

QUARTERLY REPORT

Fourth quarter FY 2001 (No. 9)

Guatemala Mitch Special Objective: Rural Economy Recovers from Mitch and is Less Vulnerable to Disasters

Summary: This ninth volume of USAID Guatemala's quarterly report on progress of grant assistance under the Hurricane Mitch Special Objective (SpO) shows that virtually all program targets have been met as of September 30, 2001. What remains to be addressed during the final quarter of Mitch reconstruction is the final liquidation of accounts as well the completion of a few activities in IR2 and IR3. In IR2, the USACE PASA was completed, although USACE personnel will continue to inspect and certify the construction of a community flood dike and two irrigation intake improvement and protection works. MAGA-ICTA's seed reproduction activity still has harvests of corn and sesame seeds for November and December. Under IR3, the formal inauguration of some CARE and CRS water and sanitation systems are pending, and the Center for Disease Control's chloroquine resistance study was extended to December 2001. A final financial expenditure and narrative summary report will be prepared for the period ending December 31, 2001, the formal completion date of the Central American and Caribbean Emergency Disaster Relief Fund.

Key Intermediate Results: (1) Disaster preparedness enhanced; (2) Agricultural productivity recovered on more sustainable basis; (3) Community disease prevention and control systems strengthened.

Quarter Highlights:

July 10, 2001. Flood protection infrastructure at La Tinta is inaugurated. The \$620,000 project was designed to last 50-years and implemented to protect 1,500 families in the community of La Tinta from flooding. It also protects 1,700 hectares of agricultural land. The Minister of Agriculture and the USAID Mission Director, along with Alta Verapaz governor, and the mayor of La Tinta headed the list of dignitaries attending the event.

September 5 to 18, 2001. During this period CRS convened six events with communities and CONRED to legalize a total of 58 local disaster coordination committees formed by CRS disaster preparedness staff.

September 10 to 17, 2001. The General Accounting Office (GAO) began a visit to Guatemala September 10th to review progress on Hurricane Mitch reconstruction activities. The visit was to last to September 20th, but was cut short following the events of September 11, 2001. During the shortened visit, the three-person GAO team was able to travel to Ixcán to visit the 13 bridges and 100 kilometers of road being reconstructed by the Cooperative Housing Foundation (CHF).

IR 1: Disaster Preparedness Enhanced

Key Intermediate Results: (1) Mapping, data collection, and targeting most vulnerable communities; (2) community organizations strengthened; (3) CONRED network strengthened.

Performance and Prospects: USAID resources directed at IR 1.1 and IR 1.3 in support of the CONRED system have been fully utilized. All that remains is some of the CAMI funds assigned to the Mission for the equipping of CONRED facilities and the training of CONRED personnel. Over the previous several quarters, most of the \$500,000 of CAMI funds for equipping CONRED had been expended. During the just completed quarter, proposals were received for a training component designed to complement the equipment and technical assistance already provided. As the quarter ended, an award was being prepared for a contractor to carry out training of CONRED departmental delegates and municipal coordinating units in emergency management principals and search and rescue techniques. Training start-up is now set for first quarter FY 2002. A few additional remnant funds may remain and their use will be determined in coordination with CONRED.

Meanwhile, IR 1.2 *Community Organizations Strengthened*, both CRS and CARE met their targets.

The CRS target for the life of the SpO was to develop disaster-coordinating committees in 100 communities. With achievements this quarter, CRS met and surpassed its original target. The summary is as follows:

- In 56 communities formed local community disaster coordination committees (COLRED) during 2001, (with the 51 formed in 2000 the life of project total for CRS is=107 committees).
- Have legalized COLRED in 107 communities (107% of two-year Mitch target).
- Emergency action plans completed in 107 COLRED.

CARE met its original target of forming 5 municipal (COMRED) and 25 community disaster coordination (COLRED) committees (30 total), and developing risk maps and emergency management plans for each. CARE modified its target to include a sixth municipality, Purulhá in the Matanzas watershed during 2nd quarter FY 2001. During this quarter, CARE trained and formed the COMRED in Purulhá, and COLREDS in the additional 15 communities. CARE has exceeded the original target by 16 disaster coordination units.

CARE, working with the six municipalities and the original 25 local communities, developed disaster preparedness plans for each community including risk maps, for a total of 31 disaster plans readied. Also, CARE installed in each of the six municipalities of the Polochic watershed, a radio communications system and a meteorological station for flood early warning.

CARE's cumulative achievements are:

- Forty-six (6 municipal COMRED and 40 community COLRED) committees formed, legalized, and trained in the cycle of disasters and in development of emergency disaster plans for the community.
- In coordination with CONRED installed 6 radio and 6 meteorological stations to function as early warning systems.



Polochic River Valley. During fourth quarter FY 2001, CARE, along with CONRED, the National Civilian Police, the Guatemalan Red Cross, volunteer fire departments, health centers and military bases, carried out five emergency simulation drills. Two flood drills, two landslide drills and one forest fire drill that involved a total of 500 people were conducted.

Also during the quarter, CARE coordinated the implementation of five emergency drills in several communities along the Polochic River valley. In two of these municipalities, Panzós and Senahú, CARE also helped establish emergency warehouses that now stock some basic food supplies, small mattresses, cooking utensils and tools. These emergency rooms are managed by the respective municipal coordinators (COMRED).

IR 2: Agricultural Productivity Recovered on More Sustainable Basis

Key Intermediate Results: (1) River, land and small scale irrigation systems rehabilitation, (2) Polochic and Motagua watershed management, (3) Seed recovery and multiplication, (4) Microenterprise recovery and credit, (5) Rural road repair in Ixcán, Quiché, and Alta Verapaz.

Performance and Prospects: As reported last quarter, CRS did review its targets and requested an amendment to its cooperative agreement that involved scaling back some of their targets (see below), and extending the end date to November 30, 2001. CARE's cooperative agreement was also amended to extend to November 30, 2001 to enable it to complete IR2 (and IR3) activities still underway. The PASA with USACE and the Cooperative Agreement with ANACAFE were finished on time. Remaining to be completed by December is the Flor de Sesajal road (an unplanned but important FARs project being funded by returned CRS funds), and being completed by early October are the Cahaboncito protection dike, and the El Rancho and Cabanas irrigation intakes. Most other partners have met their September 30, 2001 project completion targets.

IR 2.1 River, land and small scale irrigation systems rehabilitation

USAID partners working to achieve results in this IR included the U.S. Army Corps of Engineers (USACE), the Ministry of Agriculture-Cipreda (MAGA-Cipreda), the National Coffee Growers Association (ANACAFE), the Center for Tropical Agricultural Research and Education (CATIE), and CRS.

USAID and MAGA-Cipreda completed eight project designs under the Fixed Amount Reimbursable (FAR) arrangement totaling approximately \$3,888,443. This total includes five FARs sites previously completed: Santa Lucia at \$780,763; La Playa at \$450,510; Quirigua (both the original work and an amplification) at \$399,341; El Rancho Site 1 at \$186,394; El Rancho Site 2 at \$75,075. FARs to be completed early October include: Cahaboncito at \$471,500 (funds were returned from CRS' cooperative agreement for this project) and Cabañas at \$1,034,400, and El Rancho-El Jicaro at \$482,460. In addition to these FARs, CARE has completed a USACE designed-project at La Tinta valued at \$620,000 using funds in its cooperative agreement. In total, nine USACE designs were implemented.

A tenth FAR-managed project, *the Flor de Sesajal road*, was added during the last quarter when funds were made available by CRS' return of \$511,244 from its cooperative agreement. Proposed by CARE at the beginning of the Mitch reconstruction period, the road is intended to enable the 600 residents of Flor de Sesajal village, a flood and landslide prone community, to have an emergency evacuation route. Current access is by foot only. The improved access will have economic benefits for the residents as well. The 6 kilometer road being constructed through MAGA-CIPREDA, will be completed in December 2001.

ANACAFE, under this IR, is assisted communities in Alta Verapaz . Their life of SpO target was to rehabilitate 1,600 hectares of coffee plantations, and rehabilitate 18 coffee processing plants benefiting 14,000 small coffee farmers. ANACAFE achieved these targets as of the 2nd quarter FY 2001.

During the quarter, CRS requested some changes in targets (see below). These proposed changes were submitted to USAID in August 2001. Following USAID approval, the cooperative agreement was amended, which included the return of \$511,244 (\$466,229 from IR2 and \$45,015 from IR3) to USAID. The \$466,229 of IR2 funds are being applied to an additional FAR, see 2.1 the *Flor de Sesajal* road project above, (the returned IR3 funds are being used to establish chlorine banks in support of potable water projects, see the IR 3 section of this report that follows below).

CRS' four objectives for this IR include: (1) sustainable management of soil, water and forest resources in 11 micro-watersheds (reduced from 24); (2) improve crop productivity of 2,000 hectares damaged by Mitch (reduced from 3,000 hectares); (3) promote land tenure security in 43 communities to contribute to sustainable management of soil, water and natural resources (reduced from 100); (4) improve income generating capacity of 500 farm families (reduced from 2000). Achievements reported below correspond to the recently approved reduced targets.

Cumulative achievements for objective one:

- a) 11 selected micro watersheds = 18 established, 164% of target.
- b) 200 hectares reforested/regenerated = 491 hectares (881,943 trees), 246% of target.
- c) 300 hectares under agro-forestry = 494 hectares (577,200 trees), 165% of target.

Cumulative achievements for objective two:

- a) 25% increase in crop productivity =26% achieved.
- b) 1,500 farmers planting with improved seed = 2,293 farmers (153% of target).
- c) 2,000 farmers with improved soil management = 4,372 farmers (219% of target).
- d) 2,000 hectares under improved practices = 1,517 hectares (76% of target).

Cumulative achievements for objective three:

- a) Promote land tenure security of 43 communities (land tenure analysis, land measurement, land titling/legalization process) = 53 (123% of target).
- b) Communities completing legalization process for title to land = 57 (133% of target).

Cumulative achievements fourth objective:

- a) 32 community banks trained and operating = 51 (159% of target).
- b) 500 families receiving credit to date = 1,126 (225% of target)
- c) 40 local producers using improved seeds with ICTA = 124(310 % of target).
- d) 200 grain storage units (silos) = 366 (183% of target).

Under its IAA the USDA/Forest Service provided follow up technical assistance during the quarter for fire management and watershed rehabilitation in the Sierra de las Minas Biosphere Reserve (SMBR) managed by the “*Fundacion de Defensores de la Naturaleza*” (FDN). During two visits technicians worked with FDN to finalize installation of three meteorological stations in the SMBR, evaluate rehabilitation of landslide and erosion areas, and assessed pest management problems related to pine bark

beetle and mistletoe.



FDN staff and Luis Rivera of the USDA/Forest Service, survey regeneration of watershed improvement sites. About 82% of the 100 planned structures have been completed equal to approximately 250,000 square meters of landslide area treated. Both tree seeds and seedlings were used to enhance regeneration of eroded and slide areas.

IR 2.2 Polochic watershed management

CARE and MAGA-Cipreda were the two partners working under this IR. CARE’s two objectives were: (1) rehabilitation of agriculture and watershed areas through reforestation and improved natural resource management in 270 communities along the Polochic and Cahabon river valleys and their tributaries, and (2) assist 10,800 farming families from 270 communities in the departments of Alta and Baja Verapaz adopt soil conservation, agroforestry and diversified agricultural techniques. Under its first objective CARE targeted 8 results. A cumulative summary of achievements is as follows:

- 1) SpO Target: work with five municipalities to develop land use planning maps – Cumulative result: five maps of 1:50,000 scale for San Pedro Carchá, Lanquín, Cahabón, Panzos, and Senahú completed. During the quarter a sixth map for the Matanzas river watershed was added. The information is digitized and contains data on soil characteristics and use, conflicts, social maps, population pressure on resources, economic aspects.

- 2) SpO Target: develop an environmental education program for 2,600 primary school kids in 52 schools. Cumulative Result: Design of an Environmental Education Curriculum and Manual for 3rd through 6th graders. Program was designed and to date a total of 3,000 students in 64 schools have participated.
- 3) SpO Target: develop a municipal strategy for forest fire prevention and control – Cumulative Result: 55 extension workers and 540 forestry promoters trained in 240 communities in forest fire prevention and fire fighting; a campaign organized.
- 4) SpO Target: develop forest management plans in four intervention municipalities, including identifying and training a municipal forestry technician. Cumulative Result: Four forest management plans completed for San Pedro Carchá, and San Miguel Tucuru, Panzos and Lanquín.
- 5) SpO Target: develop a training program for 12 municipal forestry technicians. Cumulative Result: One seminar for municipal forestry technicians on forest management and forest inventories was conducted by INAB, the National Forest Service, in January 2001. No activity for the quarter.
- 6) SpO Target: develop a reforestation incentive scheme for 669 hectares in 270 communities paying \$488,185 to 2,851 families who will also plant 712,750 multipurpose (pine, cyprus, maple) trees. Cumulative Result: 240 communities organized, 2,703 families benefited, 750,000 seedlings distributed for a total of 662 hectares reforested, \$253,100 of forestry incentives paid out.
- 7) SpO Target: 2,851 families adopt rational use of forest resources. Cumulative Result: Training of 2,973 families on forest management topics continues; 55 municipal extension workers and 540 forestry promoters trained in soil conservation, crop diversification, analysis of the use, sub-use and over-use of soils, and forestry incentives. Achieved.
- 8) SpO Target: strengthen the capacity of the 15 municipal governments in the two Verapaz departments in natural resource management. Cumulative Result: A training plan has been developed divided into sectors based on Polochic sub-watershed areas.

Under its second objective CARE is targeting 2 results. Cumulative achievements to date are as follows:

- 1) SpO Target: Agro-forestry adopted by 5,680 families who will plant 688,936 coffee, macadamia, cacao, citrus, and allspice trees; 2,700 families will plant 35,100 multi-purpose shade trees. Cumulative Result: 5,680 families have planted 1,200,685 (coffee, avocado, macademia, allspice) trees planted on a total of 1,092 hectares; 77,198 shade trees (ingas and red cedar) have been planted benefiting 4,130 families on a total of 277 hectares.
- 2) SpO Target: soil conservation techniques imparted to 1,340 families; 37 extensionists and 486 promoters trained; 174,000 vegetative soil protection materials distributed. Cumulative Result: 1,600 families have been trained in soil conservation techniques; 42 extensionists and 540 promoters trained; 269,000 vegetative soil protection materials distributed (pineapple, vetiver, and flower shoots).

During the quarter, CARE completed two small-scale irrigation systems that will service about 69 acres.

Under sub-contracts with CARE, SHARE and “*Fundacion de Defensores de la Naturaleza*” (Defenders of Nature) (FDN) each implemented work plans directed mainly at watershed rehabilitation and reforestation. Reforestation targets and achievements have been included in CARE’s quarterly reporting. However, to indicate the scale of these sub-contracts, individual achievements are presented below. A third sub-contract was let with Solar Foundation. All three sub-contractors have completed their respective workplans.

FDN’s work plan had two results. They were:

- 1) Rehabilitate watersheds and agricultural areas in the Sierra de las Minas Biosphere Reserve (SMBR) by reforesting 10 hectares, training 150 families in 15 communities in forest management practices and development and diffusion of a campaign for the prevention and combating of forest fires. Cumulative result: 45 hectares reforested. 70 families trained in 7 communities. Forest management training given in 9 communities. Forest fire campaign on radio for four months along with publication and distribution of 1000 posters, 2000 brochures and forest fire training conferences held in 5 communities.
- 2) Orient 375 agricultural families in the SMBR toward sustainable agricultural practices. Cumulative result: Over 400 families received benefits that included workshops held in 15 communities on agro-forestry methodologies; coffee seed nurseries started with 3000 lbs. of coffee seed; organic fertilizers distributed.

SHARE targeted two results. First, rehabilitate 550 hectares of at-risk and degraded land in the Motagua watershed through reforestation, training on improved natural resources management practices, and distribution of wood-saving stoves. Second, help 600 small farm families recover their agricultural production through the adoption of sustainable agricultural practices including agro-forestry. SHARE surpassed its targets. The cumulative results with respect to major indicators are:

Result	Indicator Description	Life of Project Target	Actual Achieved	Percentage Achieved
No. 1.	Hectares reforested	550	632.84	115 %
	People trained and knowledgeable about improved watershed management practices	2,300	3,708	161 %
	Households using efficient wood-saving stoves	300	383	128 %
No. 2.	Farm families have recuperated their productive capacity	600	2,561	427 %

The Solar Foundation targeted the installation of 812 photovoltaic units for electric energy production and 812 improved cook stoves (that use fire wood efficiently) in 14 communities. Cumulative result: Installed 812 photovoltaic systems and 812 improved cook stoves. Community committees formed and trained in 14 communities to oversee maintenance, spare parts, and bookkeeping.

IR 2.3 Seed recovery and multiplication

The Ministry of Agriculture, through Cipreda and its technology unit ICTA, is the partner for this IR. MAGA-Cipreda-ICTA signed a project implementation letter for \$1.0 million for seed recovery and multiplication.

During the quarter, MAGA-Cipreda-ICTA continued the implementation of the program, to bring improved seed to 17,000 producers who lost seed stocks during Mitch. MAGA-Cipreda-ICTA is producing improved seed for corn, rice, black bean, potato, and sesame. The multi-step process involves first the production of an initial base seed and then multiplication of it as a registered seed. ICTA has also trained farmers to further multiply the certified seed. To date, ICTA has directly trained 371 technicians, and working through CARE, CRS, the Peace Corps and other groups has trained 1,340 farmers. ICTA's production targets for certified seed for each seed type were, corn= 430,000 lbs.; bean= 50,000 lbs.; rice= 200,000 lbs.; potato= 200,000 lbs.; sesame= 15,000 lbs.

- Cumulative achievement to date for each crop is corn= 326,600 lbs. (76% of target); rice= 203,625 lbs. (102% of target); sesame= 3000 lbs. (20% of target); bean= 71,708 lbs. (143% of target); potato= 150,040 lbs. (100%).

ICTA is still below target for corn and sesame. However, harvests for registered and certified corn and sesame seed will take place between early November and early December, when targets should be met. Meanwhile, the targets for the other seeds have either been met or exceeded.

A positive by-product of this activity is that the seeds being produced were available as a back up resource for distribution in response to the drought affected in Guatemala's northeast. The drought conditions in May and June of this year led to the failure of the first crop. However, seeds produced under this program were available for emergency distribution so farmers were able to plant a second crop when rains arrived in August.

IR 2.4 Microenterprise recovery and credit

- MAGA-BANRURAL is the main partner for the \$2 million provided under a project implementation letter. MAGA- BANRURAL met its target earlier in 2001 having extended \$2,000,000 in micro enterprise credits benefiting 13,200 families (200 over the original target).

IR 2.5 Rural road repair in Ixcan, Quiche, and Alta Verapaz

ANACAFE, under its \$3 million Cooperative Agreement is the largest partner for this IR. Their SpO targets included: 130 kilometers of road rehabilitated that will benefit 52,000 small coffee growers. The USAID road engineer continues to monitor the technical progress of the work. Following the engineer's accurate measure of the programmed road length, a revised target of 88.40 kilometers was set. ANACAFE has to date:

- Rehabilitated 102 kilometers of road.

Comment: Although the Cooperative Agreement has been completed, ANACAFE still expects to complete the original 130 kilometer target by December 31, 2001. As reported last quarter, ANACAFE is leveraging the corrected 88.4 kilometers target using multiple agreements with municipalities. As of September 30, 2001 three municipalities (Santa Cruz, Alta Verapaz, Cahabon, and San Pedro Carcha) had already entered into co-financed agreements with ANACAFE. Through these arrangements ANACAFE expects to complete the remaining 28 kilometers by December 2001.

Through its \$1.95 million Cooperative Agreement, CHF is rehabilitating rural roads and bridges in Ixcán. Their SpO targets are: (1) reconstruct 13 concrete vehicular bridges; (2) reconstruct one Bailey vehicular bridge, (3) repair one Bailey vehicular bridge, and (4) reconstruct 100 kilometers of gravel roadway (the Northern Transversal Highway). Cumulative achievements are:

- Thirteen bridges completed and open to regular traffic.
- Install one bridge (Santa Maria Dolores Bailey Bridge) underway; completed.
- Repair of one Bailey bridge (Xalbal Bridge) completed.
- Rehabilitated 100 kilometers of the Northern Transversal Highway.

IR 3: Community Disease Prevention and Control Systems Strengthened

Key Intermediate Results: (1) Local malaria prevention and control programs strengthened, (2) Household water and sanitation programs established in selected areas, and (3) Capacity to prevent and control infectious diseases enhanced.

Performance and Prospects: CARE and CRS, principal partners in this IR for water and sanitation activities, have achieved their respective work plan targets, and MERTU-CDC completed most of its targets. During the quarter, CDC requested and was granted an extension of its program to allow the chloroquine resistance research component under its malaria activity to be fully completed. That work will be completed by December 31, 2001.

IR 3.1 Local malaria prevention and control programs strengthened

MERTU-CDC is the main partner in this sub-IR. MERTU-CDC targeted four results for this activity: (1) the distribution of insecticide-treated bed nets (ITN) in high risk malaria villages; (2) improved malaria case detection and treatment among lab workers in the affected health areas of Ixcán, Izabal and Escuintla; (3) epidemiological surveillance; and (4) monitoring and evaluation. MERTU-CDC 's achievements include:

Result #1 – Bed nets:

- Bed net production has been completed. A total of 11,275 units were produced by local microenterprises. To date 8,070 bed nets have been impregnated and delivered as follows, 3,994 in Ixcán, 1,500 in Izabal (El Estor), and 2,576 in Escuintla (Tiquiste).
- Delivery of bed nets to date:
Ixcán: No. Communities 23 No. Homes 1,227 (10 extension and 13 study Communities).
Izabal: No. of Communities 1 No. Homes 360
Escuintla: No Communities 2 No. Homes 956
Comment: Delivery in 12 communities assigned to control group in the study area will be accomplished in September 2001.
- Bednet extension community promotion activities to date:
Ixcán: No. of Communities visited 36 No. Homes 1,655
Izabal: No. of Communities visited 1 No. Homes 360
Escuintla: No Communities visited 2 No Homes 960

Result #2 – Malaria case detection and treatment:

- Volunteer Collaborator (VC) training to date:
Ixcán: No. VC trained 206 No. homes covered/VC (100) 20,600
Izabal: No VC trained 112 No. homes covered/VC(100) 11,200
Escuintla: No VC trained 96 No. homes covered/VC(100) 9,600

- Malaria cases are being promptly diagnosed and treatment delivered by trained personnel. Febrile survey and treatment of positive cases continues. In addition to active surveillance, passive case detection has been strengthened through the systematic supervision of volunteer collaborators.
- Five new malaria diagnostic centers serving 179 villages in Ixcán are functioning. Additionally one diagnostic center was been established in El Estor in August 2001 and another one in La Nueva Concepción, Escuintla in September 2001.
- Estimates of Chloroquine resistance. Detailed protocol was submitted to CDC /Atlanta and approved. Field survey work was initiated in August. Due to approval delays (USAID/G environmental approval) an extension was requested and approved allowing this component to be carried into December 2001. All other CDC malaria activities were completed as of September 30, 2001.

Result # 3 – Epidemiological surveillance:

- Computer facilities installed at Vector Control Offices continue to process computerized data entry. This system is producing the official E-1 form and monthly reports of the status of malaria at the local level.
- Computer program: cumulative results to May 17, 2001:

In the 26 study communities in Ixcán

No. febrile cases entered 1,880; 172 cases Positive: 143 P. vivax and 24 P. falciparum; 6 mixed infections. No. Cases treated; 172.

Result # 4 - Monitoring and Evaluation

This result tracks the impact of the impregnated bed net activity that will be measured in the 26 communities in Ixcán. It also reports on findings with respect to vector monitoring, malaria morbidity studies and entomological analysis.

Selective Control Measures and Malaria Vector Population Studies:

- Anopheline density: Monthly studies through August 2001 in the 26 study communities showed that the vector population was composed of *Anopheles darlingi* 37.5% (n=2345), *An. Vestitipennis*, 41.2% (n=2578), *An. Albimanus*, 7.1% (n=446), *An. Pseudopunctipennis*, 0.4% (n=88), and *An. Apicimacula & Punctimacula*, 13.4% (n=843).

IR 3.2 Household water and sanitation programs established in selected areas

CARE and CRS are the principal partners in this sub-IR with a technical support role being played by MERTU-CDC.

CARE

CARE's objective for this IR is by August 2001 was to have reduced by 15% the prevalence of diarrheal diseases in children less than 5 years of age in 14 rural communities in 5 municipalities of Alta and Baja Verapaz. To achieve this result, CARE is making available community water systems and latrines to 6,029 beneficiaries (1,176 families), and promoting adequate hygiene practices. CARE is constructing 12 water systems that will serve 14 communities, distributing 1,484 water receptacles for

household treatment and storage of water, and constructing 1,472 latrines. Cumulative progress to date is:

- Nine of twelve water systems that will serve 14 communities have been completed and inaugurated. The three systems still under construction are 80% complete.
- 1,484 water receptacles have been distributed – target met.
- Completed 1,472 latrines (100% of target).
- Sewer systems completed: CARE targeted gravel-filled sewer systems completed at the household level in 10 communities receiving water systems. Sewer systems have been constructed in 10 (989 households) communities. Target met.
- Hygiene practices education continues with the training of 79 community informants from the 14 target communities. Target met.
- Additionally Health Guardians, Midwives and School age children have been trained in diarrheal disease prevention.
- Women participation in project implementation and training has been encouraged and supported.
- Monitoring of water quality in coordination with CDC/Mertu was completed.

Note: During the quarter, CRS amended its cooperative agreement that included the return to USAID of \$45,015 from the IR3 element of the agreement. These funds were transferred to CARE to increase and amend its cooperative agreement under this element by the corresponding amount. CARE will use the \$45,015 to purchase chlorine stocks for use in potable systems constructed under the Mitch program. The stocks will be held in regional chlorine banks that CARE will be establishing during the final months of the Mitch reconstruction program.

CRS

CRS' objective for this IR was to reduce the incidence of diarrheal disease, especially in children under five years of age, by improving household water and sanitation conditions, and hygiene knowledge and practices. Expected results for the two year program were: (a) construct or rehabilitate 28 small community water systems; (b) construct/rehabilitate 110 wells; (c) construct 2,100 latrines; (d) distribute 6,600 water receptacles with chlorine disinfectant. CRS is working with three local counterparts, the Social Pastorate of Ixcán, the Social Pastorate of the Verapaces, and Caritas of Zacapa. CRS provided technical supervision and guidance to the counterparts in addition to the financial resources and materials to carry out the work. During the quarter, CRS amended its cooperative agreement that included the return to USAID of \$45,015 from this element of their cooperative agreement. The targets, however, were not reduced (see CARE section above for use of these returned funds).

Cumulative progress to date for CRS is:

- 28 new water systems under rehabilitation or construction, 31 complete (111% of target).
- 109 communal wells rehabilitated/constructed (99% of target).
- 7,139 5-gallon receptacles distributed and chlorine doses distributed in 60 communities (189% of target).
- 3,977 pit latrines and dry composting latrines installed (189% of target).

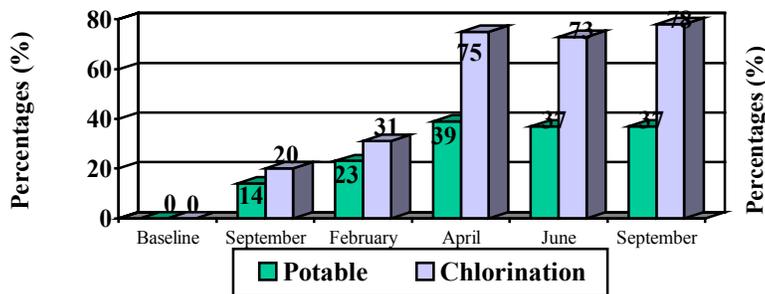
- 254 community facilitators identified of which 218 facilitators trained in hygiene education (97 % of target).
- In coordination with CDC health and hygiene practices monitoring and evaluation plans being followed up.
- Monitoring activities for water quality with CDC/MERTU were completed.

CDC

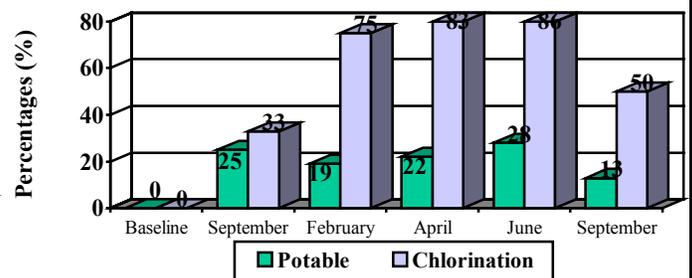
MERTU/G-CDC provided assistance to CARE and CRS to establish an evaluation and monitoring system focused on Hygiene practices, water quality and diarrheal disease. Including definition of indicators, training in data collection methods, preparation of water sampling plans and management of statistical programs.

Final rounds of sample collection and analysis from water sources and water receptacles were carried out in June and September, completing a total of six rounds of sampling over the life of the activity. CDC sampled a total of 266 CARE families and 605 CRS families. Results are shown in the graphs below. From the baseline in early 2000, followed by sample rounds in October 2000, and February, April, June and September 2001, a trend toward improved water potability and chlorine use is observed. CRS's samples improved from 14 percent potable in September 2000 to 37 percent in September 2001. Meanwhile, chlorine use in CRS households improved from 20 percent to 78 percent over the same period. (Potable refers to samples free of fecal coliforms at the rate of <1/100 ml of water, and a safe chlorine residual should be 0.5 to 1.0 ppm). CARE's results were similar, but with a drop off in potable safety in September 2001 due to heavy rainfall in their project area. CARE's potable measure went from 25 percent in September 2000 to 26 percent in June 2001 and then declined to 12 percent in September 2001. Meanwhile, CARE households improved on chlorine use from 33 percent in September 2000 to 86 percent in June 2001, and then declined to 50 percent in September 2001. Overall, the effects of training and the trend toward improvement in chlorine use and in potability over the relatively short life of the project is evident.

Results of Water Sample Monitoring - CRS



Results of Water Sample Monitoring - CARE



IR 3.3 Capacity to prevent and control infectious diseases enhanced

- MERTU/G-CDC assisted the Ministry of Health (MOH) with a plan for a “National Offensive for the Prevention and Control of Dengue.” The plan consisted of two major objectives to enhance preparedness for an epidemic. The first objective involved strengthening and decentralization of national laboratory capacity. The central laboratory was strengthened and two regional laboratories were established in high-risk areas. The CDC helped equip the two regional labs and provided training to 7 MOH technicians. The second objective was to enhance national capacity to promptly diagnose and effectively treat cases of dengue and hemorrhagic fever. To accomplish this 1,150 medical and auxiliary health personnel received training. Training was provided by CDC’s Dengue Branch in Puerto Rico. CDC also coordinated this activity with PAHO and other donor efforts to improve dengue preparedness.

Financial Summary

As of September 30, 2001, the Mission had sub-obligated 99% of funds under the three intermediate results; i.e., \$27.44 million committed with implementing agencies (see table next page). Accrued expenditures for the quarter for all three IRs reached 95% i.e., \$26.5 million (see graph). The Mission's accumulative expenditure target for all three IRs for the quarter was 95% or \$26.5 million.

When considering only CACEDRF funds for IR1 and IR2, the total sub-obligation percentage is also 98%. The accrued expenditures for these two IRs are \$23.6 million, or 94.4 %, against the quarter's expenditure target of \$25.0 million, or 100%. IR1 its targets, while IR2 was slightly behind schedule, but will meet expenditure targets during the final quarter.

**Hurricane Reconstruction
Accrued Expenditures CACEDRF & CS Funding (Cumulative)
USAID/Guatemala**

