

Indonesia

The CHF International Approach



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"I was very proud of what government did in tsunami relief, the military, the civilian agencies, the private, religious and nonreligious groups. The Indian Ocean tsunami, as you all know, killed an estimated 230,000 people on December 26, 2004. It was the loudest wake-up call of many about the need to reduce risk and improve management of natural hazards. The question is whether we will put what we know into action. In the end, disaster reduction is about making the right development choices: where to locate a school, how to protect buildings better, how to build them better, how to pursue sustainable development. We have all learned a lot from the things that have happened. The question is whether we have learned enough."

—President Bill Clinton

"I'm very proud of what these guys did. It's a humanitarian mission that I think is well understood here."

—President George H.W. Bush

Former Presidents George H.W. Bush and Bill Clinton visited CHF International's post-tsunami aid and development programs in February 2005.

Introduction

On December 26, 2004, the second largest earthquake ever recorded erupted off the coast of Sumatra, Indonesia, triggering a series of tsunamis that inundated coastal communities with waves up to 100 feet high. Less than 18 months later, Indonesians were jarred awake early in the morning on May 27, 2006, by an earthquake that struck the city of Yogyakarta on the island of Java.

The human cost of these dual blows was compounded exponentially by the massive damage done to buildings, infrastructure, the economy, communities, and the environment. Response from the global community was immediate and generous. CHF International was one of the first on the ground in Aceh, due to rapid funding from DLA Piper Rudnick. This positioned CHF to become a recipient of USAID's High Impact and Revitalization of the Economy of Aceh (HIRE) program.

The challenges of working effectively in a post-disaster setting, whether socially unstable like in Aceh or otherwise in Yogyakarta, were daunting and required fast, efficient action. Forging innovative partnerships with private sector actors, including AIG and Chevron, and with other NGOs such as the Red Cross and World Vision, CHF was able to carry out immediate relief activities.

But it is CHF International's belief that it is not enough to provide relief; every aspect of the relief mission must be carried forth with long-term development as the ultimate aim. Every time CHF produced shelters and housing, it was in agreement with the priorities of local communities, using local materials and labor to create homes, markets and infrastructure that communities would invest in and maintain. CHF worked to stimulate the private sector, creating employment in Indonesia and giving out loans to entrepreneurs to encourage a self-sufficient economy. And it worked closely in private-public partnerships, matching commercial interests to community needs.

Over half a century of experience has taught CHF International that working with the community and creating locally appropriate, self-sufficient solutions for the long-term is the only way to achieve lasting sustainable change. And as seasoned experts in construction, CHF is well aware that any building is only as strong as its foundation.

Meeting the Challenges of a Post-Disaster Setting

RESPONDING FAST AND EFFICIENTLY TO EASE TRANSITION

ACEH – RESPONDING TO THE 2004 TSUNAMI

On December 26, 2004, a powerful earthquake struck in the Indian Ocean, off the coast of the Indonesian province of Nanggroe Darassalam Aceh, commonly known as Aceh. Of the 12 nations hit by the resulting tsunami, Indonesia was the most severely affected: 130,000 people were confirmed dead, 37,000 missing, and half a million displaced.

Along with the massive loss of life and human displacement, the coastal region's infrastructure was completely devastated. While overwhelming in itself, addressing the physical destruction was not the only challenge facing relief agencies in Aceh. They also had to work in a society torn apart by 30 years of an ongoing civil war.

Following the flood of water came a deluge of international relief resources and personnel. But few knew how to respond appropriately to a natural disaster of these proportions. Many humanitarian assistance agencies were overwhelmed by donations, and did not have the resources to put these donations to effective use.

In May 2005, the U.S. Government provided \$400 million to USAID/Indonesia for its Tsunami Recovery and Reconstruction Fund, \$62.3 million earmarked for transition activities focused on shelter, livelihoods, and related transition support. Rebuilding housing was a critical part of restoring hope and livelihoods in the

region, and the Government of Indonesia made quick construction a high priority.

Enlisting CHF International was an obvious choice. The organization's long construction experience and expertise in post-crisis, socially unstable environments such as Afghanistan, El Salvador, Colombia, and South Africa gave CHF unique qualifications to work in Aceh. CHF had also shown through smaller, existing projects in Indonesia its ability to respond quickly and in a way fitting to the local context.

CHF's fundraising techniques had been different too. Where other agencies were overwhelmed, CHF carefully targeted funding bodies and private corporations in order to ensure that resources and capacity were matched, to create the most appropriate and effective solutions for the tsunami-hit area.

Recognizing this expertise, in October 2005, USAID awarded a cooperative agreement to CHF to implement the High Impact and Revitalization of the Economy of Aceh (HIRE-Aceh) program. The agreement included a cost-sharing component to be generated by CHF from other donors and partners. CHF was appointed the only housing partner organization by USAID in Aceh.

"It became evident very quickly that the magnitude of the disaster was beyond any single organization's or government's capacity to respond effectively," said David Taylor, World Vision International's

»» The Power of Strategic Public-Private Partnerships



A WIDE RANGE OF PARTNERS played a critical role in ensuring CHF International's response in Aceh following the tsunami was as immediate as it was comprehensive. Under USAID's HIRE-Aceh program, CHF engaged with private-sector partners in programs that rejuvenated entire communities, building houses, installing water and sanitation systems, reestablishing markets and getting people back to work.

In partnership with the AIG Disaster Relief Fund (DRF), which is supported by generous donations from the company's own employees, CHF oversaw the design and reconstruction of Peunayong Market, Banda Aceh's primary marketplace for the retail trade of fish and vegetable products.

- The new 2,000 square meter facility serves as an employment, health services, and trading hub for thousands of community members.
- In addition to 2,500 days of labor that were generated through the construction – largely employing individuals displaced by the tsunami – the new market benefits 400 market vendors, and tens of thousands of customers and market suppliers in the region.
- The new market is earthquake resistant, includes an atrium for open air circulation, and has proper sanitation facilities, a solid waste management system, and both a health and a safety post.

Funding from the AIG DRF also supported a variety of livelihoods activities in Pulot Village and Lamno.

- Four fishing boats were built in Pulot Village
- 93 houses and a barn were constructed in Lamno and stocked with 30 cows.

CHF PARTNER AMERICARES funded the reconstruction of Banda Aceh's principal fish wholesaling market at Lampulo, a facility that is crucial to the revitalization of the Acehese fishing industry. KPMG-ACDI/VOCA funding helped get the boats back to water through the provision of boat production machinery. Briggs and Stratton donated critical equipment needed to revitalize the market, including more than 300 generators, water pumps, and boat motors.

These services were desperately needed by the people of Aceh to rehabilitate their land, reconstruct homes and businesses, power their fishing boats, and most importantly, help them to regain their economic and social well being as quickly as possible.

IN LHOK SEUDU, a very generous grant from singer/songwriter Alanis Morissette made it possible for CHF to help thousands of tsunami-affected villagers, in partnership with local NGO Udeb Saree Lhok Seudu.

- With 90 percent of residents in the community reliant on the fishing industry in order to make a living, they were devastated when the tsunami destroyed all 15 of their boats. Alanis Morissette's donation helped provide the community of Lhok Seudu with a new boat building workshop, which has replaced 10 of the lost boats. Employing 3-4 people each, the boats and the fish they catch are enabling villagers to earn a comfortable living.
- Dozens of villagers are now able to restart their businesses through the help of a zero-interest revolving loan fund.
- Alanis Morissette's support also helped reestablish small-scale farming for rice, watermelon, corn soybeans, ground nuts and vegetables in Lhok Seudu. Watermelons have proven to be one of the most profitable crops for the villagers.



ONE OF CHF'S MOST STEADFAST PARTNERS in the reconstruction effort was international law firm DLA Piper, whose staff supported economic revitalization through personal donations that were matched by the firm. Together, CHF and DLA Piper devised targeted economic initiatives that provided vulnerable communities in and around Banda Aceh with the means they need to secure bright and prosperous futures. In Pidie District, CHF worked with local NGO Saleum to restore the livelihoods of those who lost everything in the earthquake and tsunami. DLA Piper provided:

- Financial assistance to 48 local producers of fishing nets and produced 120 nets;
- The materials necessary so that 291 elderly women – many of whom have no other means of income – could produce Melinjo crackers, a popular chip;
- Repairs for 40 damaged boats for about 225 fishermen in Cot Jaja, as well as tools and equipment; and
- Provided 220 itinerant traders with start-up capital, as well as bicycles and baskets, so that they could purchase and transport products between larger markets and their shops.

(Other successful CHF private-sector partnerships are described throughout this publication)



executive advisor for humanitarian and emergency assistance. “Partnering was critical to success: avoiding turf battles and duplication of effort.” World Vision was among the many international organizations CHF partnered with in its tsunami recovery efforts.

Humanitarian assistance efforts faced many challenges in Aceh. One of the biggest of these, according to Taylor, was the impact of centuries of civil conflict in the region. Three main drivers defined this impact: deeply rooted suspicion and distrust; a propensity to solve problems large and small with violence; and a current of victimhood and entitlement.

These three characteristics had tremendous impact on the management of relief programs, further complicating the emergency response.

“We were dealing with a broken society hit by a big wave,” said Thomas White, CHF Indonesia’s Chief of Party in Aceh. “A lot of organizations did not realize the difficulties they would face working in a post-conflict as well as a post-disaster environment.”

In addition, it was not always easy to reach consensus between donors and with the Indonesian government on what was really needed. Prior to the disaster, the region’s economy had been driven by fishing, farming, and logging. Now, former fishermen, farmers, and woodsmen were doing construction work. Getting qualified vendors, workers and materials of acceptable quality quickly proved a challenge.

“Construction is a difficult high-risk industry to work in, even under the best of circumstances,” said White. “If you take out the legal, environmental and structural regulations, rule of law, functional police and military forces and you remove all infrastructure, all of a sudden it becomes a really, really tough job to do.”

By June 2008, CHF had completed construction of 1,326 houses, exceeding its deliverable under the HIRE-Aceh program. A number of these were completed by CHF for other major international aid organizations, including Oxfam Great Britain, CARE International and World Vision. Recognizing the progress being made by CHF, these agencies turned over a number of construction projects or



>> CHF/AIG Disaster Relief Fund: A New Model for Preparedness

This year, AIG and CHF were chosen as Business Civic Leadership Center Partnership Award finalists by the US Chamber of Commerce for the innovative humanitarian assistance they have provided during global emergencies and disasters.

AIG and CHF have an unprecedented approach to disaster management. Their joint aim is not simply to provide emergency relief, as other organizations do, but also to respond in a way that directly enables long-term sustainable development and economic growth.

This partnership builds upon several years of cooperation between CHF and AIG in the management of natural disasters. Funding from the AIG Disaster Relief Fund (DRF) – which is supported through generous contributions made by AIG staff – enabled CHF to respond to the tsunami in Aceh, as well as the 2007 earthquake in Peru, by rebuilding homes, markets, and livelihoods.

Additional support from AIG enabled CHF to respond to the earthquake in Yogyakarta. This effort provided transitional shelters – made with local materials and labor – to families displaced by the disaster. AIG’s support also enabled CHF to host a competition among Indonesian engineers and architects that spurred creative local responses to reconstruction and resulted in the development of bricks made out of crushed rubble, rice husks, and other innovative materials.

“The CHF/AIG partnership was phenomenal,” said William Frej, USAID Indonesia Mission Director. “The timing, responsiveness and, more importantly, what evolved from that partnership the rest of the donor community can look at as a model and be proud of.”

contracted CHF directly to carry on under separate grants. CHF also partnered with the government of Indonesia’s tsunami recovery agency (BRR), which provided \$150,000 worth of housing materials and turned over housing sites to CHF that it had earmarked for itself. These partnerships indicate the widespread recognition of CHF’s capacity in the field.

World Vision International turned to CHF with a contract to construct 182 houses on the west coast. World Vision had already completed close to 2,000 houses, but was facing a deadline and the site was a tough one.

“They saw the speed with which we were able to achieve results and they had a very difficult site, basically in the middle of a lake,” said White. “It was a real challenge but we got the job done months before other similar projects were completed in the area.”

YOGYAKARTA RESPONDING TO THE 2006 EARTHQUAKE

The speed and efficiency with which CHF responded to the crisis in Aceh was duplicated under different circumstances in Yogyakarta, a very different region of Indonesia on the island of Java. On May 27, 2006, an earthquake battered Yogyakarta province and left 5,782 people dead, 36,299 injured, and an estimated 1.5 million homeless.

Within weeks of the earthquake, CHF received funding from USAID’s Office of Foreign Disaster Assistance (OFDA) for a Transitional Shelter Program to construct 5,000 dwellings for some of the 300,000 families whose homes were damaged or destroyed in the earthquake, as well as provide water and sanitation assistance for earthquake-affected communities.

The post-disaster scenario in Yogyakarta was very different from that in Aceh for a variety of reasons, according to Kelly van Husen, CHF program director in Yogyakarta.

“There was a bit of chaos, as would be expected after any emergency, but it was fairly well organized,” van Husen said. “It made it easier that fewer agencies were involved.”

The Javanese cultural climate was also more conducive to cooperation than Aceh’s. In Java there exists the tradition of gotong royong, a community spirit of volunteerism, sharing burdens and working with others. (See page 10 for an example of gotong royong in action)

In implementing the Transitional Shelter Program, CHF tapped into

Building on the success of the Transitional Shelter Program, last year CHF received additional funding from the multi-donor Java Reconstruction Fund (JRF), administered by the World Bank, to provide 8,000 durable shelters in Java using the same community-based approach and methodologies. In a recent statement, this ground-up strategy was applauded by JRF donors.



gotong royong through a highly innovative community-based approach, collaborating closely with the University of Gadjah Mada and other local universities during all phases of program design and implementation. (See “Building Innovation: Collaborating with Local Universities in Yogyakarta” page 14)

The outcome was attractive, sturdy shelters constructed from bamboo, using material such as bricks, roof tiles, doors, and windows salvaged from ruined houses. The model was so well designed it was used by most of the other agencies building shelters at the time and has become an internationally recognized model replicated worldwide.

“The community-based development approach has certainly been the right choice to build ownership and motivation for the reconstruction efforts among community members. It is very meaningful to see beneficiaries now living in their homes and returning to normal life and work.”



The Bricks of Building Economic Revitalization

Simple, humble, but fighting for life. That's the general picture of Pak Muhtar, a 40 year old man from Tulung, Srihardono, Pundong, Bantul who has dedicated his life to his handicraft business. Just next to his temporary house is a CHF core house which is used for the community purposes in his village. When the earthquake struck Bantul, Pak Muhtar and his family fortunately escaped safely.

"The shaking that morning was shocking and hard. Many people were injured and some were killed. Lots of houses collapsed, including mine and my handicraft workshop as well."

Before the earthquake, Pak Muhtar owned a handicraft company including terrazzo, terracotta and ceramics. He also ran a furniture business and exported his products to the United States, Holland, France, Germany, and Italy.

He started the handicraft business in 1981 after he left school because his parents could not pay the school fee. He first worked at Warwick Purser's handicraft company as a laborer. After gaining enough experience and skill, he established his own company by creating handicrafts using coconut husk, water hyacinth, and water sea grass. His work interested buyers from many countries, so he exported them. His neighbors became his employees.

"I want everybody surrounding me to also benefit from what I have," he said. "That's the only I can help the community."

The earthquake not only destroyed lives and homes around his community, it also damaged his business. Three of his workshops were totally destroyed, and many of his handicrafts – complete and ready for export – were also ruined.

"On Monday, May 29, 2006, I had scheduled four containers to be shipped to Singapore, but everything was damaged by the earthquake," he said. "I had to pay for the loss and now I have nothing left. My family still lives in the temporary house in the garage while I am reconstructing my house bit by bit."

Pak Muhtar granted some parts of his land next to his collapsed house for the CHF core house in Tulung, Pundong, Bantul. Even though he and his family still live in the garage, he does not mind that his land is used for the community. The core house is used for community purposes, such as an integrated health and service point and for a community hall. In addition, Pak Muhtar contributed new, innovative bricks to the core house construction, made from recycled debris and rice husks.

"After much experimentation finally I could produce these bricks. Besides their improved strength, the bricks are only 60 percent of the cost of common bricks and they are more environmentally friendly," he said. "I thank CHF and AIG because they have helped people in Tulung by providing temporary shelters and also a core house. I am sure CHF will stay in our hearts as it has given a lot of help for the people here."

A Ground-up Approach for Sustainable Change

BUILDING INFRASTRUCTURE, HOUSING, AND SERVICES THAT LAST

CHF International built partnerships with the public and private sectors to act fast in meeting the overwhelming, immediate human needs created by Indonesia's two devastating natural disasters. But making the transition to sustainable reconstruction and development was made possible by engaging local communities, the driving force of any CHF program in the field. Over half a century of experience around the world has taught CHF that only a demand-driven, ground-up, community-based approach gives lasting results. Without community ownership and buy in, the efficacy of any reconstruction initiative is greatly diminished.

The participatory process of rebuilding communities is lively and educational. Before a single brick is laid, CHF enlists local leaders and holds community-wide meetings to democratically elect a Community Resettlement Committee, which liaises with the local population. These meetings also give CHF an opportunity to show beneficiaries how the reconstruction process works and explain the initiative's goals and expectations.

"The approach we take is community based and people based," said Sarah Henshaw, Manager for Asia in CHF's Office of Global Operations. "Instead of just building houses on the land the government gave them, the community was involved the entire way through the process."

Which meant the people got what they wanted and needed. This satisfaction is clearly expressed in the high occupancy rates of

CHF-built housing. The 1,326 houses built in Aceh to date have an estimated 98 percent occupancy rate and the 5,000 transitional structures built in Yogyakarta are all occupied.

"We don't view building houses as a deliverable; we are looking to build houses that are occupied," said Tom White, CHF Indonesia's Chief of Party in Aceh.

Nearly as important as housing are the markets that drive local economies. Across Indonesia, people want to buy fresh, safe and affordable produce from local vendors. Traditional markets are the main food source for poor and low-income families and serve as centers of social interaction.

One of CHF's main economic revitalization projects in Aceh is the reconstruction and rehabilitation of damaged or destroyed public markets. With funding from the American Red Cross (ARC), AIG Disaster Relief Fund, AmeriCares, and Direct Relief International, the project evolved into the comprehensive and widely acclaimed Healthy Markets Initiative. To date, 14 markets across the region have been reconstructed or rehabilitated, serving almost a quarter of a million people.

"The transformation that has occurred in terms of the ability to sell that which was their primary commodity before the tsunami is one of a return to full capacity. The new market is really the focal point and center for economic growth in the city," said William Frej, USAID Indonesia

>> CHF's Construction Methodology: Building for the Future

CHF's flexible construction methodology is designed to strengthen both the results and the process. Key elements of this approach include:

QUALITY OF DESIGN: CHF's technical designs are customized for the local context and incorporate feedback from stakeholders (e.g., homeowners, vendors, local government authorities, etc.) In addition, the facilities are designed to be safe, hygienic, simple to maintain, and aesthetically pleasing.

WORKER TRAINING: CHF provides contractors, workers, and communities with training prior to a project to familiarize them with CHF standards and protocols. In some cases, apprenticeships allow those with some level of skill to get hands-on training to improve their employability.

QUALITY OF MATERIALS: CHF has established guidelines for consistency of quality in all construction materials. These construction quality guidelines address gravel, brick quality, concrete mix, mortar mix and bond, steel reinforcing bars, septic tanks and wells, among other materials.

CONSTRUCTION STANDARDS: CHF standards have also been developed to apply best practices in construction. These cover masonry standards, placement of septic tanks, foundation requirements, proper anchoring, use of deformed bars, etc.

IN-HOUSE QUALITY ASSURANCE AND CLOSE AND REGULAR SITE SUPERVISION: Throughout the construction process, CHF engineers maintain constant close supervision of either directly hired construction labor or its contractors' quality control regimes, requiring CHF approval of materials and construction phase achievements prior to payments being made.

DISASTER RISK REDUCTION: CHF's programs take into account the hazards faced by communities such as earthquakes, cyclones and floods, and work to mitigate these risks wherever possible, for example, by using earthquake resistant materials and by avoiding building on flood plains.

Mission Director. "I think bringing together private sector resources with US Government-supported technical assistance is a model not just for Indonesia but worldwide."

The Healthy Markets program is a unique, holistic approach to market construction. It includes physical upgrades to traditional markets aimed at improving hygiene and efficiency, and provides training for vendors. It also develops links between markets, government departments and public health organizations to ensure that vital health information and services are provided.

The story of Pak Bustamam, a fish seller in the village of Laweung in Aceh, provides evidence of the success of the Healthy Markets Initiative. Pak Bustamam had sold fish to the thriving local wholesale market for 14 years, until the tsunami hit. The force of the disaster altered the geography and coastlines dramatically, rendering the river through Laweung too shallow to support fishing boats.

Pak Bustamam and others in this community now travel to buy fish from the makeshift wholesale market at the river's mouth, and the Laweung market now functions as a retail fish market. The economy, however, has suffered. As a center for wholesale fish, the market once attracted about 30 fishing boats per day and hundreds of buyers. Today, about 16 vendors sell at the market.

Rehabilitated by CHF as a Healthy Market, Laweung now has improved sanitation and clean water. The benches installed for vendor comfort have also attracted more customers; people now come to the market to sit and talk and, of course, to buy more.

Pak Bustamam is head of the Laweung fish vendors and also a member of the Market Management Committee (MMC) that was formed as part of the new facility. The MMC facilitates meetings to address issues related to the market, cooperates with other institutions, and speaks as a representative body for vendors and those served by the market. Community outreach is essential to the market's continuing health.

In Yogyakarta, the task of building appropriate transitional housing that would be sturdy enough to last 2-3 years gave CHF the opportunity to collaborate in a new, innovative way with the local university community.

Responding to the immediate effects of the disaster in the Yogyakarta area demanded that those in need be offered safe shelter that could be erected on a massive scale and in the shortest period of time. CHF worked with the USAID Office of Foreign Disaster Assistance (OFDA) as well as the nationally renowned University of Gadjah Mada (UGM) in the development of a simple, low-cost shelter model that could be quickly constructed using locally available labor and materials (in particular, bamboo and thatch) that eventually became the model used by other organizations as well.

Not only were construction techniques technically and culturally familiar to the area, the design also allowed those in need to use salvaged parts of their destroyed homes (such as doors and windows) that helped in quickly serving not only their shelter needs, but in regaining

their lost home. Working in close concert with a “small army” of dedicated students from six area universities who were engaged as volunteers (see box on page 14), this program was also supported by the AIG DRF, and later by a World Bank-administered multi-donor fund.

“The transitional shelter program was highly successful not only because it met the immediate needs of thousands of families in a very desperate condition but, importantly, because it did so while allowing them to remain in their communities as a cohesive unit, as opposed to being sent to camps for the internally displaced as is very often the case in such situations,” said Louis O’Brien.

With immediate needs largely met, CHF turned its attention to the next task at hand – permanent housing reconstruction. However,

Blueprint for a Healthy Market



A Healthy Market is clean, healthy, and thriving. It has:

WATER

- Sufficient clean water
- Safe water for food vending areas and hand washing

SANITATION FACILITIES AND WASTES MANAGEMENT SYSTEM

- Proper liquid and solid wastes collection and disposal system
- Drainage systems that flow freely and can be kept clean
- Separate toilets for both genders
- Procedures in place to prevent spread of disease such as bird flu

PHYSICAL INFRASTRUCTURE

- Design that matches intended usage
- Building in good condition
- Accessible to all persons in the community
- Good ventilation and lighting

INTERNAL LAYOUT AND DESIGN

- Organized vending areas that separate types of food
- Work surfaces in food vending areas that are easy to clean and disinfect
- Attractive and inviting displays of fresh foods

HYGIENE

- Pest controlled
- No live animals allowed in the market
- Facilities for good hand-washing practices using soap and safe water
- Clear and clean public areas and walkways
- Proper handling and storage of raw, processed, and prepared food products

because the majority of those who lost homes were provided with a government grant for reconstruction, the need was less one of material than one of technical assistance – to avoid unsafe construction techniques largely responsible for such high levels of housing loss in the earthquake. To this end, CHF again worked with the university community and the Indonesian Architect Association in sponsoring a nation-wide competition for the development of permanent, seismic-resistant, cost-effective housing models. Winning models used innovative building techniques such as bricks made of earthquake rubble and bamboo reinforced walls, and samples of such houses were constructed at select sites and used in community demonstrations.

With additional support from AIG through Give2Asia, CHF also assisted in a permanent housing construction program undertaken by HSBC and Out of Asia. Based on the success of this work, CHF received additional support from AusAID under which more demonstration houses were built. This funding also contributed to the expansion of the community-based training program for safe building techniques, along with a range of practical manuals and other educational materials. A companion construction apprenticeship program further added to the skilled labor pool necessary to aid communities over the long term.

>> Building Innovation: Collaborating with Local Universities in Yogyakarta

In implementing the USAID/OFDA-funded Transitional Shelter Program in Yogyakarta, CHF collaborated closely with the University of Gadjah Mada (UGM) and other local universities during all phases of program design and implementation.

Assistance from UGM centered around three areas:

- Assistance in the design of the transitional shelter model
- Approximately 100 student volunteers from the UGM departments of Architecture and Engineering, as well as student volunteers from other local universities
- Advice on a permanent housing design and program that is cost-effective, locally appropriate, innovative, and can be replicated for large-scale post-disaster reconstruction

CHF-UGM collaboration throughout program implementation led quickly to the design of a locally-appropriate shelter that was both culturally acceptable and cost-effective. This was due largely to knowledgeable input from the university students and staff, and the skills of local rural communities. As a result, the design of the transitional shelter was widely accepted in the beneficiary communities and became the standard model not only for CHF, but for other organizations as well.

This collaboration was also effective due to the large number of university student volunteers involved in program implementation. Volunteers traveled daily to the communities where they identified beneficiaries and introduced the CHF program, organized work groups for shelter construction, received shelter materials and ensured quality control of the materials. They were responsible for monitoring construction progress and completion, as well as providing technical assistance to beneficiary families and community work groups during construction.

Restoring Livelihoods from the Ground Up

TAPPING INTO INDIVIDUAL ENTREPRENEURSHIP

Infrastructure, housing, and services can be built to last but the key to their longevity is a vigorous local economy. The tsunami and earthquake devastated regional economies and robbed communities of their sources of livelihood. To accelerate the transition from relief to development, CHF took aim at revitalizing livelihoods to give survivors the best chance for long-term recovery.

With support from private-sector partners (see box page 6), CHF began by providing microgrants, distributing tools and supplies, and replacing lost equipment to help affected families regain control of their economic circumstances. One of the cornerstones of CHF's methodology, in Aceh and around the world, is a strong focus on building the capacity of local actors to improve their own social, economic, and environmental conditions.

KICK START ACEH

Often, only a slight amount of additional capital is needed to allow a small business to gain momentum and grow, its success spilling over into the entire community. As a main focus of Kick Start Aceh, an economic revitalization program funded by Dow Chemical, CHF made reasonably priced loans available to small business owners in Aceh so they could recharge their enterprises with new stock and other improvements. Until these loans became available, business owners had been forced to buy their stock or products using credit from private lenders, who charged

exceptionally high and arbitrarily determined interest rates. There were no other options until CHF offered opportunities through the Kick Start Aceh program.

Breaking this cycle of entrapment, CHF's local implementing partner, Koppa Bimas, provides microloans at reasonable interest rates and with transparency: clients learn why the specific interest is charged and how it is spent. (For more on Kick Start Aceh, see page 16).

REVOLVING LOAN FUNDS

Revolving-loan funds, often established with capital that does not need to be repaid, are another source of finance for microentrepreneurs. In this kind of lending operation, a loan is made to one person or business at a time and, as repayments are made, funds become available for new loans to other businesses – the money revolves from one person or business to another.

Two interest-free revolving-loan funds were set up by CHF in Lhok Seudu, which had been a bustling port on the west coast of Aceh before a 45-foot wave destroyed it, along with several homes and businesses. The local villagers had recognized the warning signs of the rapidly receding tide and almost all were able to escape to the hills as the massive wall of water broke through a small range of hills, breaking one island in two.

With a generous grant from singer/songwriter Alanis Morissette,

>> Building on Individual Entrepreneurship: The Kick Start Aceh Program

The Kick Start Aceh program, funded by Dow Chemical, supported small business owners in the Lamno area of Aceh who had received USAID-funded housing from CHF. Aiming to build local capacity to ensure sustainable economic development, the program offered business skills training for 74 small business owners and vocational training for 141 women.

Kick Start Aceh built the foundation for an attitude shift from relief and cash-granting to sustainable development and self-reliance for communities. Participants were required to pay for their own training, which had not been required since the tsunami. A revolving fund was established through a local cooperative, Koppas Bima, to make loans to the business owners.

Pak Mujarimin runs a shop that sells basic goods. He borrowed \$1,000 from Koppas Bima which he used to buy additional stock, such as cigarettes, fuel, bottled water, and rice. Since receiving the loan his profits have increased and he hopes to continue to improve his shop.

CHF was able to set up a fund for women and a fund for men, among a range of other projects. In 2005, the women's entrepreneur fund had 19 members who used the money to restart their microenterprises, selling poultry or fresh vegetables, sewing clothing and curtains. Today the revolving fund has 40 members who take turns using the loan capital to expand their businesses and improve their economic situation.

One of those businesses is a restaurant, the only one in the village, run by Leni, a mother of five. With pre-tsunami debts hanging over her head, it seemed unlikely that she would ever get her livelihood back.



PAK MUJARIMIN



PAK RIDWAN

The program also bolstered Koppas Bima. Struggling to meet the high demand for vocational training and microcredit loans after the tsunami, Koppas Bima was one of the only institutions in the region supplying these services. The staff were overwhelmed with the number of requests received and struggled to absorb the funding suddenly provided by the Indonesian government.

Recognizing the value of investing in local institutions, CHF began working with Koppas Bima staff to raise their capacity to the level of growing demand. Through partnerships with local and international private-sector partners, Koppas Bima received loan officer, financial and personnel management trainings. A modern client tracking system was set up and the local Microfinance Innovation Center for Resources and Alternatives is providing Koppas Bima with ongoing training and support to strengthen its microlending activities.

"But then CHF came and provided money to help me improve my income," Leni said. With the money earned from my business, I have been able to pay off my debts and provide for my family."

Another major avenue for expanding economic possibility and self sufficiency is through education and training. This year, CHF will begin construction of a nurse and midwife training center in Banda Aceh, with support from AmeriCares, and completed construction of Aceh Polyteknik, a new vocational training polytechnic institute in Banda Aceh. (See page 18 for more on Polyteknik Aceh)

"The polytechnic opens a new chapter in rebuilding Aceh society," said Rhonda Zygocki, Chevron vice president for Policy, Government



LENI



POLYTEKNIK ACEH

and Public Affairs. “It will build the capacity of dozens of community leaders, teach thousands of students critical technology skills and help restore countless livelihoods.”

To help create employment and stimulate the economy in Yogyakarta, CHF worked with representatives of animal husbandry, handicrafts, and alternative fuel production under its Yogyakarta Recovery Assistance Program (RAP), supported by AIG through Give2Asia. Through RAP, CHF introduced new technologies to small businesses and cooperatives in the Bantul region and supported alternative income generation activities, all of which helped communities to recover after the earthquake and protect their own long-term economic well-being.

CHF chose six communities that had received shelter and other emergency assistance from the organization after the earthquake. One of these, the Setiya Mitra cooperative, had been promoting environmentally sustainable and cost-effective agriculture and animal husbandry in Bantul for three years when the earthquake hit Java. The cooperative’s work was destroyed, along with its animal feed and organic fertilizer production facility, tools and equipment. With RAP support, 10 members of the cooperative were able to rebuild the production facility and conduct trainings on in-house production of organic fertilizer and animal feed for 25 local farmers’ groups.

Some communities were hit harder than others. The region has a long tradition of bamboo kitchenware and crafts production. The earthquake not only destroyed homes and the regional markets where these products were sold, but the cost of the industry’s raw material, bamboo, soared out of reach because of the demand created by shelter reconstruction efforts.

To revive the industry, CHF supplied raw materials for immediate production and helped the community plant bamboo seedlings to ensure a renewable supply for future use. New connections were also made with national trading houses to ensure sustainable markets for these crafts.

US Ambassador to Indonesia Cameron Howe, who has visited villages throughout the country, said it is clear that the way to get US government and private-sector support into communities that need help is through partnerships with organizations like CHF, that have the connections.

“When I look at a foreign government trying to find ways to tap into individual entrepreneurship, rebuild community economies in that way, I see that it’s a real challenge,” he said. “The government may want to support it, but really it’s the non-governmental organizations on the ground, with connections in the community, who have the capacity to do it.”



>> Polyteknik Aceh: A World-Class Training Institute

In July 2008, CHF International completed construction of Polyteknik Aceh, a new vocational training institute in Banda Aceh, built with a \$4.8 million grant from the Chevron Global Fund, as part of a \$16 million global development alliance agreement with USAID and the provincial government of Nanggroe Aceh Darussalam.

Cameron Hume, US Ambassador to Indonesia, was in Aceh for the inauguration ceremony of the building in August. He was impressed by both the beauty of the building and the speed at which it went up.

"You would be so proud of this place if you saw it: it's a beautiful building and will make a real contribution to Aceh," he said. "It was built in 13 months... does CHF have some kind of magic wand?"

The world-class building has a total of 65 functional rooms including 33 classrooms, 22 laboratories, lecturers' offices, administration support offices, an auditorium, a library, and an amphitheater. Initial enrollment will total 300 students, and it will ultimately accommodate around 1,200 students.

"Polyteknik Aceh will play an essential role in meeting the demand for skilled manpower and educating a new generation of Acehnese," said Mawardy Nurdin, Mayor of Banda Aceh. "The polytechnic will be open to all the people of Aceh and help meet the needs of industry in the province."

Polyteknik Aceh will provide vocational training in applied technology fields such as information technology, mechatronics engineering (a combination of electronic and mechanical engineering), electronics telecommunication and business accounting. These fields correspond with local industry needs and are critical to continued reconstruction and development in the province.

"Through this partnership, we are helping Aceh achieve and sustain greater economic growth, educational opportunities and human and institutional capacity than it had before," said Steve Green, managing director of Chevron's IndoAsia Business Unit. "Partnerships are part of our values and central to the way we conduct community engagement programs."

Improving Health and Sanitation

CREATING A SUSTAINABLE ENVIRONMENT

CHF International has risen to be a leader in public health improvement through its application of a comprehensive approach to assessing, designing and implementing public market, housing and sanitation programs. This approach emphasizes three areas that CHF judges as of equally vital importance:

- individual and community knowledge and behaviors that affect health
- the technology available to support improved health practices, and
- the institutional environment upon which any long-term success ultimately depends.

CHF has applied this approach successfully in Indonesia where the organization has been engaged to respond to a range of community and environmental health problems – from food safety in public markets to community water supply and sanitation to avian influenza and other health threats.

Rebuilding public markets was a major step in revitalizing local economies and empowering communities in Aceh, Yogyakarta and also in Southern Sulawesi, an island northeast of Java. In the process, CHF also found a channel for programs focused on sustainable health and sanitation, and environmental stability. By tying these programs to the local markets – hubs of community activity and source of most foodstuffs – entire communities can both contribute to and profit from them, creating a circle of sustainability.

“There is a greater sense of health and hygiene post disaster,” explained Dr. Sue Hassmiller, senior program officer and team leader

for the Nursing Team of the Robert Wood Johnson Foundation, who recently completed a six-year term on the National Board of Governors for the American Red Cross as chair of the Disaster and Chapter Services Committee.

“With few resources and little adequate health care in some areas, the ability of a population to boost their own health and hygiene decreases the risk for morbidity and mortality,” Dr. Hassmiller said.

CHF installed proper drainage and solid waste management systems in markets rebuilt in partnership with the Red Cross. Proper food preparation and drainage for markets were designated, separating fresh produce from fish and chickens. (See page 13 for more on Healthy Markets).

Dr. Hassmiller saw the healthy markets first-hand when she visited Aceh in 2006 as a member of the Red Cross Board of Governors to review the outcomes of the agency’s disaster work.

“They were among some of the most impressive things that I saw,” she said. “What impressed me most was the great sense of self-sufficiency these markets created in the local people.”

The markets also provide forums for community health and hygiene campaigns. Disease spreads fast in tight knit communities, with potentially deadly effects. In support of World AIDS Day, in December 2007, CHF partnered with local health workers to raise awareness of HIV/AIDS in Aceh. Banners were hung and informational brochures were distributed in seven CHF-reconstructed markets, as well as a rural high school.

Using the Market to Combat Avian Influenza

Since late 2003, when the highly pathogenic avian influenza virus (HPAI) H5N1 was first identified in Indonesia, it has quickly spread throughout the country, and is now endemic in poultry populations in all of the nation's major population centers. Throughout this period, Indonesia also registered the highest number of human AI infections in the world (approximately 140 as of September 2008) with an alarming 80% fatality rate. These infections have nearly all resulted from direct exposure to infected birds.

The spread of H5N1 in Indonesia has been largely attributed to domestic poultry movement within the country rather than wild bird migration. A critical factor in domestic poultry movement is the traditional marketplace, of which there are more than 13,000 throughout the archipelago. Such markets are often characterized by poor water supply and sanitation, a lack of proper slaughtering facilities, inadequate cleaning and disinfection, and other deficiencies that promote the spread of H5N1.

Under its healthy markets program, CHF began working with the traditional market community in Indonesia in 2007 to better understand and address the AI threat. Based on research conducted in Jakarta, Yogyakarta, Makassar and other areas, it was found that not only were basic hygienic practices lacking, but that very few poultry vendors, let alone customers, could identify the symptoms of AI in the poultry they sold. Moreover, the layout, infrastructure and institutional support (such as health inspection services) in traditional markets were wholly inadequate for addressing the avian influenza threat in any concerted fashion.

In recognition of its active promotion of improved health conditions in traditional markets, CHF was awarded a grant by AusAID to undertake a two-year program in one of the areas most affected by AI, South Sulawesi.

The objectives of the program include:

- To improve local knowledge, attitudes and practices related to HPAI prevention.
- To build capacity of market management staff and local officials to develop and implement policies to reduce HPAI transmission, including inspection services that support compliance with bio-security measures.
- To undertake high-impact infrastructure improvements including those related to water supply, sanitation, solid waste management in both slaughtering and vending areas.

Disease can travel rapidly in water. In many parts of rural Indonesia, clean, easily accessible water has been only a dream for the people who live there. Recognizing the urgent need for hygienic water supply and effective sanitation systems, CHF engaged local communities in design and implementation strategies that apply innovative technologies that are environmentally sound and sustainable.

In Yogyakarta, CHF programs have rehabilitated over 400 household wells and CHF has pioneered a new technique of pre-fabricating ferrocement components to rapidly build and assemble septic tanks that are far more cost- and time-efficient than traditional models.

Similarly, CHF has equipped over 1,000 households in post-tsunami Aceh with latrines and septic tanks which, in critical locations, include tertiary water treatment through development of wetlands reed beds and garden tank filters prior to discharge back into the natural water systems.

In 2008, CHF completed a gravity flow and five solar-powered community water systems that have created healthier environments in several villages and markets. In addition to AmeriCares – the main funding partner – CHF partnered with UNICEF and Norwegian Red Cross in the execution of this innovative and ground breaking project, which has since become part of CHF's broader work with USAID.

With USAID this solar technology is now being brought to other markets in Aceh. In some of these, the solar-powered water supply will be augmented by rain water harvesting technology. In an area such as Banda Aceh where between 1000 and 2000 mm of rain falls annually, this can mean 1 to 2 cubic meters of free rain water for every square meter of catchment surface, a very significant volume of water at no additional operating cost to the market management or vendors.

CHF has applied its expertise at every level in the development of solar-powered community water systems in Indonesia. To date, this has involved building 14 community-owned and managed systems that pump and deliver water at a fraction of the cost of traditional methods, and in volumes well in excess of minimum daily requirements (in some cases as much as 100 liters per capita per day). These innovative systems have been installed in communities in Aceh, Yogyakarta and Central Java, and in all cases are exceeding CHF and community expectations.

Because the maintenance requirements and operational costs of these CHF-built solar-powered systems are significantly lower than conventional systems, local people are able to manage them without external support. An additional benefit is the prestige associated with having environmentally-friendly and “cutting edge”

technology in one’s community. The combination of lower costs (lower user fees), simple maintenance, prestige and environmental friendliness is resulting in real pride in ownership. This translates into dramatically increased prospects of long-term sustainability of this community ownership model.

>> Solar Power Brings “Green” Water to Villages

For thousands of villagers living in Indonesia’s rural regions, there is no regular access to water. Community members – usually women and youth – spend hours each week traveling to open springs or community wells to collect water that they use for personal consumption, for their animals, and for their subsistence farming activities. Lack of clean drinking water and poor sanitation means that many of these families frequently suffer from a range of illnesses, including diarrhea, dengue fever, and malaria.

In Java, the May 2006 earthquake exacerbated the problem, destroying access roads and cutting off remote communities, making life even more difficult for hundreds of rural villages.

Nestled away in the mountains of Central Java, the village of Pangkah is one such community. With about 100 households, the village is widespread as most residents are farmers. Until recently, their only nearby source of drinking water was an improved natural spring. Pangkah is one of 15 locations where CHF is building an integrated water supply system.

With all such water supply systems, CHF involves the communities in the design and implementation process from day one. Through a consultative process that engages the locally selected water management committee, the system is designed by CHF’s water and sanitation en-

gineers while construction is done entirely by Pangkah villagers, with the support of CHF’s technical teams. This locally-driven process is in line with the Indonesian tradition of gotong royong, and reflects CHF’s mission to serve as a catalyst for positive change by engaging communities and empowering them through the development process.

The water systems CHF has installed are primarily solar-powered, a unique characteristic that makes them far more effective in the long run and relatively simple for the communities to maintain. And the CHF staff, such as Widi, an engineer who helped build the site, is equally excited as this is the first such system to be installed in this region.

“My favorite part is talking to the community,” she says. “It feels good to hear from them what their problem is and then be able to fix it.”

Widi has a degree in environmental conservation, so when she began working on the project, she decided to reach out to the government for a donation of trees to replace the ones they would have had to cut down to install the system. With Widi’s persistence, CHF has received 600 teak trees to plant around all the water pumping sites, yet another way that this project is helping Yogyakarta rebuild and bring its people access to safe and “green” water.



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