

**Cooperative Housing Foundation (CHF)
Post-Mitch Infrastructure Reconstruction**

Quarterly Report – Fourth Quarter FY2000

Date: September 15, 2000
Contractor: Cooperative Housing Foundation (CHF)
Reporting Period: June 1 to August 31, 2000 (Report dated 08/31/00)
Grant Number: Cooperative Agreement No. 520-A-00-00-00004-00
Program Leader: James S. Schenck, Director CHF/CIT Guatemala

I. Background

In late October and early November 1998, tropical storm Mitch ripped through Guatemala, severely affecting the northern municipality of Ixcán in the department of El Quiché. Approximately 1,000 families were left destitute and required immediate humanitarian assistance in the Ixcán alone. Most farmers in the area lost all or a portion of their corn crop, the principal source of income for these communities. The storm also battered the already scarce infrastructure, particularly the transport routes throughout Ixcán.

In early January 1999, the Communities in Transition project of the Cooperative Housing Foundation in Guatemala (CIT/CHF) presented a proposal for emergency funds to repair and/or replace the infrastructure damaged in Ixcán by tropical storm Mitch. The transport corridors, both vehicular and pedestrian, were particularly affected, as well as a few schools. Their immediate reconstruction was necessary to guarantee the local population's access to health care, education services and markets.

On November 3, 1999, USAID granted CHF \$1,994,622 under Cooperative Agreement 520-A-00-00-00004-00 to implement the project referred to as, "Rural Economy Recovers from Hurricane Mitch and is Less Vulnerable to Disaster."

II. Activity Objectives

A. Primary Objective

To reconstruct vehicular transport routes in the Ixcán in order to restore access to health care, education services and markets.

B. Specific Objectives

- Reconstruction of thirteen (13) concrete vehicular bridges;
- Reconstruction of one (1) Bailey vehicular bridge;
- Repairs to one (1) Bailey vehicular bridge; and
- Reconstruction of 100 kilometers of gravel roadway.

C. Objectives/Results/Indicators

OBJECTIVES	RESULTS	INDICATORS
<p>13 Bridges Built</p>	<p>1) Cantabal Bridge - Bridge in use.</p> <p>2) Petrolero Bridge – I-Beams launched.</p> <p>3) Tzutuj Bridge</p> <p>4) Santo Tomas Bridge</p> <p>5) Cux Bridge</p> <p>6) Olivos I Bridge</p>	<p>1) The provisional bridge surface remains in place. Final work on the bridge (the concrete slab) will continue after the rainy season.</p> <p>2) On July 13, passage was opened and the provisional bridge was removed.</p> <p>3) On July 7, the steal I beams were launched and the concrete forms were mounted. On July 26 the concrete slab was poured. On August 14 and 15 the security railing was installed and the area cleaned and passage opened on August 16.</p> <p>4) On July 14 the I-Beams were installed. Concrete forms were mounted on August 3 and the slab poured on August 11. Construction was completed and passage opened on August 31.</p> <p>5) Construction of the bastions was completed on July 14. I-Beams were launched and welded August 2. The concrete forms and steel reinforcement was mounted on August 17 and the concrete slab was poured on August 24. Construction was completed on September 17 and passage was opened on September 22.</p> <p>6) Construction of the bases began on August 1 and was concluded on August 18. The I-Beams were launched on September 7. The concrete forms and steel reinforcement were</p>

	<p>7) Bridge at Kilometer 31.5 – Road to Tres Ríos</p> <p>8) Start-up on Santa María Dolores Bridge</p>	<p>mounted on September 18 and the concrete slab was poured on September 27.</p> <p>7) Construction of the bastions began on August 22 and was finished on September 22.</p> <p>8) Bailey Bridge arrived and transported to the Ixcán.</p>	
One Bridge Repaired	Initial work for Xalbal Bridge repair planned.	Bailey Bridge parts received and transported to the Ixcán.	
Rehabilitation 100 kms. gravel road		Progress During Quarter	Total Progress
	1) Grading & road conformation	1) 34%	1) 70%
	2) Drainage pipe transportation & installation.	2) 55%	2) 55%
	3) Gravel extraction	3) 50%	3) 85%
	4) Gravel transportation and on-site use.	4) 25%	4) 60%
	5) Clay extraction, transportation and on-site use.	5) 0%	5) 66%

III. Narrative Report

Over the last ninety days, CHF has made significant progress on all fronts in achieving expected results. Six(6) of the 13 vehicular bridges have been finished and road rehabilitation is more than 50% completed. All remaining projects have been planned and construction is under design or has been initiated for all components. An illustrative list of specific activities follows:

- ◆ Negotiations with the steel I-beam supplier showed positive results. All steel beam components were delivered in July and have been transported to their respective work sites. Infrastructure Associate Director, Carlos Campos, is inspecting all of the pieces to confirm that they are complete. Final payment is expected for the month of October.
- ◆ Infrastructure and Environmental Mitigation staff continued to coordinate with each other in all bridge construction and road rehabilitation activities. The on-going review by the environmental mitigation team, in conjunction with Infrastructure personnel, has resulted in detecting and resolving environmental issues on the spot.
- ◆ Authorization was received from USAID, permitting the CHF Environmental Mitigation team to implement Environmental Impact Studies. The design of the Environmental Impact study for the Bailey Bridge installation in Santa Maria de Dolores has begun.
- ◆ The Project hosted two auditors from the Regional Inspector General (RIG) on July 26 and 27. The auditors were there to inspect progress on Infrastructure projects financed with Mitch funding. Informal observations of the auditors were taken into consideration and implemented immediately.
- ◆ In the Road Rehabilitation component of the project, CHF faced the dilemma of obtaining concrete tubing for drainage along the Franja Transversal del Norte. The option of bringing the tubing from Coban or Guatemala City presented problems both in terms of logistics and cost. CHF discovered that the Municipality of the Ixcán had purchased the equipment for producing concrete tubing with the purpose of establishing a municipally owned business. The business was inoperative, however, due to a lack of clientele. In conversation with the municipality, CHF was able to negotiate an agreement for the provision of the tubing needed. The project has not only obtained a necessary service, but is contributing to the local economy and assisting in the generation of employment. Because of CHF's business, the municipal enterprise has been successful in developing additional clientele.

IV. Success stories/Vignettes

CHF is consistently looking for ways to improve project implementation and maximize project resources. Each bridge project has provided valuable experiences that contribute to this process improvement. During the last quarter, two major changes in implementation took place:

1. During the FY 2000 Third Quarter, CHF assigned a work crew to build each bridge. This required the presence of the entire crew from start to finish. In the Fourth Quarter CHF changed its implementation strategy by creating three specialized work crews: (1) a crew for

bridge bases (bastions), (2) a crew for launching and mounting steel I-beams and, (3) a crew for mounting concrete molds and pouring the bridge deck. By implementing this new crew deployment, CHF can have various crews working simultaneously on different bridges in a more efficient manner.

2. On the first bridges, the innovative steel I-beams design resulted in a faster construction and project completion time. It was noted, however, that, because of the shorter length of the beams on-site welding was required. In many cases, it took as many as 10 days to launch and mount the I-beams successfully. CHF negotiated with the supplier to deliver future I-beams with a minimum length of 10 meters, eliminating the need to have welding done at the bridge site. Because of this change, in conjunction with the specialized work crews, CHF has succeeded in reducing the 10-day launching process to two days.

Please see the CHF/Communities In Transition website for bridge construction photographs as part of the Mitch Reconstruction activities

<http://www.chf-ixcan.org>

V. Expenses during this Period

Activity	Amount Budgeted	Previously Disbursed	Disbursed this quarter	Disbursed to date	Available
Road Infrastructure	\$ 1,994,622	\$ 414,233	\$350,000	\$764,233	\$1,230,389