILP for 50 families, for example, but more often than not these families resided in over a dozen communities. Thus, it is more difficult and costly to initiate construction for all 50. It was often necessary to wait until more families are cleared for each community in order to have a minimum scale of construction work in the area.



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III. The construction process

Once the legal status of each plot of land has been approved by the ILP and USAID, CHF begins the construction process. The activities carried out are the following:

A. Technical Inspections

An engineer or architect visits each one of the sites where construction was planned. A technical inspection of the characteristics of the terrain was carried out (accessibility, dimensions, access to basic services, environmental risk, and other elements are considered), as well as the home damaged by the earthquake. After this inspection process was completed, construction could be planned.

B. Opening of a work front

CHF Direct Construction

After the technical approval of each site, the work front was opened. At the same time, the method of implementation was decided upon: direct construction by CHF technicians, bidding out to private firms, or sub-awards with NGOs. If CHF carried out the construction directly, a resident engineer and social promoter were assigned to the community.

NGO or Private Contractor

Using CHF's in-house databank of over 80 pre-qualified construction companies, including more than 30 qualified specifically for housing, CHF operated a transparent bidding process to award contracts to private firms. Once a community with sufficient beneficiaries had been approved CHF: (a) randomly selected up to 8 housing companies from the pre-qualified list and invited them to submit a competitive bid; (b) invited companies to pick up the bidding documents and visit the construction sites with CHF staff; (c) companies presented their bids within 10-14 days; (d) bids were opened publicly in a single event, and (e) CHF's internal bidding committee reviewed three key areas of the offer, (cost, work program, and financial liquidity), rejected those that do not conform to the bidding requirements, and selected the winner based on an established point system. The winner subsequently signed a contract and presented the three construction bonds required of all CHF's partners triggering the start order from CHF's technical department. All firms received CHF's *Private Firms Manuals* describing requirements and procedures.

In total, CHF contracted 9 firms to complete a total of 648 houses. These were Duarte y Asociados S.A. de C.V., Constructora Tikal S.A. de C.V., Ing. Nelson Antonio Medrano Lizama, Arq. Eduardo Vega, Ing. Diego Rene Mejia, Arq. Juan



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Ramon Quintanilla, Inversiones de la Cruz S.A. de C.V., Ing. Rafael Angel Martinez Bonilla, and Ing. Cesar Danilo Zelaya Nieto.

In the case of NGOs, CHF signed sub-awards with pre-qualified NGO partners. Six NGOs partnered with CHF to build 436 homes. All received training and were closely supervised. In the case of Plan International (36 houses) and Homes from the Heart (13 houses), a sub-award was granted, after approval from USAID. In the case of *Coordinadora de Bajo Lempa* (57 houses), *Camara Junior* (71 houses), and *CORDES* (20 houses), the NGO managed construction and CHF provided materials or paid skilled labor in a co-financing arrangement. *Fundacion Techo para un Hermano* (239 houses) provided direct cash donations to CHF to co-finance CHF-managed construction.

In cases where construction was subcontracted to private firms or NGOs, a monitor, who was the person in charge of supervising the technical aspects of the implementation, was assigned to the project. Parallel to this, a schedule was drawn up to implement this project in conjunction with others and to organize construction equipment and material provision.

C. Organization of field work

In the field, one foreman per project was hired, and s/he directly supervised skilled laborers and beneficiaries. The CHF Technical Resident drew up a schedule for the implementation of the construction project and informed material suppliers on the needs for materials, equipment, and other elements. The CHF Social Resident organized work groups with the beneficiaries that supply unskilled labor and coordinated with the foreman and Technical Resident.

D. Quality supervision

In addition, there was an engineer from CHF in charge of controlling quality on all projects. This person carried out periodic visits to each construction site and prepares recommendations for the Technical Resident. In addition, a laboratory for monitoring soils and materials carried out constant assessments to control quality. CHF maintained strict supervision over contractors and NGO partners.

E. Community Participation

Crucial to the construction process was the participation of the beneficiaries and communities. CHF's social promoters organized community labor at all phases of the project and ensure that NGO partners and contractors fulfilled this requirement.



F. Housing construction

Construction was completed on all 1315 houses agreed to with USAID. Each home included internal wall partitions. This work was carried out in 103 communities in 22 municipalities in the Departments of La Paz, San Vicente, Usulután, San Miguel, San Salvador and La Libertad.

Of the 1315 completed houses, 613 are built in urban areas and 702 in rural areas. Of the houses completed, 213 are of cast-in-place concrete, 1059 are of concrete block, and 43 are of structural panel.

Distribution of houses by urban or rural area

Finished Homes

Urban	613
Rural	702
Total	1315

Distribution of houses by construction system

Finished Houses

Poured Concrete	213
Concrete Block	1059
Structural Panel	43
Total	1315

For additional information see Appendix 1.

G. Water and sanitation

Through its work in hundreds of communities affected by the earthquakes, and in specific diagnostics that it has carried out, CHF assessed the pattern of damage and destruction to drinking water supplies. In particular, among the beneficiaries of the housing program, such damage includes: collapse or contamination of wells, damage or destruction of pumping equipment, damage or destruction of water distribution systems, and damage or destruction of water storage facilities.



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In response to these problems, CHF also worked with housing beneficiaries to guarantee safe access to drinking water and sanitation services by building or repairing wells and water systems, as well as latrines.

Latrines/Water Systems

Item	Quantity Completed
Soak Pits	1227
Washing basins	1138
Pit Latrines	620
Composting Latrines	146
Latrines Repairs	105
Water repairs	11

H. Environmental mitigation measures

In addition to the construction of houses, CHF carried out environmental mitigation and management measures and training in areas where such measures were necessary for the houses' security and in communities particularly affected by water and solid waste contamination. CHF trained community members in solid waste management and proper latrine and drinking water use. A range of mitigation measures were also completed, each tailored to the specific risk circumstances of the community. Among those that can be mentioned are the following:

- Retaining walls to stabilize slopes
- Raising of the floor in houses in areas prone to flooding
- Drains and canals for rainwater drainage around the houses
- Protection of walls and foundations in buildings adjacent to those built
- Replacement of soils with a high organic content
- Construction of stairs to access homes.



Environmental Risk Reduction Measures

Mitigation Works	Completed
Elevated Houses	108
Retention Walls	108
Sets of Stairs	16
Storm drainage systems	77

Environmental Management Trainings

	Completed
Number of Communities trained in environmental management	70
People trained	1154
Schools trained	10
Students trained	757
Garbage Cleanup Campaigns	13

I. Partners

CHF actively incorporated a wide range of actors in the construction process, encompassing local and international NGOs as well as private sector companies. Agreements were reached with the following organizations:

- CORDES (20 houses)
- Coordinadora del Bajo Lempa (57 houses)
- Alcaldía de Mercedes Umaña and Camara Junior (71 houses)
- Plan International (36 houses)
- Fundación Techo para un Hermano (239 houses)
- Homes from the Heart (Fe y Trabajo) (13 houses)



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In total CHF build 436 homes with partner NGOs. In some cases CHF managed the construction process, in others it was managed jointly, and in others CHF sub-contracted the construction process to the NGO.

In terms of private construction firms, CHF contracted for 9 firms who built 648 houses. The selection of these firms follows carefully designed procedures successfully developed and implemented under the USAID/CHF/MIRA program to guarantee transparency and competitiveness. These firms were closely supervised by CHF's technical teams. CHF assured active community and beneficiary participation in the construction process by assigning social promoters to organize unskilled labor. The firms were contractually obligated to incorporate community and beneficiary sweat equity, and CHF social promoters were continually present in the community to guarantee compliance.