CRUSH

CHF, with USAID funds, has launched an innovative new program in Haiti that is turning buildings destroyed by the January 12 earthquake into valuable sand and gravel that is being used in the recovery effort.

CHF’s program, called CRUSH (Creating Rubble Recycling Solutions for Haiti), was launched in Petit-Goave on October 18 and is intended to eventually expand to several sections of the earthquake-affected area.

The CRUSH program is currently using 20 portable crushers supported by Cash-for-Work laborers to process rubble at numerous sites in Petit-Goave. It is also planned that during the month of January, additional crushers will be operating in Port-au-Prince. The portable crushers were built by Red Rhino Crushers in the United Kingdom, representatives of which came to Haiti in mid-October to train CHF local staff in how to use and maintain the machines.

CRUSH is unique in that it is the only large-scale program in Haiti that is actively converting rubble into material that can be used on-site to improve communities affected by the earthquake.

“My house had two floors with five rooms on the first floor and six on the second – it was completely destroyed during the January 12th earthquake,” says Gabin Nerilus, 37, standing next to his former home. Not only didn’t Gabin, a taxi driver in Petit-Goave, have the money to pay for his property to be cleared of the rubble but there were further difficulties. “Because the site is between two other houses [that are still standing] the bulldozers could not work in this space,” explains Gabin.

The Cash-for-Work teams are working on not only removing and clearing all the rubble from Gabin’s land but are recycling it to make into usable material. “Once I can start rebuilding our home we can use the sand to make cement blocks in order to construct the posts and the base of the house,” he says.

- 20 crushers built by Red Rhino are being used to crush rubble and convert it into usable building material.
- 484 workers are employed to process the rubble.
Among other uses, CHF has been using sand and gravel to construct concrete floor slabs for its shelter program. Additionally, CHF is planning to use gravel from the crushers for critical road projects, which have been identified in concert with the local government, and to construct floors for schools that are still now operating out of tents.

The CRUSH program is also unique in that it dramatically reduces the transportation costs and bureaucratic obstacles associated with other rubble removal programs in Haiti. Suitable, approved rubble dump sites in virtually all parts of Haiti are either of insufficient size or are so far away from affected areas that they are cost prohibitive both in terms of time required to access them as well as money required to fuel the trucks. Processing the rubble on-site is much cheaper overall and will allow CHF to operate much more efficiently than other rubble removal programs in Haiti.

The rubble recycling program is also injecting money into the local earthquake-affected populations by employing people through the Cash-for-Work program. “Right now we are employing 484 CFW laborers in this program,” says Michel Pun, CHF’s Program Manager for CRUSH. “These workers demolish the houses, separate the rubble and operate the crushers,” explains Michel. There is also a separate team of mechanics who oversee and maintain the crushers and engineers directing the demolition and reconstruction works.

Fast Facts

- $16 is the average cost to crush a cubic meter of rubble.
- $26 is the average cost overall of recycling one cubic meter of rubble.
- 56% of the cost of crushing is for Cash-for-Work laborers thus injecting money back into the earthquake affected local economy.

2,715 m$^3$ of rubble crushed and recycled up to date.

The crushers are powered by diesel engines.

Two models are used, each able to crush on average 2 and 3 cubic meters of rubble respectively every hour.

6 hours a day is the average the crusher can work.

15m$^3$ of rubble can be crushed on average in one day by one crusher.

250m$^3$ is on averaged crushed in a day with the 20 crushers operating.
Rosemène Vilbrun, 47, widow and mother of eight, is grateful for the work. “This opportunity has helped me a lot; I have been able to pay for my children’s school fees and other needs,” she says. Rosemène signed up to be the operator sitting on top of the crusher despite that post’s added difficulties. “While some of the other workers refused to do that task, I can do it and I want the work,” she says determinedly.

In two months, CHF’s crushers have already processed close to 3,000 cubic meters of rubble to produce an equivalent amount of sand and gravel.

Petit-Goave Mayor Marc Roland Justal was complimentary of CHF’s program. "I love the new rubble recycling program that CHF is implementing here," said Justal as he toured one of CHF’s recycling sites. The mayor continued, "Instead of just throwing rubble into the ocean or rivers, we can dispose of it on site and for useful purposes."

The mayor has collaborated with CHF to identify the best possible uses for the processed rubble, in particular identifying key dirt roads that are being reinforced by adding a layer of gravel.

The CRUSH program is funded by USAID and will continue through February 2011.

For more information about Red Rhino Crushers, see their website at http://www.redrhinocrushers.com

- 3,427 cubic meters of rubble removed up to now.
- 2,715 cubic meters of that rubble has been processed.
- 25% of recycled material is given back to property owners.
- Among other uses the recycled material has been used thus: 900 m$^3$ for shelters, 508 m$^3$ for roads, 75 m$^3$ to build a Cholera Treatment Center.