

Post-Earthquake Emergency Response In Ica, Peru



Final Project Report
January 22, 2008

1 The Context

At 6:34pm local time on August 15, 2007, an earthquake measuring 7.9 on the Richter scale struck in Peru. More than a dozen aftershocks measured more than 5. The epicenter was 25 miles off the coast line, 90 miles southeast of the capital city of Lima, and nearly 19 miles below the surface. Yet the effects were strongly felt in Lima.

The earthquake killed at least 519 people and destroyed close to 95,000 houses. Most of the damage was concentrated in the Department of Ica, specifically in the cities of Pisco, Chincha, and Ica. These cities were without electricity and effectively cut off from the rest of the country. Sizable chunks of the Pan-American Highway, which travels along the Peruvian coast linking the cities of Ica, Pisco, and Chincha to Lima, were destroyed during the earthquake.

CHF International responded rapidly to the emergency in Peru. By August 20, 2007, CHF's Emergency Response Team (CERT) was on the ground, identifying those communities most in need and underserved by other responding agencies. The CERT quickly made contact in San Jose de Los Molinos and Parcona, two mountain towns that had long been left out of the development process in Peru. Working closely with community members and leaders—80% of whose homes had been seriously damaged--the next step was to immediately identify priority interventions in order to most effectively provide relief to the communities affected.



A woman sits with her family near her destroyed home in San Jose.

2 The Objectives and The Results

CHF International's principle objectives for applying the contribution of Johnson & Johnson in Peru were to:

1. provide housing and security by building **shelters for 150 families**;
2. improve sanitation conditions through the construction or rehabilitation of **30 latrines** (one per five households as required by the SPHERE standards);
3. generate **225 person-days of short-term employment** for local community members to provide a source of income and recovery of livelihoods; and
4. directly **engage the local community** in recovery activities.

As outlined in greater detail below, support from our partners, such as the AIG Disaster Relief Fund, Johnson & Johnson, the Global Literacy Project, and private donors including CHF staff and trustees allowed CHF to **leverage a total of \$395,800 in additional funding and in-kind support** to far exceed these objectives. In sum, CHF International was able to:

1. Serve approximately **10,295 beneficiaries**: 6,545 direct beneficiaries and 3,750 indirect beneficiaries.

2. Build **700 transitional shelters**, **135 latrines**, **17 temporary classrooms**, **four community dining centers**, **a daycare center**, and distribute **324 small business grants**.
3. Introduce a transitional shelter design that was adopted as standard prototype by the International Federation of the Red Cross (IFRC) and used in the construction of **4,000 shelters in Peru so far**.
4. Train **24 community members** in transitional shelter construction, individuals who have become employees of the International Federation of the Red Cross for ongoing construction of shelters.
5. Build local capacity by training volunteers who participated in emergency response activities. A group of engineering student volunteers went on to create their own local NGO called PRODEISO (*Programa de Desarrollo Integral de Infraestructura Social*) for ongoing support in their communities.
6. Closeout Event in Parcona to celebrate a successful partnership that helped the people of Parcona and San Jose get back on their feet after one of the worst disasters in their recent history. (See pictures below.)

3 The Challenges

The extent and scale of the physical destruction, combined with the large number of people in urgent need of assistance, were major challenges. The CERT team quickly found that procuring construction materials became difficult as reconstruction efforts were scaled up across the entire region. Difficult weather conditions, including near freezing temperatures, made timely response even more critical as many families had no choice but to sleep in the open air. In addition, coordination mechanisms were limited and slow as the national government, local government representatives, the NGO community, and UN agencies had difficulty providing timely and relevant information to facilitate decision-making processes.

4 The Activities

1. Reconstruction of social infrastructure and transitional shelters

Shelter Construction:

CHF constructed *700 shelters benefiting 3,500 individuals* who had lost their homes. Beneficiaries of shelters were selected according to high vulnerability and willingness to provide “sweat equity.” The selection process was carried out through consultations with community members, community leaders, and local authorities, and then crosschecked using pre-established parameters developed by CHF.

Households actively participated in construction activities by providing labor, while CHF provided basic construction training, construction materials, and tools. This approach ensured that affected people were actively engaged in their own recovery efforts, and learned new skills that they could use to help their neighbors. To start, households removed debris from each building lot, salvaging materials such as doors, windows, wood, and adobe bricks to reuse in the new shelters. This technique helps families feel more at home in their shelter. Each household allocated one member to participate in the construction of the shelter. Activities were closely supervised by trained engineering students from the local university who worked as volunteers and provided technical assistance. The student volunteers received a small stipend to cover transportation expenses and meals.



Community members first participate in rubble clean-up activities.

As mentioned above, CHF used a combination of sweat equity and paid labor, with the households' labor contribution constituting approximately 13% of the total shelter cost. Paid labor ensured enhanced quality and durability of construction, while giving the locally-hired population who had lost almost all sources of income a chance to reestablish themselves financially.

Latrines Construction:

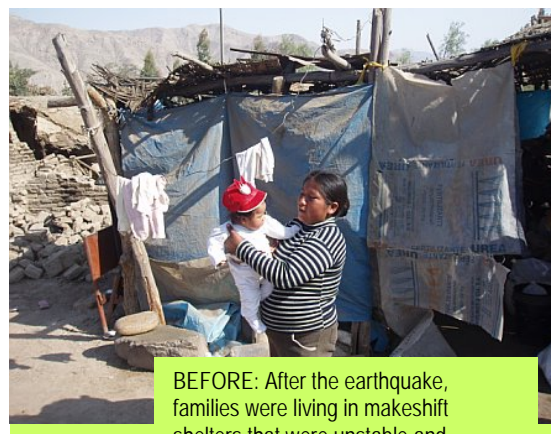
With water supply and hygienic systems heavily damaged, community members were facing a growing health crisis. In response, CHF also constructed *135 latrines* in the affected communities. Selection of beneficiaries here was similar to the process used in shelter construction activities in that the communities actively participated in selection of beneficiaries and in the construction of latrines. In addition, engineering student volunteers were recruited to provide additional technical assistance and oversight to communities during these construction activities as well. In line with CHF's integrated approach to building back better, CHF combined the latrine construction process with activities to raise awareness and do public education on issues relating to personal hygiene, management of human and animal excreta, waste disposal, and control of disease vectors.

Infrastructure Rehabilitation:

In addition to shelters and latrines, CHF *constructed 17 classrooms, a daycare center, and four communal dining areas, benefiting approximately 750 children.*

Three schools in Parcona had been badly damaged and children and administrators were left without classrooms and offices. The communities brought this to CHF's attention and asked for assistance. With the contribution of time and labor from teachers, administrators, and parents, and using the financial support of our partners, CHF helped build *transitional classrooms* which will serve as temporary spaces while permanent schools are rebuilt.

Similarly a *daycare center*, also destroyed by the earthquake, was rebuilt using the shelter model to provide interim space while the daycare center is rebuilt. In addition, CHF found that in this region of Peru households have traditionally pooled their weekly foodstuffs to create communal meals. Their communal dining areas serve as community centers, a space where neighbors gather to share news, discuss problems, and find solutions to advance their communities. With the support of community members, CHF was able to rebuild four *communal dining areas*.



BEFORE: After the earthquake, families were living in makeshift shelters that were unstable and dangerous.



AFTER: CHF's shelters are more durable and hygienic, allowing safe circulation and applying techniques that are locally appropriate.



Eight transitional classrooms underway for a destroyed elementary school.

2. Revitalization of lost livelihoods

CHF distributed a total of 324 *small grants*. The majority of beneficiaries had owned small businesses that had been impacted by the earthquake. In addition to a small grant, CHF provided some of those businesses (identified as low performers during initial assessment) with training and followed up for several weeks to ensure that businesses were beginning to recover.

In addition, through the construction activities, CHF generated 5,000 *days of paid labor*. Close to 90 percent of the 75 workers employed by this program were single mothers with two or more children. The activities carried out included removal of debris from streets and public areas, and the restoration of public parks damaged by the earthquake.



Microgrants were provided to individuals to help them restart their businesses, such as this restaurateur who works out of his shelter.

3. Activities to help mitigate the impact of future disasters by building local capacity

CHF built capacity at the community level to construct the shelters. Later on, some trained members of the community became paid laborers in the construction of other shelters. CHF provided these trained personnel a small grant for the purchase of tools. Today, the personnel trained by CHF continue to use the skills acquired as they work with other organizations constructing shelters in and around their communities.

Civil engineering students volunteering with CHF were trained in shelter construction, administrative procedures, decision-making, and organizational development. The group of volunteers became more organized and began exploring ways to continue to work for the betterment of the communities after the project closed. They have now founded their own NGO, named PRODEISO (*Programa de Desarrollo Integral de Infraestructura Social*), with the goal of continuing to implement infrastructure projects now and in the future.

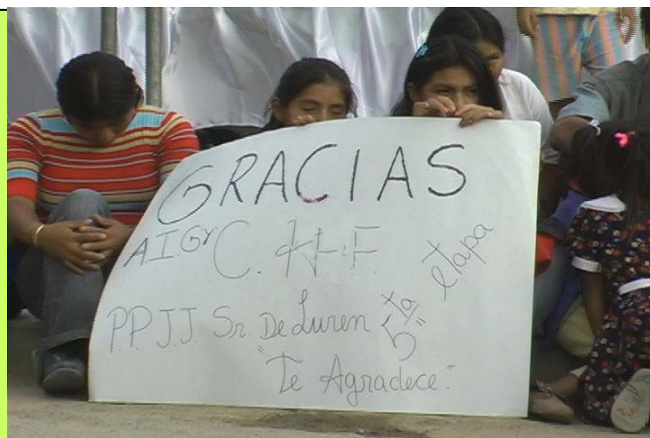
Throughout, CHF also maintained close relations with local government stakeholders. Meaningful involvement of local authorities reinforced transparency and democracy while empowering beneficiaries as they become more familiar with local and national government decision-making processes.



CHF staff member providing a community training.



Wendy Moreano, a civil engineering student at Universidad San Luis Gonzaga, provides guidance on how to construct transitional shelters.



Parcona, Ica | On November 30, 2007, the people of Parcona gathered for a traditional celebration in recognition of the remarkable recovery the community has made following the earthquake. The event was attended by hundreds from near and far, including community members, U.S. Government officials from USAID/Office of Foreign Disaster Assistance, the Mayors of Parcona and San José de Los Molinos, the Regional Governor of Ica Province, scores of local media representatives, and special guest Ms. Helena Tengan, Human Resource Manager for Johnson & Johnson (Peru), as well as representatives from other partners, including Mr. Pablo Korze, Regional Vice President of the Latin America Division of AIU Chile (American International Underwriters),

The event included musical and dance performances, speeches, an exhibit by the recipients of microgrants of their foods and crafts, and a tour of the areas in Parcona where shelters were constructed. Community members came dressed in their favorite clothes with home-made signs thanking Johnson & Johnson and CHF for their support. The celebration lasted several hours, and was covered widely by local print and broadcast media.