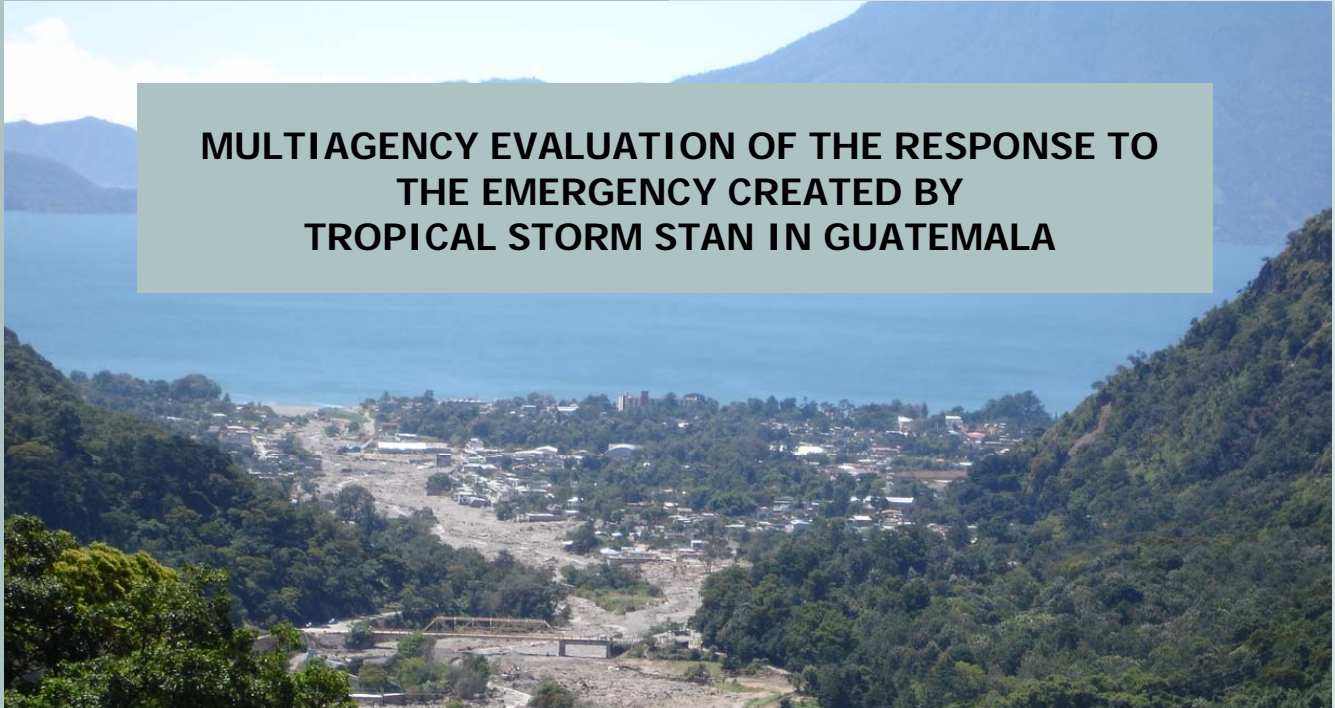


MULTIAGENCY EVALUATION OF THE RESPONSE TO THE EMERGENCY CREATED BY TROPICAL STORM STAN IN GUATEMALA



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Summary

In October 2005, Tropical Storm Stan struck Guatemala, causing severe landslides, mudslides and flooding and affecting nearly a half million people in over 1000 communities. Large areas of crops were destroyed, along with bridges and highways, complicating the delivery of humanitarian aid.

This document is an evaluation of the activities carried out by [CARE](#), [CRS](#) and [Oxfam GB](#) between October 2005 and February 2006 in response to this emergency, and of the level of coordination between those agencies and other actors within the framework of the [ECB Project](#). The evaluation was carried out during March-April 2006 by external evaluators.

This 3-page summary brings together key points from the evaluation of those activities and their impact, and summarizes the recommendations of the evaluation team. Readers of the electronic version of this document may follow [hyperlinks](#) to the relevant sections of the main report.

CARE, CRS and Oxfam GB: Response and Impact

- [Health](#) education was a key focus of agency health response, and resulted in use of sound health practices and recognition by families of common disease symptoms. Training local health promoters strengthened local capacity for continuing health education.
- [Social and psychological](#) assistance was provided, with two agencies providing mental health care, an important component of disaster response. Though a slow process, this care was well received.
- Safe [water](#) was initially provided by bottled water and tanks, and subsequently by rehabilitating wells and distribution systems. There were no reported outbreaks of waterborne disease.
- Pit [latrines](#) were built by all 3 agencies, despite risks of pollution. All are in the process of constructing composting alternatives. Cleaning and sanitary education reduced disease transmission risk.
- Water and sanitation activities complied with Sphere minimum standards, but technical supervision of water system rehabilitation was not always adequate.
- [Food aid](#) provided complemented that distributed by other institutions, and met needs in the first days of the emergency.
- [Nutritional](#) training and training in food hygiene and preparation were professionally supervised. Fresh products included in rations improved nutrition and acceptability. However, only one agency assessed the nutritional status of children under 5 and followed up cases of malnourished children.
- Oxfam GB supported family gardens and small-scale farmers, improving diets and [food security](#) and generating income.
- CRS provided plans and materials for [shelters](#) meeting Sphere standards and appropriate for low temperatures encountered at high altitudes.
- All agencies distributed blankets in cold areas or sheets in coastal areas. Clothing distribution also took place, though this was complicated in some areas by traditional clothing preferences.
- All agencies had previous [experience](#) of affected areas and were familiar with their geography, culture and government. All had teams in the field at the onset: these teams provided the initial response. These conditions enabled agencies to respond quickly and mostly in effective ways.
- CARE and CRS used modified versions of CONRED's Damage Evaluation and Needs Analysis (EDAN) [assessment](#) tool: Oxfam GB used its own tool.
- [Projects](#) were developed in central offices in Guatemala City: CARE and Oxfam GB used external support. Projects were based on information from local teams following community consultation.
- Few in-country staff had received disaster response [training](#) before the onset of the emergency. CARE was in the process of reviewing its contingency plan: existing emergency preparedness plans at CRS and Oxfam GB were not implemented.
- [Administrative](#) and logistical procedures were slow and inflexible, with no special emergency procedures delays in the delivery of emergency aid were encountered.
- Emergency [funds](#) were available: in the case of CARE and CRS these were insufficient.
- No agency deployed radio [communications](#), and the failure of the cell phone network left them dependent on radios owned by private individuals or businesses.
- [Information](#) flows concerning the numbers and needs of the affected population and the responses of other agencies were insufficient, hampering planning and coordination.

- Agency responses alleviated suffering and assisted local communities who as in most emergencies were the quickest responders to mobilize aid and rescue.

CARE, CRS and Oxfam GB: Recommendations

1. Establish subject matter, work methods and health education techniques during normal times. Review methods so that positive elements can be included in models and practice.
2. Include **mental health activities** in all emergency response and rehabilitation projects.
3. Include **productive manual activities** for all population groups (including adult males) in emergency response, rehabilitation and reconstruction projects both for productive and mental health purposes.
4. Include **mitigation** measures in the rehabilitation of water distribution systems. Develop a database of specialists with experience in this area to work with local groups and ensure positive results.
5. **Monitor** the number of people supplied with water from the critical stage onwards to comply with minimum Sphere Project standards.
6. Strengthen and train **water committees** during all water training activities and other development projects. Review subject matter and methods in order to make corrections and keep training material updated.
7. Replace pit **latrines** with composting latrines in the reconstruction stage in order to reduce the risk of pollution of water tables.
8. Provide **food aid** in accordance with Sphere Project standards and conduct nutritional studies of children under five years of age and pregnant women in order to prevent malnutrition.
9. Search for ways that **productive projects** can benefit all affected populations, but especially those in the high plains area as they have fewer resources and are more likely to suffer from malnutrition.
10. The **shelter** proposed by CRS complies with Sphere Project standards for 5-member families. Corresponding modifications should be made when there are larger families.
11. Comply with Sphere Project standards regarding the number of **protective items**, especially when the shelters are located in areas with low temperatures.
12. Establish **kits** for the distribution of hygiene, cooking and other items to facilitate delivery organization and control.

Agency and ECB Coordination: Response and Impact

- Despite the fact that only 3 meetings had been held prior to the emergency, the ECB working group in Guatemala played an important role as a [focal point](#), compiling information from NGO field operations and feeding it into the national system of emergency coordination under CONRED. This work helped to strengthen relations between ECB agencies.
- There were expectations that synthesized information would flow back to the agencies and the field through this same structure. In this event, such information flow was [delayed or non-existent](#).
- The ECB working group played no role in coordination within [affected areas](#), as agency field teams were not aware of the ECB Project. Local coordination and cooperation was however widespread, but depended on preexisting relationships between technical personnel in the field. It showed that coordinated and organized activities can lead to a better response.
- The short period of existence of the ECB working group in Guatemala meant that the [roles](#) of participating agencies in an emergency situation were not well defined or understood, either by the agencies themselves or by other actors such as CONRED.
- [Communication](#) between headquarters and country directors concerning the ECB Project and the responsibilities of working group members was lacking.
- There was a high [turnover](#) of agency representatives on the ECB working group, leading to a lack of continuity and an erosion of knowledge.
- [Attendance](#) at working group meetings was patchy. Reasons for absence included workload and excessive meeting frequency, without clear agendas circulated beforehand.

Agency and ECB Coordination: Recommendations

1. Organize a **workshop** for directors, the ECB Guatemala manager, Agency Representatives, agency strategic teams, 1 or 2 general managers and ECB project advisors to jointly:
 - Establish field and management work strategies;
 - Establish responsibilities and tasks for directors, Agency Representatives and field teams;
 - Define priority issues to address jointly
 - Clarify doubts regarding the project and define common objectives as agencies that are either members of a consortium or a network.
2. Include tasks that Agency Representatives are responsible for as ECB Working Group members in **job descriptions**.
3. Establish a **profile** of desired characteristics for Agency Representatives. Ask directors to give Agency Representatives sufficient time and support so that they can fulfil their ECB responsibilities.
4. All agencies should participate in assisting with ECB project work, the development of a logical framework for the Guatemalan project and developing descriptions for methodologies to be used for each programmed activity.
5. Form **workgroups** for ECB project activities, taking into account agency strengths and delegating responsibilities for the implementation for activities.
6. **Monitor** activities internally on a monthly or bimonthly basis in accordance with the logical framework. Share results with agency directors.
7. Schedule **visits** for ECB project advisors and managers so they can provide support.
8. Share internal agency **processes** regarding logistics, training and response protocols, with the goal of identifying best practices that could streamline agency processes.
9. Reach **agreements** regarding the actions that each agency will take before and during emergencies, where they are going to intervene during the critical stage of emergencies and what and where actions will be taken during the rehabilitation and reconstruction stages.
10. **Standardize** the following for all agencies:
 - Items used by personnel participating in emergency responses;
 - Kits to be delivered to communities during the critical stage (personal and family hygiene, water and sanitation, first-aid and other kits);
 - Food rations consisting of food that is culturally accepted according to area of the country;
 - Shelter standards.
11. Standardize agency **procedures** and instruments regarding contingency plans, the EDAN form, risk management training, situation rooms and shelter construction and management.
12. Prepare **background information** on different areas of Guatemala (high plains, coast, etc.) to be used during the critical stage of the emergency response. The background information should include traditional clothing, hygiene, risk factors present in communities and population vulnerability. Community risk maps should be developed and geographical maps should be available.
13. **Train** agency personnel on risk management, response management and the implementation of contingency plans. Prepare field personnel for emergency program management.
14. Implement **joint projects** and/or activities during normal periods in order to improve relationships between agency personnel and develop inter-agency bonds.
15. Build **coordination** between personnel at all levels (country office level, operations teams, agency international personnel).
16. Support and train **municipalities** in risk management, emergency care and the generation of updated community information.
17. Work with municipalities and communities to **prepare** for emergencies, promote the construction of housing in less vulnerable areas and establish work strategies with women.
18. Promote the timely, appropriate and dependable generation, administration, dissemination and use of **information** for improved decision-making during emergency responses.

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ACRONYMS

ACSS	Community Health Services Coordinating Association
CARE	Cooperative Assistance and Relief Everywhere
CDC	Centers for Disease Control and Prevention
COCIGER	Citizen Coalition for Risk Management – NGO network
COCODE	Community Development Committee
CODECA	Farmers Development Committee
COMUDE	Municipal Development Committee
CONIC	National Indigenous and Farmer Coordinating Committee
CONRED	National Disaster Reduction Coordinating Committee
CRS	Catholic Relief Services
ECB	Emergency Capacity Building Project
FAO	Food and Agriculture Organization of the United Nations
MAGA	Ministry of Agriculture
OFDA	Office of Foreign Disaster Assistance (USAID)
Oxfam GB	Oxfam Great Britain
PHAST	Participatory Hygiene and Sanitation Transformation
WFP	World Food Program
UNDP	United Nations Development Program
SC-US	Save the Children USA
SE-CONRED	CONRED Executive Secretariat
SOSEP	First Lady's Office for Social Work
SEGEPLAN	General Secretary of Planning and Programming
OCAH	United Nations Office for the Coordination of Humanitarian Affairs
USAID	United States Agency for International Development
UNICEF	United Nations International Children's Emergency Fund
WV	World Vision

GLOSSARY

ECB Working Group	Group established by the ECB participant agencies in Guatemala to coordinate ECB activities and initiatives.
Agency Representative	Representative from an individual agency to the ECB Working Group.

1. INTRODUCTION

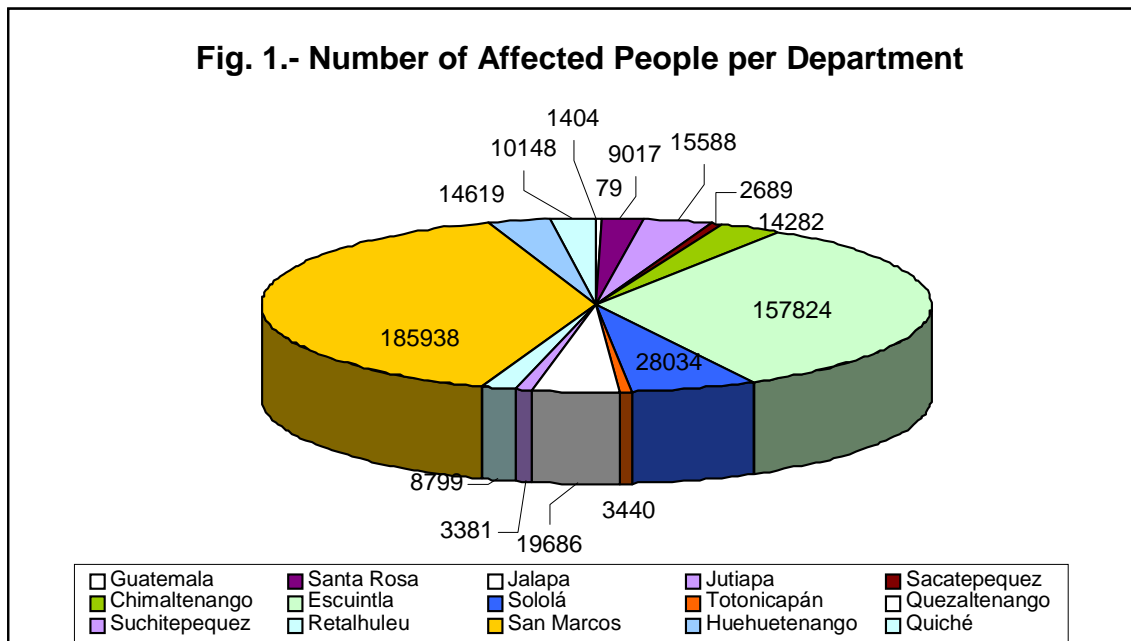
1.1 Background

The 2005 rainy season in Guatemala was characterized by much more rainfall than the annual average. Stan was storm number 18 of the hurricane season. On September 28, the National Institute of Seismology, Vulcanology, Meteorology and Hydrology (INSIVUMEH) and the National Disaster Reduction Coordinating Committee (CONRED) began to issue alerts regarding flooding threats, possible damage to diverse areas of the country and the potential for rivers to overflow their banks.

The torrential rains caused mudslides, landslides and flooding. Affects on some communities started on the October 3, but the majority were affected as of October 5. On October 6, CONRED declared a state of emergency. The Guatemalan Government officially recognized this on October 7. On October 8 the government began to request emergency response assistance from the international community.

The majority of affected communities were located in areas of high geographic vulnerability, situated on hillsides or near the edges of rivers. In addition, the affected areas are very poor. The Pacific Coast and the Southwest were the most affected regions, especially the departments of Jutiapa, Jalapa, Santa Rosa, Escuintla, Retalhuleu, Suchitepéquez and San Marcos. The Central region and the High Plains region of Huehuetenango, Quiché, Quetzaltenango and Sololá were also affected.

15 of the 22 Guatemalan departments were affected and within those departments 133 municipalities and 1,158 communities¹. According to CEPAL, the department with the most affected people was San Marcos with 185,938, followed by Escuintla with 157,824, Sololá with 28,034, Quetzaltenango with 19,686, Jutiapa with 15,588, Huehuetenango with 14,619, Chimaltenango with 14,282, Quiché with 10,148, Santa Rosa with 9,017 and Retalhuleu with 8,799. The total number of affected people in the country was 474,928 (see figure 1).



¹ CEPAL- Effects of the torrential rains and Tropical Storm Stan, October 2005.

The damage to housing was vast. The department that suffered the heaviest damage to housing was San Marcos, followed by Sololá, Quiché, Sacatepéquez and Escuintla. It is important to emphasize that the department of San Marcos is characterized by very low temperatures, strong winds and many communities are located more than 3,000 meters above sea level. In these areas, people in shelters had to deal with tough climatic conditions.

Tropical Storm Stan caused generalized losses in crops and stored products as well as destruction to transportation and communications infrastructure. Crop loss was particularly devastating as the storm struck when the first corn and bean harvests were beginning. Corn and beans are subsistence crops and their loss represented a food security crisis for rural families in the departments of San Marcos and Sololá.

Many communities and municipal capitals were cut off. Telephones, including cellular phones, weren't working, there was no electricity, and highways and bridges were destroyed. The first requests for assistance were made by radios owned by some individuals and businesses. All of the agencies and institutions that intervened in the response were faced with communication problems.

During the early days of the emergency, the priority was to provide food, water and shelter, especially in Sololá and San Marcos where the temperatures drop very low. The scarcity of locally available food for sale in the disaster area, the lack of available funds for local teams, the inaccessibility of the majority of affected areas by land and the poor weather conditions that hindered air relief all added to the difficulty of providing aid. Once access was opened to populated areas the delivery of aid was more fluid.

The water distribution systems and wells that were damaged by mudslides and flooding left many populations without potable water. Many latrines were destroyed or flooded and temporary pit latrines were constructed in their place. Agencies plan to replace these latrines with composting latrines to avoid polluting the water table.

The main health problems suffered by the local populations were skin fungi as well as respiratory and diarrheal diseases. Medical brigades provided great health care to many communities, adequately tending to the health problems of affected individuals.

The loss of human life, housing, crops and other means of livelihood, as well as the traumatic experience itself, had a serious impact on the mental health of the population. Schoolteachers reported that children were nervous and, when it rained lightly, would cry and ask for their parents. Mothers who were worried about the uncertain future also presented mental health problems.

Many countries responded to the call for humanitarian aid and both financial and in-kind donations were made. The United Nations System mobilized USD\$29,412,810 through their agencies and CONRED directly received a total of 12,550,418.85 Quetzals (USD\$1,651,370). In-kind aid consisted mainly of food, medicine, medical equipment, diapers, clothes, shoes, blankets tents, mats, water purification tablets, water treatment plants, hygiene kits, kitchen kits, vehicles and helicopters².

Other governments sent personnel to assist in the disaster response, including disaster experts, transportation experts and many doctors (600 from Cuba, 12 from Mexico, 7 from Spain and 7 from Canada³). All of the doctors arrived with medical equipment, provisions and supplies for diagnosis, minor surgery and treatment in rainy conditions and without electricity. The Ministry of Health assigned doctors to specific affected areas.

CONRED invested the majority of funds in materials for shelter construction, water purification tablets and food. The United Nations allocated 34% to food and nutritional security, 15% to housing construction and 14% to water and sanitation.

² Support from international cooperation agencies during the Tropical Storm Stan emergency. First Quarterly and Accountability Report, January 11, 2006. CONRED.

³ CEPAL- Effects of torrential rains and Tropical Storm Stan on Guatemala, October 2005

WFP appealed to the international community for USD\$14.1 million to assist the Guatemalan population for six months. They managed to raise USD\$6.7 million and are distributing 24,273 metric tons of food to 285,000 people in 10 departments during a preliminary phase and to 180,000 people during a second phase.

1.2 CARE, Catholic Relief Services and Oxfam Program Coverage

CARE

CARE's criteria for deciding the affected areas in which to intervene were: areas in which CARE was previously implementing projects; areas surrounding this intervention zone; and areas where no other agency was implementing projects.

In the Tacaná municipality in San Marcos, CARE originally provided aid to 35 communities. When other institutions began to arrive the humanitarian aid response was reorganized and CARE continued to provide support to 21 communities. CARE also provided aid to 16 communities in Tejutla, 23 communities in Sibinal, 22 communities in Tajumulco and 1 community in Momostenango, providing coverage for a total of 3,129 families (18,774 individuals). In the department of Sololá, CARE provided support to 47 communities in Santa Catarina Ixtahuacán, 1 community in San Marcos la Laguna, 2 communities in Santa Cruz la Laguna and 2 communities in Panajachel, providing coverage for a total of 3,380 families, representing approximately 20,280 people in Sololá.

At the same time, CARE facilitated the establishment and organization of shelters in many municipalities and communities where they provided food, water, clothing, medicine, medical care and blankets. CARE Guatemala collaborated in the organization of 18 municipal shelters and 366 community shelters where a total of 12, 476 people were sheltered.

CRS

During the critical stage of the emergency, CRS responded to the request for assistance of their counterparts and provided support in the departments of Chimaltenango, Escuintla, Retalhuleu, San Marcos, Santa Rosa, Sololá, Suchitepéquez, Quetzaltenango and Tecún Umán.

CRS is caring for 6 communities in the department of Retalhuleu, 11 communities in the department of Santa Rosa, 35 communities in the department of San Marcos. In the department of San Marcos, 1000 single-family shelters were built, where families were provided with clothing, bedding, beds, water, latrines, personal hygiene items, food and health education. CRS provided coverage for 2,250 families representing approximately 11,250 individuals in San Marcos and for 1,800 families representing approximately 9,000 individuals on the Southern Coast, for a total coverage of 20,250 people.

Oxfam GB

The criteria taken into account when deciding in which affected areas to intervene were: level of impact and vulnerability and prior presence when defining intervention areas with other Oxfam organizations. Oxfam GB provided coverage along the Southern Coast and in Sololá while Intermón Oxfam provided coverage in San Marcos.

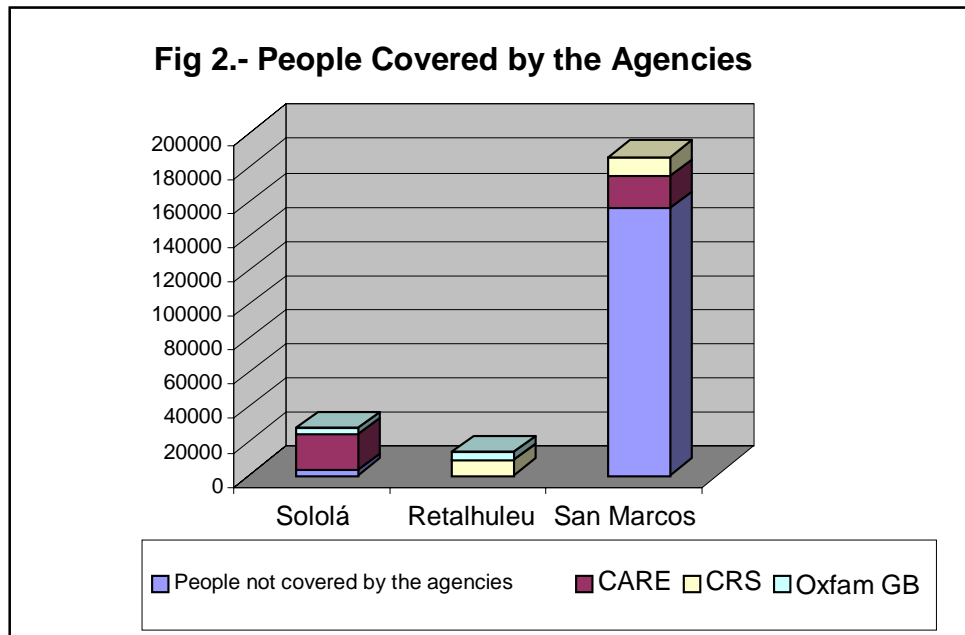
In Sololá, Oxfam GB delivered food to 815 families (approximately 4,075 individuals) and supported family gardens for 51 families (approximately 260 individuals).

Oxfam GB also provided water to 14,421 beneficiaries (up until February 10) and expects that number to reach 37,051 people (5,966 families) in the department of Sololá. In addition, Oxfam GB provided sanitation aid in Santiago Atitlán that benefited 210 families, representing approximately 1,200 people, during the critical stage of the disaster and, subsequently, to 1,019 people in shelters. The provision of

huipils (traditional blouses) benefited 1270 women. A total of 37,051 people were benefited in the department of Sololá.

Through its counterpart CODECA, Oxfam GB delivered food to 703 families from 7 communities in the department of Suchitepéquez and 3 communities in the department of Retalhuleu. Through its counterpart CONIC, Oxfam GB delivered provisions to 307 families from 4 communities in the department of Retalhuleu. A total of 1,010 families representing approximately 5,050 people were benefited.

In addition, Oxfam GB's agricultural recovery projects benefited 907 families in the department of Retalhuleu.



1.3 Evaluation Methods

The evaluation was conducted by an evaluation team made up of four people and had the following objectives:

- To assess CRS, CARE and Oxfam GB's response to the emergency situation caused by Tropical Storm Stan in 2005 in Guatemala.
- To assess agency and ECB⁴ coordination.
- To evaluate the impact of activities carried out by CRS, CARE and Oxfam GB.

The evaluation covers the period from when the emergency began, on October 5 2005, to February 20 2006. The methods used by the evaluators are described below.

A. Document review of the ECB Working Group and the CRS, CARE and Oxfam GB emergency response

Documents provided by the agencies were reviewed. This included project information, implementation plans, logical frameworks, follow-up reports, report support documents, drafts of final reports for completed projects and other documents that helped to provide a full understanding of the emergency response activities implemented by the agencies. Some of the documents were provided at the beginning of the consultancy and some during the last weeks of the evaluation.

Access was given to three of the seven projects that are being implemented by CARE (financed by the Ministry of Foreign Affairs of the Netherlands, IADB, DFID-UK, the Government of Norway, the Government of Guatemala, PSO – the Netherlands, CARE USA). Work plans were not provided.

A consolidated report (draft) of all activities carried out by CARE during this time period was provided, along with SITREPs, bulletins, their contingency plan, organizational charts, community agreements, CARE protocols and policies and food distribution charts.

CRS provided a Power Point presentation summarizing their projects, a project monitoring plan (San Marcos), information regarding their Southern Coast project, SITREPs, shelter and other manuals, educational materials and emergency organization information.

Oxfam GB provided a logical framework and draft report, draft project report, a timeline for a different project and a project summary report. Missing was information on productive projects and the respective progress reports. Other documents provided include their contingency plan, needs assessment reports and partial project reports.

Agency documentation was reviewed to identify proposed activities and activities that had been implemented up until the date the evaluation began (February 20, 2006).

B. Interviews with key personnel that participated in the emergency response.

Interviews were conducted with key personnel from different organizational levels. At country office level, personnel interviewed included agency directors, coordinators, Agency Representatives and support personnel. At the operations level, interviews were conducted with area coordinators, personnel implementing activities in the area and counterpart institutions. Personnel from other institutions that coordinated with the agencies were also interviewed.

⁴ The Emergency Capacity Building (ECB) Project is a collaborative effort of the seven agencies of the Inter-agency Working Group on Emergency Capacity: CARE International, Catholic Relief Services, the International Rescue Committee, Mercy Corps, Oxfam GB, Save the Children US, and World Vision International. Over a two-year period from March 2005, these agencies and their partners are jointly addressing issues of staff capacity, accountability and impact measurement, risk reduction and the use of information and communication technologies (ICTs) in emergencies, with the objective of improving the speed, quality and effectiveness of emergency response. For further information, please visit www.ecbproject.org

Group interviews were conducted in the capital with country office teams: 8 people from CARE, 3 people from CRS and 2 people from Oxfam GB. Group interviews were also conducted with operations teams: 5 people from Oxfam GB in Panajachel-Sololá, 6 people from Oxfam GB's counterparts in Panabaj-Sololá, 6 people from the Community Health Services Coordinating Association (ACCSS) in Champerico in Retalhuleu and 4 people from CODECA in Rancho Alegre, also in the department of Retalhuleu.

8 people participated in the interview with CARE's operations team in San Marcos and 7 people participated in the interview with CARE's operations team in Sololá. The coordinator for this area was also interviewed.

12 people participated in the group interview of Caritas, CRS's counterpart, in San Marcos and 3 people participated in the group interview of Caritas in Retalhuleu. A personal interview was also held with a priest who coordinated the emergency response.

Individual interviews, both face-to-face and via telephone, were also conducted with international personnel that supported CARE and Oxfam GB during the emergency.

These interviews aided in the investigation of the emergency response of each agency, allowing response difficulties and achievements to be identified.

Among personnel from other institutions that were interviewed due to their involvement in the response were the UNDP information manager and representative, the Sololá Coordinator of the Joint United Nations Post-Stan Program, CONRED officials and the Doctors of the World Coordinator.

C. Interviews with personnel related to the ECB Working Group.

Interviews were conducted with the ECB Disaster Risk Reduction Initiative Guatemala Manager, representatives from ECB agencies and international advisors.

Group interviews were conducted with country office teams in Guatemala City: 3 people participated in interviews from WV agencies, 6 people participated in interviews from SC/US and 3 people participated in interviews from Mercy Corps. An individual interview was also conducted with the Mercy Corps Director.

Questions related to ECB coordination were included in the group interviews held with country office and operations teams from CRS, CARE and Oxfam GB.

The interviewees were asked about emergency response coordination and their perception of the work of the ECB project.

D. Visits to the communities where the agencies carried out the emergency response

The sites chosen to visit were where two or more agencies were implementing emergency response activities in a municipality. Communities visited were suggested by the agencies.

One of the purposes of these visits was to determine the level of coordination between agencies at the municipal level.

Municipal and community leaders were interviewed in order to learn about agency involvement in the activities implemented in the municipalities and the humanitarian aid that they provided.

Local agency personnel assisted in setting up appointments with the municipal and community leaders. The majority of the mayors were not present in the municipalities for the appointments and delegated one or more members of the municipal councils to participate in the interview.

Mayors from the municipalities of Santa Catarina, Ixtahuacán and San Juan La Laguna were interviewed in the department of Sololá and deputy mayors were interviewed in Santiago Atitlán, Nahualá and Santa Cruz La Laguna. A group interview was conducted with the COCODE in the Pajá community in Nahualá with 6 participants and an individual interview was conducted with the President of the Tzununá COCODE.

In the department of San Marcos, interviews were held with the Mayor and Deputy Mayor of Tejutla, two councilors from the Tajumulco municipality and the President of the San Isidro COCODE. 8 people including the Deputy Mayor were interviewed from the Boxoncán COCODE and 3 people including the Deputy Mayor were interviewed from the Bexoncán COCODE.

Focus groups were also conducted with beneficiaries of the emergency response in order to learn about their perception of the aid they received from the agencies and if the aid they received was sufficient to satisfy their needs during the emergency. Agency personnel organized the community focus groups.

Three focus groups were held in the department of Sololá, one in the municipality of San Marcos La Laguna with the participation of 15 women and one man who served as a translator, one in the Pacorral II community with 10 adult male participants and one in Xoljá with 8 adult male participants.

Field observations were made during the visits to local communities to determine the hygienic state of the shelters, latrines and services. Random individual interviews and home visits were also made.

In the department of Sololá, visits were made to the Pacorral II, Xoljá, Pajá and Panabaj communities. Two random single-family shelters were visited in each of the communities with the consent of their inhabitants.

Water intake systems were inspected in the Tzancotón, Xabaj 1 and Xabaj 2 communities.

Non-formal interviews were conducted with 2 people living in the Panabaj shelter, 1 in Xoljá, 1 in Pacorral II and 2 people living in the San Juan La Laguna shelter.

During the non-formal interviews, people were asked about what they thought would have happened if they hadn't received aid and their future plans.

In the department of San Marcos, single-family shelters were visited in Bexoncán (1) and Boxoncán (2). Non-formal, individual interviews were conducted with one person in Bexoncán and 2 people in Boxoncán.

Rehabilitated water distribution systems were visited in Bexoncán and Boxoncán.

One focus group was conducted in Cuchupán, located in the department of Retalhuleu. 32 people participated in the focus group, including 11 women.

An informal conversation was held in the Rancho Alegre community with a large group of women (approximately 50 that were participating in another activity). Non-formal, individual interviews were conducted with five women and home visits were made to two beneficiaries.

One individual interview and 3 home visits were made in the Las Cruces community. A visit was also made to the wells that are being rehabilitated.

E. Analysis and reports

The activities implemented and coverage sections of this report were based on the documents provided by the agencies. It should be noted that many of the projects were being implemented when the evaluation took place. Field visits provided a good panorama of intervention quality.

The interventions implemented were analyzed to see if they met the following minimum Sphere Project indicators:

- Water and sanitation. 15 liters of water per person per day. 250 people per water faucet, bacteriological analysis indicating an absence of coliforms, 0.5mg residual chlorine per liter, a turbidity of less than 5 NTU, protected water sources, 20-liter water tanks with covers, at least 250 grams of soap per month per person, appropriate toilet installations (centrally located, separate toilets for men and women, privacy), a washbasin for 100 people. 1 latrine per 20 people or per 4 to 5 families, located no more than 50 meters from the living quarters and at least 30 meters from surface water sources, in good hygienic

conditions and with designs accepted by families. Distribute hygienic messages and conduct activities to promote good hygiene and organize users for maintenance issues.

- Food aid. 2,100 calories per person per day except when there are other sources of food, acceptance and familiarity with the foods provided, distribution to beneficiaries. For food security: primary production, seed distribution, tools and fertilizer.
- Health. Community education messages regarding the prevention of transmissible diseases, diagnosis and treatment of common diseases. Mental Health. Social and psychological interventions.
- Shelters. 3.5 m² of space per person. Adequate design for climatic conditions.
- Non-food items. Clothes, bedding, personal hygiene items and kitchen utensils.

The interviews held with agency country office and operations teams focused on the following points: response speed, the influence of prior agency presence in affected areas on the response, assessments of damage, human resources (number and their disaster preparedness), response of the organization and the influence of administrative, logistical and communication systems on the response.

Impact determination was based on the beneficiaries' perception of aid received and the sustainability potential of implemented activities.

During the interviews, special emphasis was placed on ECB agency coordination during the emergency response. In addition, and in response to a suggestion made by international ECB project advisors, the agencies were asked for their perceptions and suggestions of ECB coordination efforts. These results are included in the recommendations section.

Each of the consultants prepared reports corresponding to their areas of expertise. During the first two weeks, a water and sanitation specialist participated in the evaluation. The Team Leader took charge of that area of the evaluation during subsequent weeks.

The Team Leader was in charge of preparing the final report. A draft of the report was first prepared and commented on by phone by the ECB Disaster Risk Reduction Initiative Manager, ECB Accountability and Impact Measurement Manager and ECB advisors.

The main findings of the evaluation were presented during a joint meeting to the country directors of the agencies involved plus the ECB Project Manager for Guatemala and management as well as agency coordinators, Agency Representatives and support personnel.

Another draft of the final report was prepared that incorporated the suggestions provided by phone and during the presentation of the findings

Section 2 of this document presents an evaluation of the responses of CRS, CARE and Oxfam to the emergency. Section 3 evaluates the coordination between agencies and within the ECB Working Group. Section 4 lays out the key lessons learned, and Section 5 presents a summary of conclusions. Section 6 lists the recommendations of the evaluation team. Some of main findings are in italics.

Where recommendations are put forward elsewhere in the text, they are highlighted in this way for easy reference.

2. THE CRS, CARE AND OXFAM GB EMERGENCY RESPONSE

2.1 Health, water and sanitation, food security and aid

a .- Health

CRS

Medication kits containing mainly antibiotic, antifungal and antipyretic medications were provided in Chimaltenango, Escuintla, Retalhuleu, Santa Rosa, Suchitepéquez and Quetzaltenango. Affected populations were provided with health education that was accompanied by water and sanitation activities. Posters regarding personal hygiene, latrine and dry well use, proper hand washing and chlorine use for safe water were printed and hung, especially in shelters.

Social and psychological support was provided to individuals and families. Psychotherapeutic techniques were used to assist families and collective techniques were used to assist communities including the provision of support for community mourning, community festivities, community development activities and expressive activities.

Health education activities are being implemented in the Tacaná, Tajumulco, Ixchiguán and Sibinal municipalities and Ocos and Ayutla areas in the department of San Marcos. A health education curriculum has been designed for local communities with modules that are used by facilitators.

Health education content used in the modules is appropriate and the posters mainly use pictures to reinforce messages stressed during educational activities.

A diversification of pictures used is recommended so that the clothing used by men and women in the pictures is representative of that used in the area where the posters are hung.

In the hand-washing poster only hands are shown.

The evaluation team recommends that the posters contain images of people washing their hands.

The main health problems during the emergency were skin fungus, respiratory diseases and diarrheal diseases. The medications supplied were adequate.

The social and mental health interventions such as mourning, community festivities and family/group psychological assistance are a great help to the recuperation of family and community life. However, this is a slow process and requires continued support.

CARE

In the Tajumulco and Sibinal municipalities in the department of San Marcos, CARE provided paramedic personnel and essential medications to health centers. Mercy Corps contributed medications and a brigade of three doctors for 25 days.

In the San Marcos La Laguna municipality in the department of Sololá, CARE implemented health education activities on issues such as the prevention of diarrhea, dehydration, rotavirus and malnutrition. The ERCA adult education methodology was used. Metal sheets from the Ministry of Health's AIEPI AINM-C program were provided and medical visits were organized to provide care for special cases. Medical care was provided in the Panajachel shelter and medications for people in the shelters were provided to the Las manos Foundation. CARE provided medical care in the Santa Catarina Ixtahuacán shelters where they installed a medical clinic and personnel provided home visit follow-up. The main diseases affecting the population were acute respiratory and diarrheal diseases. One case of hepatitis (of

unknown type) was identified and follow-up is being provided. Vitamin A pills and antibiotic, antifungal and antipyretic medications are available in the clinic.

CARE provided social and psychological care in the Tacaná, Tajumulco, Tejutla and Sibinal municipalities in the department of San Marcos and in the Panajachel, San Marcos La Laguna, Santa Catarina Ixtahuacán and Santiago Atitlán municipalities in the department of Sololá. These activities were implemented separately for women, men, youths and children. In the municipality of San Marcos La Laguna, CARE coordinated with Doctors of the World to implement this activity. In the municipality of Santa Catarina Ixtahuacán, social and psychological aid for boys and girls was complemented by the delivery of personal care items to improve their self-esteem. Groups of young women were organized and trained on manual productive activities. Athletic activities were organized for youths of both sexes. In addition, schoolteachers were trained on how to provide psychosocial support to children.

Psychosocial assistance activities included: expression of fears and “destiny” tambourines (1-6 years); fear into self-help and “destiny” tambourines (7-12 years); and “destiny monsters” with self-help groups (13-18 years).

Due to its remote location and lack of public transport, the provision of medical care in the Santa Catarina Ixtahuacán shelters is very important and was appreciated by those residing there.

Health education activities not only emphasized the importance of good nutrition and disease prevention but also taught people how to identify dehydration and malnutrition warning signs, especially in children, and to seek medical assistance when the warning signs presented themselves.

Mental health activities combined with social activities such as sports events and manual productive activities are helping the population to recover their lives. Collaborative work with Doctors of the World has led to progress being made in the population’s mental health.

This is a process that should continue to receive support.

Oxfam GB

Through its counterpart, CONIC, Oxfam GB has 13 hygiene promoters that were trained in the use of the PHAST methodology. These promoters are in charge of making home visits to monitor the hygiene of families living in shelters in Panabaj and Santa Catarina Ixtahuacán as well as providing health education to families. 6 health promoters provide coverage to 50 families each in Santiago Atitlán and 7 health promoters provide coverage to 20 families each in Santa Catarina Ixtahuacán.

40 people from the Panabaj shelter have been selected to be responsible for each of the 40 latrines, taking charge of their cleaning and making sure that there are brushes and soap to clean the latrines and soap for the sinks.

In the coastal region of the departments of Suchitepéquez and Retalhuleu, Oxfam GB is implementing a community health project. 16 health promoters (from CODECA, ACCSS and MADRE TIERRA) have been trained in the PHAST methodology. The promoters will use this methodology in the health trainings that they will conduct in 14 communities. They have already begun trainings with women in the Rancho Alegre community.

Diverse activities have been carried out with children such as safe water, health and hygiene workshops in Santiago Atitlán and garbage collection and health calendar development in Santa Catarina Ixtahuacán. In addition, oral health visits were made to the Panabaj, Alfa and Omega shelters.

Different materials were developed for children including posters illustrating types of garbage, coloring posters on proper hygiene and a coloring book on proper hygiene based on a Peace Corps model. Evaluators did not have access to these materials.

These activities are also thought to have had psychological benefits for the children.

The PHAST methodology, in which the health promoters have been trained, is very dynamic and useful. It has already been used successfully in coastal areas for training a group of women.

The evaluators recommend that this positive experience with PHAST be replicated with promoters in Santiago, Atitlán and Santa Catarina Ixtahuacán.

The frequency of home visits have enabled promoters to develop good relationships with people living in the shelters and have enabled them to provide follow-up to identified health and hygiene problems.

The evaluators recommend that a mental health component be incorporated into future projects.

b .- Water and sanitation

CRS

During the critical stage of the emergency, CRS delivered water and sanitation packages in the departments of Chimaltenango, Escuintla, Retalhuleu, Santa Rosa, Sololá and Suchitepéquez, in accordance with community needs. Four types of packages were delivered:

Package A contained two 4hp pumps (2"), 100 pounds of calcium hypochlorite, 15 meters of 2" tubing, 50 gallons of gasoline, 1 5-gallon gasoline container and 2 residual chlorine detectors. **Package B** contained ten 1,200-liter water tanks and accessories, 25 latrines, 500 safe water kits (one 5-gallon container, 1 liter of chlorine and one 30ml dropper), 10 solid waste receptacles (100 liters) and 25 bags of lime. **Package C** contained 10 latrines, 250 safe water kits one 5-gallon container, 1 liter of chlorine and one 30ml dropper), 5 solid waste receptacles (100 liters), 10 bags of lime and five 1,200-liter water tanks and accessories. **Package D** contained 50 latrines, 500 safe water kits (one 5-gallon container, 1 liter of chlorine and one 30ml dropper), 5 solid waste receptacles (100 liters) and 50 bags of lime.

Activities are being carried out on the use of different water purification methods in the Tacaná, Tajumulco, Ixchiguán and Sibinal municipalities and the Ocos and Ayutla areas in the department of San Marcos. Emphasis is being placed on the SODIS (solar disinfection) method.

In San Marcos, water will be provided to 1,000 families living in shelters via the construction of 60 rainwater collection systems with 1,200-liter storage tanks. Training will be provided on chlorine use and system management. 60 clothes-washing stations, 140 latrines for men, 120 latrines for women, 100 solid waste receptacles and 240 public bathing facilities will also be constructed. Trainings will focus on the following issues: the importance of hand washing, personal hygiene, solid waste management, latrine use and management and water purification methods, including SODIS, boiling and chlorinating. Personal hygiene items will also be provided.

In addition, CRS will provide clean water to 1,250 families in 35 community in San Marcos by rehabilitating wells and water distribution systems, providing 5-gallon containers, constructing or rehabilitating 625 home latrines, constructing or rehabilitating 625 home sewage management systems, providing training on safe water management and using the 8 modules of the CRS Guatemala Health, Water and Sanitation Strategy. The eight modules are: educational strategy; community participation and organization; maternal-infant health and nutrition; disease prevention; medical referrals; water and sanitation technical manual; food distribution/use and the health information system; and water and sanitation.

In the departments of Santa Rosa and Retalhuleu, CRS is cleaning and disinfecting traditional wells, which will benefit 1,800 families. Households will also be provided with water treatment kits. CRS has begun constructing dry composting latrines that will benefit 325 families. Safe water training is being provided to 1,800 families.

In addition, funds from another project will be used to benefit another 1,800 families, providing them with access to water and sanitary services as part of the comprehensive project strategy. This strategy includes the rehabilitation of water distribution systems, basic sanitary services, water storage for home

use, health education, the MOC strategy (Maintenance and Operations Committees) and the preservation and management of water basins.

The health, water and sanitation intervention strategy, focused on preventative health and comprehensive projects, is practical and responds to the essential needs of intervention areas.

The health strategy and water and sanitation training modules cover the majority of relevant issues in these areas.

The evaluation team recommends that, in the future, relevant mental health activities be included and that knowledge, messages, skill development and ability components be integrated into other activities carried out.

Of special importance is the strengthening of the COCODES and their water committees, as the efficient operation and sustainability of the rehabilitated water distribution systems depends a great deal on their capacity.

Although it is clear that the latrines (bell type) employed have been technically acceptable, they are not to the liking of the local population.

Other latrine models should be used for the latrines that are still to be built.

Numbers projected for water and sanitation activities such as liters of consumption water per person, washbasins, latrines, hygiene areas and solid waste management, all meet minimum Sphere Project standards.

During field visits, the evaluation team observed that single-family shelters are being built separate from each other (depending on land availability).

The team recommends complying with both service quantity standards and location standards.

For example, aside from the quantity of latrines, they should be located no more than 50 meters from houses. The indicator can be established based on the number of families.

In the coastal region where wells are being rehabilitated, a bacteriological analysis would be advisable as flooding caused wells to become contaminated with latrine contents. In addition, existing latrines are pit latrines and could continue to contaminate the water table. CRS specialists mentioned that they conduct residual chlorine analysis of water consumed by families but there was no access to reports.

Given the fact that 3 of the 4 projects that are implementing the abovementioned activities are still active and that there was no access to project progress reports, the number of beneficiaries can't be evaluated at this moment.

CARE

In the San Marcos La Laguna municipality of the department of Sololá, CARE collaborated in the rehabilitation of water distribution systems during the critical stage of the emergency, purchasing 3 filters that were installed by the Agua Association. In Panajachel, CARE distributed bottled water in shelters and affected communities and rehabilitated potable water systems in two communities in coordination with Mercy Corps. In the municipality of Santa Catarina Ixtahuacán, CARE rehabilitated water distribution systems in 4 communities and built small, emergency water storage facilities in 7 communities where 7 2,500-liter water tanks were placed. Oxfam GB performed the residual chlorine and bacteriological monitoring.

8 water distribution systems were rehabilitated in the municipality of Tacaná, located in the department of San Marcos, benefiting 542 families (3,098 individuals).

In the municipality of San Marcos La Laguna, located in the department of Sololá, 10 latrines were initially constructed for families that had returned to their semi-destroyed homes. Subsequently, and in

coordination with the reconstruction committee, a latrine for each family was constructed. In addition, a group of latrines were built for a local school. Latrines were constructed in 10 communities in the municipality of Santa Catarina Ixtahuacán and in 4 communities in the municipality of Nahualá. A 50% coverage was achieved for families in these two municipalities.

Together with Doctors of the World, the Ministry of Public Health, Dentists of the World and others, CARE organized hygiene visits in the municipality of San Marcos La Laguna.

In the Tacaná municipality, located in the department of San Marcos, 29 latrines were rehabilitated in 4 communities, benefiting 174 people. In Tejutla, latrines were built for 41 families in a community, benefiting 246 people.

In the San Marcos La Laguna, Santa Catarina Ixtahuacán and Nahualá municipalities, located in the department of Sololá, a total of 509 family kits were delivered. In addition, 1 personal hygiene kit was provided to each family member.

In the Tacaná municipality, located in the department of San Marcos, 782 family hygiene kits were delivered. In Tejutla, 344 family hygiene kits were delivered. In addition, personal hygiene kits were provided to each family member.

The delivery of the hygiene kits was accompanied by training on chlorine use, safe water consumption measures and the importance of personal hygiene.

The family hygiene kits contained one 5-gallon water storage container, 1 liter of chlorine, 1 dropper, a box of garbage bags, matches and soap to wash clothes. The personal hygiene kits contained bath soap, a toothbrush, a tube of toothpaste, a hand towel and two rolls of toilet paper.

Technical personnel (engineers) were available for the rehabilitation of water distribution systems. CARE occasionally coordinated with other organizations, such as with their Boxoncán activities, to optimize materials and human resources. CARE had good technical supervision of rehabilitation works. In addition, CARE has incorporated mitigation measures that will provide greater protection in case of another emergency of similar nature. In some communities such as Pacorral II, Tzanjuyub and Xoljá, technical support was sporadic.

During field visits, affected people stated that they had water all day long. However, the COCODES from some communities said that due to recent population growth in their communities some families aren't connected to the water distribution system, which they would like to see, expanded.

Making agreements with the COCODES from communities where systems are rehabilitated has been a good strategy to distribute responsibilities. Communities pledge to take care of materials, provide labor and offer lodging to specialists when they need a place to spend the night.

It would be helpful to hold trainings in the future to strengthen community water committees.

The type of latrine being used is widely accepted by the population. However, pit latrines tend to pollute the water table.

The construction of composting latrines should be prioritized in order to reduce contamination risk.

Family and personal hygiene kits have been widely accepted by the population. The only request of the users was that the hand towel be substituted for a larger towel, which is understandable given that the population lost all their possessions. Water and personal hygiene activities comply with Sphere Project standards.

Oxfam GB

During the early days of the emergency, Oxfam GB provided and installed 14 5,000-liter water tanks in the municipality of Santiago Atitlán, benefiting 416 families that were located in 45 shelters. The water tanks were removed in November when water service was restored in the municipality. The tanks were then distributed to health centers, schools and other projects. 9 of them were installed in the Panabaj shelter (also located in Santiago Atitlán) where they are connected to the municipal water system.

12 sinks were installed at this shelter and 12 more will be installed for new arrivals to the shelter. Due to the limited space available at the Santiago Atitlán shelter, it wasn't possible to build the traditional bathrooms specified for this project. Showers were installed in the meantime and 10 traditional bathrooms are planned for the future. In Santa Catarina Ixtahuacán, 2 5,000-liter water tanks were installed.

49 potable water systems were rehabilitated in communities located in the municipalities of Nahualá, Santa Catarina Ixtahuacán, San Juan La Laguna, San Antonio Palopo and San Andrés Sametaba, benefiting 37,051 people.

Through a counterpart, ACCSS, Oxfam GB installed 2,500-liter tanks in Chimaltenango and provided safe water management training. Through their ASDENA counterpart, they also installed 10 2,500-liter water tanks in the Pastores community located in Sacatepéquez. The number of beneficiaries of these tanks is not available.

During the critical stage of the emergency, 45 mobile latrines were rented for 20 shelters in the municipality of Santiago Atitlán, benefiting 210 families. 40 pit latrines were built in the Panabaj shelter and CONIC (a counterpart) built 10 more. There is now one promoter per every 10 single-family shelters to supervise and organize latrine cleanliness. 45 more latrines are being built for new shelters in this area.

Hygiene items have been distributed including soap for bathing, soap for washing clothes, toothbrushes, toothpaste, bathroom brushes as well as water, garbage and sewage receptacles. Reports provided mention the delivery of kits and list diverse items in varying amounts. However, the contents of the kits were not detailed. These items were distributed in the Panabaj shelter, in 8 communities in the Nahualá municipality and 6 communities in the Santa Catarina Ixtahuacán municipality.

The water tanks in Santiago Atitlán provided an average capacity of 43.17 liters per person per day. The water used came from Lake Atitlán, which was polluted. Due to the pollution, water chlorination (conducted by Doctors Without Borders and the Ministry of Health) and residual chlorination follow-up (conducted by Oxfam GB) was very important. Home residual chlorine levels were monitored and bacteriological analysis using Oxfam's WATER KIT was conducted in Santa Catarina Ixtahuacán. These activities complemented CARE's work in these communities.

In the Panabaj shelter, the number of faucets and latrines complies with Sphere Project standards. However, the distribution of hygiene products was different. For example, in the Pala community, 85 bars of soap were provided for 99 families. In the Panabaj shelter, 209 bars of soap were provided for 226 families. The standard is 1 bar of soap per person. This situation was partially resolved in the shelter where there was always soap available at the sinks.

The local population accepted the latrine design. During the visit to the shelter the latrines were clean but were giving off a bad odor. No feces were observed in the shelter. Runoff water from showers and sinks, due to their close proximity to the latrines, filtered into the latrine pits and overloaded them.

tubing should be used to dispose runoff water to proper locations.

In the Panabaj shelter there was a permanent specialist present. Water and sanitation activities were comprehensive (provision of water, latrines, sinks, shower areas), which is important. In the Tzacotón, Xabaj 1, Xabaj 2 and Pasquin communities, materials were delivered for system rehabilitation. However, the rehabilitation was done by the local population without technical support that could have yielded better results.

In the future technical personnel with training in civil, hydraulic and sanitary engineering should be hired, and in sufficient numbers, to direct and supervise rehabilitation efforts.

c .- Food security, food aid

CRS

During the first week of the emergency, the Caritas team from San Marcos provided hot food to 7,000 people in shelters in the municipal capital, offering 3 rations per day. When their food and money ran out, they made requests to the unaffected segment of the population to contribute products. There was a strong response to these requests.

In the departments of Retalhuleu, Suchitepéquez, Santa Rosa and Escuintla, CRS and its counterparts purchased and distributed bags of food for 3,000 4-member families for 25 days.

CRS provided 154.7 metric tons of food rations to the populations of 127 communities and capital of San Marcos, 46.5 metric tons of food rations to the department of Retalhuleu, 46.4 metric tons of food rations to the department of Escuintla and 46.47 metric tons of food rations to the department of Santa Rosa. The food delivered corresponded to 10% of the food that they had designated for the year for USAID's Title II program (its use for the emergency was authorized by USAID). These food rations were complimentary to those distributed by other institutions. Food rations were prepared for families of six, providing 344.5 kilocalories per person.

An increase and improvement of agricultural production is planned for the future, which will benefit 3,300 families in Santa Rosa.

Activities in this area have been focused on food aid. The rations delivered supply kilocalorie levels that are much lower than that specified by Sphere Project standards (2,100 kilocalories per person per day).

The evaluation team recommends that, in the future, efforts be made to analyze the rations being distributed by other organizations, determine what affected populations are receiving rations and calculate rations to be distributed based on these data and using Sphere Project guidelines.

Nutritional studies should be conducted during this period, especially with children less than 5 years old, in order to monitor their nutritional state and make any corresponding corrective actions.

The affected population needs greater food support. Aside from food aid, the implementation of productive projects in these areas would be advisable.

CARE

In the department of San Marcos, nutrition-training activities were implemented and food aid was provided. Family food rations contained 100 pounds of corn, 10 pounds of rice, 20 pounds of beans, 5 pounds of sugar, 5 pounds of salt and 1 gallon of oil. Mercy Corps provided funds for the purchase of corn flour to complete the food ration.

508 families were covered in Tacaná, 344 families (2,064 individuals) from 16 communities in Tejutla, 935 families from 23 communities in Sibinal and 500 families from 22 communities in Tajumulco.

In San Marcos La Laguna and Santa Cruz La Laguna, located in the department of Sololá, a nutritionist provided advice to make sure the food aid was balanced. Foods were selected based on area consumption habits and a training plan was designed and implemented. Weight/height evaluations were coordinated with the Ministry of Health and a nutrition student conducted a nutritional status evaluation of children less than 2 years of age in San Marcos La Laguna, Santa Cruz La Laguna and Santa Catarina

Ixtahuacán. Follow-up is being provided to children identified with severe malnutrition. In the municipality of Santa Catarina Ixtahuacán, CARE provided food and coordinated with other institutions to avoid effort duplication. In Panajachel, they provided food to people in a school shelter up until December 15. Food rations provided represented 2,100 kilocalories per person, in compliance with Sphere Project standards.

In San Marcos La Laguna and Santa Cruz La Laguna, fresh vegetables such as chayotes, carrots, tomatoes, onions and some fruits such as oranges, apples and plantains were added to the rations.

During the field visit, beneficiaries stated that that were provided with sufficient food and still have some of the food provisions. However, they expressed their fear of not having enough food in the future.

CARE complied with Sphere Project standards regarding food aid, providing 2,100 kilocalories per person per day. In addition, sources of micronutrients and vitamins were incorporated into the food rations.

The nutritional evaluations that were conducted were of great help in identifying malnourished children.

The evaluation team recommends that this activity continue and be expanded to include pregnant and breastfeeding women.

Two CARE projects have been approved that include funds to purchase seeds to be used for food production activities.

More projects of this nature are needed in the affected areas.

Due to crop loss and the current situation of affected populations, the continuance of food aid will be necessary.

Food distribution has taken place in affected communities, ensuring that food is delivered to affected individuals. Only during the beginning of the emergency was food distributed in municipal capitals.

Oxfam GB

In the department of Sololá, support was provided to 815 families (approximately 4,075 people) in 5 shelters in the municipalities of Santa Catarina Ixtahuacán, Santiago Atitlán, Nahualá, San Juan La Laguna and San José Chicayá. Food rations are being provided to complement the food that beneficiaries receive monthly from the WFP. Food rations include fresh foods. A second delivery that won't include fresh food is planned for 1,100 families. The first round of food rations contained 23Kg of corn, 2.3Kg of rice, 1.2 tins of sardines, 30 eggs, 0.92Kg of salt, 2.3Kg of sugar, 2.8Kg of potatoes, 3.7Kg of tomatoes and 1.6Kg of carrots. Corn and rice rations were doubled for families with more than 6 people.

In two communities in Nahualá and Santa Catarina Ixtahuacán, support for home gardens was provided to 51 affected families that had some land where they could plant vegetables, had experience in growing crops and showed interest in participating in the project. These families have been provided with seeds and fertilizer.

Through its counterpart, CODECA, Oxfam GB delivered food rations containing 4 pounds of sugar, 2 pounds of beans, 4 pounds of rice, 22 small bags of instant coffee, a bag of soup and matches to 703 families in 7 communities in the department of Suchitepéquez and 3 communities in the department of Retalhuleu. These food rations don't meet the minimum level of kilocalories per person specified by the Sphere Project. When calculating for the needs of a 5-member family for one week, they only provide 286.6 kilocalories per person. Oxfam GB is also implementing productive and small agricultural projects.

With its counterpart, CONIC, Oxfam GB delivered rations containing 12 pounds of sugar, 10 pounds of rice, 5 pounds of beans, a bottle of oil and 6 pounds of salt to 307 families from 4 communities in the department of Retalhuleu. The number of beneficiaries and amount of time rations were delivered for was not mentioned. With its counterpart, Madre Tierra, Oxfam GB delivered provisions to 325 families from 6 communities in the department of Suchitepéquez.

After the emergency, Oxfam GB began agricultural reactivation projects, supporting 457 families with seeds, supplies and technical assistance. Beneficiaries were required to have land available for cultivation and irrigation systems in order to be considered for the project. Some families received support from FIS and FONAPAZ to purchase irrigation pumps. Families have been organized to share available pumps so that more families can benefit from irrigation systems. This strategy has worked well and is optimizing resources. During a field visit to Rancho Alegre, corn plants were observed. They were healthy, tall and well developed. A good yield is expected. Beans and tomatoes were planted together with the corn. The beans are growing well but the tomato plants have been attacked by a virus spread by white flies, which will result in crop loss.

200 families are being supported with egg-laying hens and 250 families are being supported with hens for consumption in Cuchupán.

Food aid in the department of Sololá was planned as a complement to food distributed by the WFP and, as such, doesn't meet the minimum Sphere Project kilocalorie standards on its own. The inclusion of animal protein and fresh vegetables was important even if they were only provided once. It would be desirable to continue providing this kind of aid.

In the departments of Retalhuleu and Suchitepéquez, there was no mention of food deliveries to complement aid provided by counterparts. The kilocalorie level of these rations was very low. The productive projects that are being implemented along the southern coast are a good complement to the food security work being carried out in the area. Implementing similar projects in Sololá would be helpful. No further evaluation of these productive projects can be made because there was no access to the projects or project progress reports.

d .- Shelters, protection and other

CRS

During the critical stage of the emergency, CRS provided blankets in Chimaltenango and Sololá and sheets in Escuintla, Retalhuleu and Santa Rosa.

In the department of San Marcos, single-family shelters are being constructed that are appropriate for the low temperatures and weather conditions these communities face. Here CRS is distributing clothing, sponge pads, sheets and blankets to provide protection and hygiene.

CRS has developed a single-family shelter construction manual that details the steps for their construction.

The single-family shelters being built cover 5x3.76 meters and are located on plots of land that are 5x6 meters.

The protective items were of much help. One blanket per person was adequate, especially for people located in cold areas.

The material used for the shelters fulfilled the requirements for areas with low temperatures. An area of 18.8m² is sufficient to shelter a family of five, complying with the Sphere Project standards.

CARE

In the municipality of Tacaná, located in the department of San Marcos, CARE provided clothing and blankets in 17 communities. They also assisted in establishing and organizing community and municipal shelters where they provided food, water, clothing, medicine, blankets and medical care.

In the Panajachel municipality, located in the department of Sololá, CARE provided materials to build minimum shelters for 10 families and provided materials to the Las Manos Foundation to construct

temporary shelters. In San Marcos La Laguna, kitchen utensils were distributed to 60 families that lost all of their belongings.

Activities in this area were relevant to the needs of the population. CARE didn't built shelters but rather provided materials for their construction.

Oxfam GB

Oxfam GB provided 585 women in Santiago Atitlán with materials and accessories to make huipils (a traditional garment worn by women). This group is already wearing their huipils and is now making extras. 135 more women will be supported in this area.

In Santa Catarina Ixtahuacán, the process has been slower due to the fact that in this area there is a good deal of huipil diversity and different materials are needed for each one. Of the 552 women identified to participate in this project, 346 women have received a complete set of materials and accessories and 206 have only received materials.

Cleaning items such as brooms, kitchenware, wood to build beds (with the aid of a carpenter), stones to grind corn, pots, ladles, plates and other items in various quantities were distributed in shelters in Santa Catarina Ixtahuacán, Nahualá and Santiago Atitlán.

Reports mention the provision of kits but don't mention what the kits contained. A list of diverse items in varying quantities accompanied the reports. The tailoring of the huipils provided, aside from a culturally accepted garment, a positive mental health activity as it captured the interest of women and provoked creativity.

2.2 Effect of Prior Work of the Agencies in Areas Affected by the Disaster

CARE

Before the Stan disaster, CARE was implementing environmental and governance projects in the municipalities of Tacaná and Tejutla and reproductive health and micro-credit programs in Santa Catarina Ixtahuacán. No activities were being implemented regarding water and sanitation, food security, public health or disaster management. For CARE, working on disaster mitigation and risk management represents a challenge.

CARE's knowledge of the affected areas, work relationships with the COCODES, coordination with municipal authorities to develop projects in the area and the physical presence of CARE teams in affected areas enabled CARE to respond quickly to the disaster and led to a fluid coordination with community leaders and municipalities.

CRS

Caritas and catholic social teaching teams, CRS counterparts, are implementing different programs with affected populations. - They also communicate with religious and community leaders (COCODES) in the affected communities.

Before the emergency, the Caritas team was implementing sustainable agriculture, health, water, education, food, and community organization programs in 70 communities in San Marcos in the municipalities of Tacaná, Sibinal and Tajumulco. In Retalhuleu, Santa Rosa and Suchitepéquez, CRS conducted trainings on risk management, first aid, evacuation, rescue and other issues in order to strengthen the community organization of the COCODES.

Community organizations organized commissions and subcommissions, sent representatives to mayoral offices to report community damage, requested food aid, accompanied field teams to conduct damage and needs assessments, monitored water sources and reported damages to water distribution systems.

The relationships that CRS had with local communities enabled them to establish rapid contact with the communities and determine what their needs were. There was good coordination with the municipality in San Marcos. In areas where CRS was not previously working, community coordination and access was difficult.

Oxfam GB

Oxfam relied on its counterparts to implement emergency projects and to assess the situation in affected areas. The Community Health Services Coordinating Association (ACCSS) and Nuevo Amanecer Association provided support in Chimaltenango and Retalhuleu, the Farmer's Development Committee (CODECA) provided support in Retalhuleu and Suchitepéquez, the National Indigenous and Farmer Coordinating Committee (CONIC) provided support in Retalhuleu and Quetzaltenango and the Madre Tierra Women's Association provided support in Suchitepéquez. Oxfam GB's response in these areas was swift thanks to the prior work of these organizations in the region.

2.3 Response Speed

CARE

CARE's response began the first day of the emergency in Sololá, the second day in San Marcos and the third day in other areas. Destroyed bridges and highways made accessing isolated communities difficult.

Institutional policy requires emergency response to commence within 72 hours. The presence of operations staff in affected areas enabled the provision of immediate emergency care including participation in non-standard institutional activities such as rescue.

CRS

Physical presence of CRS counterparts in affected areas enabled an immediate response. The preparation and delivery of food for people in shelters started the first day of the emergency in San Marcos. CRS, together with other institutions working in the area, provided 7,000 people with hot food three times a day for seven days.

For areas where there were no work contacts, CRS communicated with bishops to learn about the local situation. CRS then responded in accordance with identified needs.

Oxfam GB

Oxfam GB began its community activities through the work of its counterparts. Their counterparts began their response in areas where they were working when the disaster struck and expanded their response as access permitted. 15 communities were covered in the departments of Retalhuleu, Suchitepéquez, Chimaltenango, Escuintla Sacatepéquez and Huehuetenango.

Oxfam's evaluation team began its work on October 11, carrying out immediate water and sanitation interventions at the same time as the evaluation.

2.4 Damage and needs assessment phase

CARE

During the critical stage of the emergency the only information available was that provided by community leaders and COCODES members that managed to get to the municipal capitals. This information was untrustworthy but the only information available. There were no preestablished criteria to define who was to be considered affected. Some considered that only those that had lost all their belongings should be classified as affected, while others felt that those that had to abandon their houses because of imminent risks should be classified as affected. The estimates that authorities made regarding the number of affected people were also greatly over and underestimated because they didn't have a database on local populations. Relevant population data was only available in Tacaná where CARE and the Peace Corps had previously conducted a georeference study.

CONRED didn't have the means to either conduct the EDAN or channel the resulting information. Five days after the emergency began they requested assistance from agencies and institutions that were in the affected areas to support the damage assessments, for which they provided an EDAN form. CARE teams used these forms for the assessments. Later they were sent others that had modifications, which they also had to fill out. This process absorbed a lot of time and impaired the provision of humanitarian aid.

In general, the assessment of damage and needs in the municipalities was not well organized. Some institutions only partially collected data and repetitive visits bothered the population to the point that some families placed a note on their doors with data that was requested of them during the first surveys.

Many people modified the EDAN instrument locally because they considered it incomplete. Collected information was sent to offices in the capital and from there to the agency focal point in CONRED.

CONRED is aware of the need to review and modify the EDAN.

The evaluation team recommends reviewing the modifications made to the EDAN format to make sure they are appropriate and for the modifications to be shared with other agencies. Once the new EDAN is developed, field tests should be conducted to check its effectiveness and CARE personnel should be trained on its use.

CRS

On October 11, CRS sent seven multidisciplinary teams to the departments of Escuintla, Chimaltenango, Retalhuleu, San Marcos, Santa Rosa, Sololá, Suchitepéquez and Quetzaltenango to assist their counterparts with the damage and needs evaluations.

In San Marcos, Caritas staff were organized to collect data from 29 municipalities, for which they developed a form based on CONRED's EDAN format. Before this they had developed and used a format to collect general data together with SEGEPLAN and MAGA. CRS found this rapid assessment helpful in the early days of the emergency. There were no damage assessments of productive infrastructure. The municipalities coordinated with other national agencies and institutions to collect data and the collected information was transferred to CRS and SEGEPLAN offices in the capital. The information was later forwarded to CONRED.

The COCODES water committees supported CRS specialists in conducting damage assessments of water systems.

Data collected were shared locally with other institutions, which allowed them to compare their data with data from other sources such as the health services in Suchitepéquez and Doctors Without Borders in Chiquimulilla.

The Retalhuleu diocese team didn't use the damage and needs assessment. Instead, they generated lists of affected people.

The evaluation team recommends reviewing the modifications made to the EDAN format, together with counterparts, to make sure they are appropriate and for the modifications to be shared with other agencies. Once the new EDAN is developed, field tests should be conducted to check its effectiveness and CRS counterpart personnel should be trained on its use.

Oxfam GB

The damage and needs assessment was conducted on October 10 by a team that was specifically charged with that task. They evaluated water, sanitation, health and food security status, using Oxfam GB instruments and methodologies rather than CONRED's EDAN format.

At the same time that they were conducting the assessment, the team was also responding to the emergency, especially on water and sanitation issues. They believe that national technical and logistics personnel should be involved in this area from the very beginning of the emergency.

The team coordinated with mayoral offices and collaborated with other agencies present in the area in order to share data and make decisions regarding what immediate activities to implement.

The team received formats from the CONRED focal point to fill out with information they were receiving from the field but they didn't have much of the data that was requested of them. This led to an increase in work for Oxfam GB personnel. - They didn't receive any information from CONRED and didn't know how the data they sent were being used.

They shared the information they collected with other Oxfam agencies.

The evaluation team recommends sharing the instrument used with the agencies to analyze its advantages and disadvantages.

2.5 Project Development

CARE

A proposal development expert from CARE International created a proposal team using staff from CARE Guatemala country office. This was considered a great help, as it allowed personnel to continue responding to the emergency. Information was requested of field teams that provided local data that they had available to them. It should be mentioned that information in the affected area was scarce and varied from day to day, even in the shelters. Precise data was not available. In five days, CARE prepared and presented multiple proposals, four of which were approved. The implementation of projects began October 15.

Given the positive experience of having external personnel available to develop proposals, the evaluation team recommends that this practice continue and that one or two CARE employees be identified to collaborate with external personnel during future emergencies.

CRS

CRS prepared proposals at its country office in Guatemala City. Data for the proposals were provided by field teams such as in the case of San Marcos where the field team provided both data and suggestions for proposal development and prioritized shelter, water, food security, health and mental health activities. The field teams had little time to work on proposals so working in this way was their best option.

In Santa Rosa, a proposal was prepared with information provided by focus groups and community leaders (COCODES).

The designation of specific personnel to develop proposals was important and led to good results. This form of proposal development should continue, as should consulting beneficiaries regarding their preferences and needs.

Oxfam GB

Oxfam GB developed proposals in Guatemala City. The team that conducted the damage assessment was also involved in proposal development. Oxfam GB's proposals used information provided by their counterparts and the needs assessment by their team. Consultations were also made with affected people to learn about their preferences and customs.

Projects were developed on three main areas: water and sanitation, health and food security. Proposals were prepared for projects in San Marcos, Sololá and the coastal region. The projects developed for Sololá and the coastal region were approved.

Oxfam GB's method of proposal development is practical. Proposals are based on data provided by the assessment team and consultations made with the affected population.

2.6 Human Resources

CARE

When the emergency began, CARE didn't have enough personnel trained in disasters and some key staff had recently stopped working for the institution. In years prior to the emergency, 14 staff members had participated in a risk management course. Only four completed the course and only three still work in the agency. CARE is now beginning a new personnel-training process.

CARE country office had sent an emergency team to El Salvador. However, when they learned of the situation in Guatemala they returned to provide support to the emergency response. The team was involved in activity planning, establishing strategies and operations, finances, logistics and proposal development. CARE subsequently requested, and was provided with, external logistics and human resources support.

During the course of the emergency, CARE mobilized between 90 –95% of its normal project staff for emergency activities, resulting in delays in regular project implementation and personnel strain. CARE staff includes professionals with different specialties, which helped when it came time to create multidisciplinary response groups. However, CARE feels that normal project personnel shouldn't be involved in emergency response activities because key personnel that perform well in normal situations don't always perform adequately during emergencies.

As soon as phone lines were repaired, permanent communication was established between personnel in Guatemala City and field teams in order to establish needs and determine where and how the field teams were. This was greatly appreciated by the field teams.

Non-stop work and long hours led to significant physical and emotional wear on field staff, who later declared their displeasure with not having been given corresponding days off. The agency rule of losing compensation days after a certain period of time will not be applied in this case. These rules should be modified for emergency situations. Personnel involved in the emergency response did not have access to mental health support, which should also be addressed in the future.

CARE leadership recognizes the willingness, hard work and motivation of all personnel during the emergency, and especially of personnel that was in the field.

The evaluation team recommends forming a regional group made up of experts in emergency response issues so that capable national response teams can be formed quickly in the future.

Members of this group should be humanitarians capable of making decisions quickly, maintaining group harmony, working under pressure and be able to communicate in Spanish and/or indigenous languages.

Mechanisms and incentives should be established so that the national response teams and international personnel can be rapidly organized.

Human resource policies should include time set aside for rest, recreation and psychosocial support for personnel involved in emergency response.

Personnel should be trained on issues of risk management, response management, implementation of contingency plans and emergency information management. The training of field personnel in emergency management is especially important.

CRS

Of the San Marcos Caritas team, only one person had been trained in risk management and three had received an EDAN course. The team will soon participate in a risk management workshop. The entire team was involved in the emergency response.

Additional personnel were hired to form part of multidisciplinary project implementation groups.

The diocese team in Retalhuleu didn't have any personnel trained on disasters issues. Only the CRS employee supporting the team had knowledge of risk management. They are now expecting to include the issue in the community trainings that they conduct.

All CRS personnel were involved in the emergency response and regular activities were suspended for two weeks. CRS had the support of a Regional Disaster Advisor.

The CRS country team had 8 specialists that had taken a risk management course at the national San Carlos University. Finance and administrative personnel haven't yet been trained.

The evaluation team recommends that partners, counterparts and personnel from the risk management teams be trained in Sphere Project standards.

Emergency preparation, prevention, mitigation, response, rehabilitation and reconstruction activities that counterparts should carry out during emergencies should be established. Instruments to be used during emergencies should be developed and counterparts should be trained in their use.

Municipalities and community organizations should be strengthened in emergency preparation, emergency response and information management. Community and municipal evacuation routes should also be established.

Oxfam GB

Permanent personnel have not been trained on disaster issues. When the regional office was briefed on the emergency situation, they immediately sent international humanitarian aid personnel to conduct needs assessments and develop response activities.

The team was made up of evaluators, specialists in different areas and volunteer personnel. Oxfam GB hired additional personnel for the emergency response in the department of Sololá. 6 additional people from the Oxfam GB Guatemala team also became involved in the emergency at the time when the majority had returned to their normal activities. According to international personnel working for Oxfam GB, coordination between the Oxfam GB country office and personnel in the field was not efficient and that there should have been greater emphasis placed on coordinating the work of national and international specialists in order to avoid conflicts.

Oxfam GB also received personnel support for administrative and financial tasks.

The evaluation team recommends risk management and emergency response training for permanent Oxfam GB personnel.

National and international personnel should be motivated to integrate their response activities.

Meetings should be held where agency staff that participated in the emergency response can exchange experiences.

Non-work activities should be organized for all personnel to improve interpersonal relationships between national and international personnel.

2.7 Institutional Organization

CARE

CARE has a regional contingency plan but when the disaster struck it was being reviewed. A Guatemalan contingency plan is being developed that will be completed in May 2006. In addition, CARE was in the middle of an internal restructuring process when the emergency situation arose. CARE had an organizational structure to be used during emergencies. This organizational structure was put into practice and personnel were assigned to positions similar to their normal positions. However, the implementation of the organizational structure wasn't practical and it had to be modified four times. The structure was effective for those working as group coordinators.

The municipal emergency teams were made up by a municipal coordinator, a logistics assistant, two water and sanitation assistants, five food and nutritional security educators and five psychosocial care facilitators.

The CARE Director was involved in the response from the onset of the emergency, staying in direct contact with CARE's home office and, initially, coordinating the emergency response, leading to a work overload. The Director subsequently delegated direct response coordination to others.

Each CARE work area has an emergency organizational structure. However, due to lack of experience, the emergency organizational structures were not used. The work areas didn't have any implementation plan and activities were carried out in response to immediate needs that were identified.

The evaluation team recommends reexamining the organizational structure that was useful for this emergency and determine how it could be implemented regionally.

Key institutional personnel should be identified to be included in the emergency response organizational structure, taking into account abilities, experience and personality characteristics. A substitute should also be designated for each position. The emergency organizational structure should be updated periodically to compensate for personnel changes.

Personnel, including home office staff and field teams, should be made aware of the roles and responsibilities of each position that will be activated during emergencies.

CRS

CRS has an emergency contingency plan. However, this plan couldn't be implemented, mainly due to communication problems with personnel in affected areas during the critical stage of the emergency.

Regularly programmed activities were suspended for two weeks in order to respond to the emergency and the following work teams were organized:

A - Field teams responsible for conducting damage and needs assessments and/or planning the overall response, local partner support and coordination. These teams had to be flexible in order to adapt to a wide range of situations, **B – Coordination/information team** made up of agency leadership in charge of general supervision and public relations; management in charge of direct coordination of the emergency; a focal point in the capital to receive information from field teams; an emergency advisor in charge of national and departmental coordination with CONRED; an advisor for the assistant director and field teams; a person in charge of proposals, sitreps and other reports; a person in charge of planning water and sanitation interventions; and a person in charge of knowledge management to prepare lessons learned and document the experience, **C – Administration, logistics and finance team** and **D – Sustainable livelihood and housing recovery team**. An internal and external communication flow chart was also developed.

The Caritas teams from San Marcos and Retalhuleu don't have contingency plans.

In San Marcos, the Caritas team coordinated with the mayor's office to organize the emergency response. The team formed commissions and took charge of coordinating the shelter commission. Other institutions took charge of rescuing and evacuating affected individuals. When aid from different institutions began to arrive in the municipality, CRS led the formation of a transparency committee to supervise the distribution of aid to communities and to avoid bias in the process.

All Caritas personnel in San Marcos were involved in the emergency response. The response was conducted by a religious woman and supported by 30 youths that helped to transport provisions and with other activities.

The evaluation team recommends that contingency plans be developed, processes be established, instruments be developed and trainings be held for partner organization personnel in the different areas where CRS works.

The internal organization of CRS Guatemala and its counterparts should be strengthened and emergency roles and responsibilities should be assigned.

Processes should be established, tools developed and trainings provided for partner organizations in order to be able to respond to different disasters.

A local Caritas risk management team should be formed and trained in emergency response.

Oxfam GB

Oxfam GB has a contingency plan. In addition, as a member of Oxfam International, it has protocols and agreements on emergency response organization. The contingency plan was not put into practice (it was used as a general intervention guide). Instead, Oxfam used an emergency response file containing explicit steps that should be taken when responding to an emergency. Oxfam GB separates its development and humanitarian aid activities.

During the first 3 weeks of the emergency, Oxfam GB organized a work unit made up by the National Director, the evaluation team, all permanent personnel (at that point 6 people) and additional support personnel. The Director was in charge of coordinating all activities, requesting emergency funds, preparing proposals and other documentation and meeting with other institutions in Guatemala City. In November, when the operations team was complete, an organizational chart was established.

According to international Oxfam GB personnel, there was no clarity regarding the roles and responsibilities of field team members, resulting in conflicts between international and national personnel.

The evaluation team recommends reviewing the contingency plan to make it more functional in accordance with needs identified during the emergency.

All personnel should be made aware of the roles and responsibilities of each national and international team member participating in the emergency response.

2.8 Administrative System

CARE

During the first three days of the emergency, CARE operations teams made purchases locally with money that was available to them. Later, they received transfers from the Guatemalan capital from an emergency CARE fund. There was no purchase manager, which negatively affected the response efficiency.

CARE considers that the funds available were insufficient. Purchase procedures were not flexible and price quotes were obtained by phone and later regularized. Special procedures should be established for emergencies.

The evaluation team recommends establishing clear emergency roles for each work area (administration, finance, logistics and human resources). Administrative processes should be made more flexible for emergency situations in order to speed up the emergency response. Different emergency logistical roles and responsibilities should be established, including personnel field presence.

Emergency project managerial capacity of both country office and field teams should be strengthened, with an emphasis on budget management.

CRS

CRS has an emergency fund that it transferred to partners to make local food and water purchases. CRS partners feel that emergency funds were insufficient, which is understandable given the magnitude of the damages caused by the storm. They later requested permission to use CRS funds to implement emergency projects.

The evaluation team recommends making emergency funds available in areas where CRS works so that they can be used immediately during disasters.

OXFAM GB

Oxfam GB has a regionally managed disaster fund for Central America, Mexico and the Caribbean. On the 12th of October emergency funds were transferred to counterparts to be used for food, water and sanitation activities in the southern coast. In the department of Sololá, beginning on the second day of the emergency, the Oxfam GB team directly managed the emergency response, conducted assessments and implemented preliminary activities with funds they had available.

Prices quotes were obtained by fax during the first week and later regularized in writing. During the early weeks of the emergency, there was no one in charge of logistics, which made the response more difficult. A person arrived during the third week of the emergency to take charge of this area. Oxfam believes that the logistics manager should be available immediately during emergencies and be the first person to make field visits in order to evaluate logistical needs and obstacles to the delivery of humanitarian aid.

Administrative processes during the emergency response were the same as during normal times, hindering the response. Administrative personnel, including staff in charge of purchases and finance, were not trained for emergencies.

The evaluation team recommends providing trainings on procedures to follow during emergencies especially for finance and purchasing personnel. Special administrative processes should be established to be used in emergencies.

2.9 Logistics and Transport

CARE

CARE didn't have any radios with which to communicate or other essential equipment for field personnel. They tried to obtain these items, but they weren't immediately available. They eventually acquired them after delays. Some items are being stored for future use. There is no standardized equipment for field teams.

Not all members of the operations teams had corresponding identification, which caused some problems coordinating with local authorities. Temporary personnel were not provided with identification. This point should be reviewed for future emergencies.

CARE vehicles in affected areas were made available to the municipal emergency committees to transport food and other provisions.

The evaluation team recommends standardizing and making available equipment for field personnel. Norms should also be established regarding personnel identification.

CRS

CRS didn't have radios with which to communicate and cellular phones weren't working, which resulted in coordination difficulties between field teams and headquarters. Radios owned by businesses and individuals were used to request help.

CRS personnel deployed to the field carried work equipment (flashlights, etc.). The Caritas team in San Marcos didn't have flashlights, raincoats and other items necessary to do their work.

CRS had vehicles in San Marcos that were used to transport food and provisions to people in shelters. However, they were only able to assist sheltered people in the municipal capital and nearby communities, as there was no access to the more remote communities. The government provided gasoline for the vehicles.

There were food preparation problems resulting from limited cooking space (the rain restricted where they could work), scarce cooking gas and lack of electricity.

The evaluation team recommends standardizing and making available basic equipment for field and counterpart personnel.

During non-emergency times, alternative cooking locations should be identified for when space in the diocese is insufficient.

Oxfam GB

Oxfam GB didn't have enough vehicles, especially during the early days of the emergency.

An emergency logistics manual was used, but the emergency response was slow. Personnel involved in the emergency response should be trained in emergency management.

The evaluation team recommends establishing mechanisms to improve the speed of emergency logistical processes, training personnel on these processes and deploying them to the field at the onset of the emergency.

2.10 Communication and Information

CARE

Intra-agency information flow was poor for CARE and the other agencies. The situation was made worse due to the lack of radios with which to communicate.

CARE established a situation room but asserted that they didn't have any guidance as to what components it should have, who should be involved and how to move forward. Maps were hung and situational reports, including financial information, were prepared and updated daily.

CONRED was sent information received from field teams and other information that CARE generated during the first three weeks of the emergency, using CARE International formats.

Lines of communication were not established and information flow between the field and country office was not fluid. The country office did not have enough information about what was happening in the field.

Information needed – what other agencies were doing and strengths of other agencies would have been beneficial in order to improve inter-agency cooperation during the critical moments of the emergency. Background information on the affected areas would have been helpful, such as local food, customs, etc. Knowing the exact number of affected people. If CARE had to hand all relevant information, it could have provided a faster and more direct response as well as better proposals.

CARE is the only institution that established a situation room, which is very useful during emergencies. After this experience, CARE now knows what information was lacking and what information needs to update daily such as identified needs per CARE sector and geographic area, covered needs, magnitude of the event, principal and alternative access routes, community risk maps, etc.

Background information should be prepared for different areas of Guatemala (high plains, coast, etc.) including food, traditional clothing, hygiene, etc.

CARE's internal coordination and communication should be strengthened, functional lines of communication between headquarters and the field should be established and key personnel identified and given clear responsibilities and tasks. There should be radios and generators in the different areas of the country. Regional communication mechanisms should also be established.

Communities and municipalities should be prepared for emergencies, providing them with support in generating updated community information, advocating for housing construction in less vulnerable areas and establishing work strategies with women.

CRS

CRS had communication problems due to the interruption of phone services.

The information generated in the field was sent to the CRS office in Guatemala City and from there it was sent to the CONRED focal point.

There was no information management in the municipalities. Integrating information was difficult and often impossible. There were personnel from other institutions in the communities that were also collecting information, although there proved to be significant variation in resulting information collected.

The bishop's office in Retalhuleu centralized information, which was later sent to CRS offices.

Information needed – More accurate information regarding affected people and their needs.

The evaluation team recommends establishing a communication structure for disasters that links communities with partner organizations at the municipal level and with CRS offices at the national level, identifying key personnel for each level and specifying their roles and responsibilities.

Radio equipment should be located at strategic points to facilitate communication.

OXFAM GB

Oxfam GB needed more information about what was happening in the field such as approximate number of affected people, needs, etc. They had to make decisions on how to respond and prepare requests for aid using very vague information. However, they used the information they had available to them because they couldn't delay the emergency response. They needed more detailed information for rehabilitation activities.

The information generated by Oxfam GB was shared with other Oxfam agencies and was also sent to CONRED.

The information requested by CONRED (the ECB focal point) caused work overload. Oxfam GB filled out and sent many forms without ever knowing what had happened to that information.

Information needed – Oxfam GB needed to know the number of affected people, what other agencies were engaged in interventions in the area and what kinds of activities they were implementing.

The evaluation team recommends that mechanisms be established to improve communication between the main Oxfam GB office in the capital and field personnel.

2.11 Impact of Agency Activities

a .- HEALTH

Health education activities implemented with affected populations resulted in good water use, clean shelters and surrounding areas, and requests for medical care when symptoms of common diseases presented themselves. Although it is clear that healthy behaviors generated over short periods of time are generally not sustainable, the affected population's good hygiene practices during the emergency had positive individual and group repercussions.

The training of local health promoters on the PHAST methodology by Oxfam GB resulted in strengthened local capacity to provide health education using a methodology that is widely accepted by beneficiaries, who have indicated that they are being taught to analyze their own health problems.

The traditional clothing tailoring activities implemented by CARE to provide psycho-social assistance to youths and Oxfam GB's huipil tailoring activities (although not within the framework of psycho-social assistance) were transforming initiatives that kept the minds of women and youths occupied, fomented creativity, created a sensation of satisfaction, generated work prospects as well as hope for the future.

All group health, nutrition and psycho-social assistance educational activities helped affected people not to personalize the disaster, recognize that the disaster affected groups of people, realize that personal and family characteristics weren't to blame and generated a sense of security due to the presence of aid agencies. Although it is clear that work carried out by the agencies in this sense has been very important, the recovery process is slow and these activities should continue.

CARE's training of teachers on the provision of psychosocial support for children will lead to a better understanding of children's behavior in the classrooms.

b .- WATER AND SANITATION

The provision of safe water, first by supplying bottled water and later through the reparation of water distribution systems, combined with accompanying educational activities had positive repercussions on the health and perceptions of the affected populations. No water-borne disease outbreaks were reported and the affected populations feel that their water needs were covered.

Mitigation measures were incorporated into the rehabilitation of water systems, resulting in greater possibilities of their surviving another disaster of similar nature.

The training of the water committees by the agencies was very important because the proper functioning and sustainability of the rehabilitated systems depends on the on-going work of these committees.

Health education on the use of latrines and the importance of keeping them clean encouraged people to use them (even when they didn't like the latrine style), resulting in reduced disease transmission risks. However, pit latrines run the risk of polluting the water table, especially when located near bodies of water and water sources.

c .- FOOD SECURITY AND FOOD AID

The most urgent need during the critical stage of the emergency was that of food and water, especially for hot food due to low temperatures and constant rain. The Caritas/CRS and CARE teams responded immediately to these needs, generating a sense of satisfaction in shelter residents, who indicated that their needs were met during the first days of the emergency.

The food aid provided by the agencies, according to Sphere Project standards, resulted in greater possibilities that affected people, especially children, would not suffer from malnutrition.

The provision of nutrition training to affected people, including training on issues of food hygiene and the preparation of balanced meals, resulted in healthier food preparation practices and improved opportunities for families to enjoy balanced meals. When beneficiaries are asked questions about the activities implemented by the agencies, they don't mention health or nutrition trainings. However, after observing clean shelters, children washing their hands and good hygienic practices when preparing meals, one can deduce that the activities have had an impact on their practices and behavior.

Oxfam GB's support of family gardens and productive projects for small farmers will lead to improved family diets and income generation. As a result, these activities will have a positive impact on the nutritional and economic situation of beneficiary families; assisting them in returning to the life conditions they had before the disaster.

d .- SHELTERS AND PROTECTION

The construction of shelters using models and materials promoted by CRS were appropriate for the low temperatures of affected areas and were well received by the population because: 1) they were appropriate for the climatic conditions of high-altitude areas of Guatemala; 2) even though they were called temporary constructions, the national reality will convert them into semi-permanent or even permanent housing; and 3) all the shelter materials can be reused to construct new housing.

The tailoring of huipils (traditional feminine garments) had a positive impact on beneficiary women, as they were culturally relevant to the area, showed respect for their culture, kept them busy, fomented creativity and boosted their self-esteem.

Blankets provided by CRS and CARE were greatly appreciated by the affected populations, especially in cold areas, as they were the only protection they had from the intense cold.

3. AGENCY AND ECB COORDINATION

3.1 Nationwide

Before the disaster struck, an inter-institutional forum was created in SE-CONRED by CARE, World Vision, CRS (ECB agencies) and other agencies and institutions such as OFDA, the Red Cross, the Ministry of Health, SEGEPLAN and the San Carlos University. The forum was designed to promote risk management and emergency response preparation. The greatest advances were made in regards to

education, with the inclusion of risk management in the primary education curriculum. CARE headed the advocacy activities for this forum.

During the emergency, SECONRED, CARE, World Vision, Save the Children, Mercy Corps (ECB agencies) and other agencies and institutions such as the Ministry of Health, UNDP, the Red Cross, the San Carlos University, Acción contra el Hambre, Caritas, SESAN, SOSEP, MAGA, SEGEPLAN USAID and OFDA were assembled.

During a meeting on October 3, the ECB Working Group agencies agreed to join efforts to support CONRED. CONRED officials knew of the existence of the ECB Working Group as two weeks prior to the emergency the initiative was presented to CONRED's Executive Secretariat and the Planning Secretariat had participated in an ECB meeting where it stated SECONRED's consent to institutionalize a cooperative agreement with ECB Working Group agencies. Due to the demand for information during the emergency, CONRED decided to establish an information center in their installations and requested that the ECB Working Group set up a focal point to manage incoming information from the ECB agencies. They developed an information format to be used by ECB, SECONRED and USAID agencies and established delivery mechanisms and frequencies. They coordinated with OCHA to establish mechanisms to standardize and operationalize information management processes.

The ECB Working Group participated in this process for 23 days, receiving information from 10 agencies, conducting analysis, updating data and using available information to support CONRED decision-making regarding the delivery of aid to affected areas. This task was later transferred to UNDP. The ECB Working Group agreed to take turns leading this process but not all the agencies complied and the ECB Risk Reduction Initiative Manager⁵ served as focal point.

The work of the agencies and the ECB Project Manager increased CONRED's awareness of the ECB Working Group. However, CONRED originally thought that Mercy Corps was in charge as the ECB Project Manager wore distinctive Mercy Corps clothing. The ECB Working Group also became an entity recognized by international aid organizations such as UNDP and USAID that assisted in coordinating information management.

Communication between ECB agencies was primarily conducted by E-mail. In addition, the following meetings were held: a meeting in October with OFDA/USAID and 11 organizations, of which five were from the ECB Working Group, where OFDA authorized the emergency use of 10% of the food aid that agencies had for the year. Despite this being an ECB Working Group activity, Mercy Corps came across as the organization responsible for the meeting. The ECB Project Manager met with MAGA, the Ministry of the Environment and the Ministry of Health and developed an agreement to carry out the first post-Stan agriculture, vital infrastructure, health and environmental rehabilitation and reconstruction study. This activity was implemented with the collaboration of national institutions and agencies, CARE, CRS, Save the Children, Mercy Corps and MAGA.

Mercy Corps participated in a national water and sanitation meeting convened by UNICEF and the Ministry of Public Health and Social Welfare. During the meeting, water and sanitation activities for affected communities and temporary shelters were standardized. Although the report mentions Mercy Corps, it is assumed that the ECB Project Manager participated in this meeting and represented the ECB Working Group.

CONRED, via the ECB Project Manager, called upon the agencies to address different shelter issues. 11 institutions, 3 of which belonging to the ECB Working Group, participated in the meeting.

During the critical phase of the emergency, the information required by the agencies had to do with road access to affected communities and the affected communities themselves. Later, they needed to know

⁵ The ECB Risk Reduction Initiative manager was hired in August 2005 and is hosted by Mercy Corps. He is referred to as the ECB Project Manager or the CONRED focal point in this part of the report.

which communities still hadn't received aid. The ECB Project Manager responded with the information available, supported by CONRED data.

From October 12 to 28, 8 reports on activities being implemented by the ECB Working Group were prepared. The fact that the Mercy Corps name and logo were on the reports and the emphasis on Mercy Corps activities could have caused confusion amongst the agencies. It is worth mentioning that the ECB Project Manager also filled the position of Mercy Corps Agency Representative during those months. This could have created confusion regarding whether or not the person was acting as the Mercy Corps Agency Representative or the ECB Project manager. Starting in January 2006, another person was named Mercy Corps Agency Representative to the ECB Working Group, enabling the ECB Project Manager to concentrate solely on managing ECB activities.

Some agencies stated that the emergency response would have been the same regardless of the existence of the ECB Working Group. However, it is unquestionable that, during its brief existence, the ECB Working Group has generated an atmosphere of trust among Agency Representatives and increased knowledge of activities being implemented by the agencies in different areas.

3.2 In Affected Areas

a .- Coordination among ECB agencies

Agencies did not coordinate as ECB Working Group members in affected areas due to the fact that agency field teams weren't aware of the existence of the ECB Working Group or the ECB project. However, there was coordination between field teams resulting from goodwill and prior friendships, as many field team members had been work colleagues at some point.

In the majority of cases, coordination was generated and based on needs that arose in the field and cooperative agreements developed locally.

In other cases such as with Mercy Corps, which hadn't previously worked in San Marcos, coordination was carried out with CARE to whom funds were provided for the purchase of corn flour to complement food rations. CARE was in charge of flour purchase, reception, transport and distribution to affected people.

CARE also coordinated with a team of Mercy Corps volunteers that provided health care support in communities located in the Tajumulco municipality. There were problems with this assistance as the volunteers only spoke English. CARE also coordinated with the World Vision facilitator to provide training on special care for affected children to primary school teachers in San Marcos.

In the municipality of Santa Catarina Ixtahuacán, CRS, CARE and Mercy Corps coordinated with each other to construct latrines. Oxfam GB and CARE coordinated with each other to distribute kitchenware and items to protect against the cold in shelters. Oxfam GB monitored residual chlorine in communities where CARE provided water services. Joint recreational activities were organized for health promoters from both institutions. Oxfam GB and Mercy Corps coordinated with each other to supply water to the Tzanjuyup community.

CARE and Oxfam GB coordinated with each other to establish intervention areas in the department of Sololá.

In Boxoncán located in Tajumulco, CARE and Acción Contra el Hambre (which is not part of the ECB Working Group) are coordinating with each other to rehabilitate community water distribution systems. CRS/Caritas is supporting the construction of shelters in this community.

In San Marcos La Laguna, CARE and Doctors of the World coordinated with each other to provide psychosocial support. Both institutions report that working together has been a good experience.

Mercy Corps and CARE coordinated with each other to rehabilitate a potable water system in the Patanatic community located in Panajachel, Sololá. Each agency provided 50% of materials and supplies and CARE supervised the project.

World Vision and Oxfam GB coordinated with each other to deliver food to San Juan La Laguna. Doctors of the World also participated in support activities for this shelter.

b .- With authorities and local organizations

Another aspect of the work carried out by the agencies was to coordinate with local and community authorities. None of the mayors interviewed had been trained in disasters, which made organizing the response very difficult. The agencies provided support in this regard and in many cases played an important role by advising municipal governments. However, in some cases there was less inclination to, and possibilities of, coordinating with local authorities.

CARE's previous work in the affected area enabled the organization to work well with local authorities. In some areas they coordinated with mayors and in other areas with departmental authorities. In San Marcos, CARE was integrated into the food commission that was organized in the municipality, providing support in the transportation of food and provisions.

CARE personnel were the first to provide aid in Huehuetenango. There they supported the creation of CODRED. However, decision-making was difficult in this organization, due to the lack of experience of the authorities in responding to emergencies.

CARE coordinates its normal community work activities with the COCODEs. This experience enabled them to quickly coordinate with representatives from these organizations. In general, the presidents and one other member of the COCODEs were in charge of traveling to the municipal capitals to request aid from mayors and provide information regarding community damage and needs. It should be noted that these requests for aid were not always immediately presented as it sometimes took days to get to the municipal capitals.

CRS mainly coordinated with Caritas, catholic social teaching organizations and the Diocese of the Catholic Church. CRS has established very good communication and coordination with local authorities through their implementing partners. In some cases, such as in Tejutla, work relationships are relatively new, which resulted in inadequate communication during the emergency.

In San Marcos, coordination between Caritas, catholic social teaching organizations, the Diocese, CRS and the mayor's office was very good during the emergency. Aid and hot food was provided to shelters beginning the first day of the emergency. In addition, the leadership and energy of Caritas personnel led to the establishment of a transparency commission led by Caritas personnel. This commission prevented corruption in the delivery of aid to affected communities.

Many mayor's offices have recognized the support provided by the agencies such as the Mayor of Santiago Atitlán, who recognized the presence and support of Mercy Corps, CARE, Oxfam (mayors often only mentioned Oxfam without specifying if it was Oxfam GB or other) and Save the Children. The Mayor of Santa Catarina Ixtahuacán recognized the support of Oxfam, CARE and Mercy Corps.

In Retalhuleu, Oxfam GB maintains good communication and coordination with their counterparts ACCSS and CODECA. These two counterparts coordinate with community committees. Coordination was ruled out with the COCODEs and municipalities.

Save the Children coordinated with municipal authorities in areas where it implemented emergency response interventions. They became part of the COMRED in the three municipalities, serving on the work commissions in Santiago Atitlán and San Lucas Tolimán in Sololá and as COMRED advisors in Patulul in Suchitepéquez.

World Vision implements programs and projects in Guatemala via 41 local organizations called area development projects. One factor that helped in the provision of immediate emergency aid was that the organizations supported by World Vision have food warehouses. The Cotzi Ya (Flower of the Lake) organization in San Juan La Laguna and other organizations immediately used the food in the warehouses.

3.3 Strengths and Weaknesses of the ECB Working Group

a .- Strengths

- The ECB Working Group's data management work with CONRED has led to an increased awareness of its existence and has created an opportunity for the ECB Working Group to participate as a member of CONRED's inter-institutional forum. New work relationships can be formed in accordance with ECB Working Group strengths. However, future work arrangements with CONRED will depend on the demands of the ECB Working Group.
- As a result of the Stan emergency, CONRED will focus its efforts on working with risk reduction and disaster preparedness. CONRED has identified the ECB Working Group as one of the entities with which it can collaborate to provide risk management trainings to personnel from mayor's offices.
- Coordinating information exchange between ECB agencies resulted in improved relationships among ECB Working Group Agency Representatives.

b .- Weaknesses

- Information collected by the ECB Working Group focal point did not return to the field or returned to the field but only after delays, as CONRED authorities wanted to confirm all information before making it public. This was difficult because the information came from different sources. Data differed from institution to institution and day to day.
- As the ECB Working Group was relatively new, the roles of participating agencies were not well defined. As a result, all of the agencies responded to the emergency according to their own discretion and means.
- CONRED officials stated that the use of the EDANs was not well planned. In some areas they were used twice and in other areas not at all. In addition, not all ECB Working Group agencies used the EDAN format that was developed by CONRED, OFDA and CARE.
- There were no standardized procedures for shelter care. Each agency provided care according to its own discretion.
- CONRED had begun a municipal training program but affected municipalities were not included in the program. CONRED feels that the response was unorganized in all municipalities.
- CONRED was not aware of what agencies worked with disaster-related issues or carried out disaster prevention activities in the field.

3.4 Priority Needs for the Provision of an Effective Response

- The ECB formation process, which legitimizes the ECB Working Group, is still weak. ECB Working Group membership needs to be built and agencies need to take ownership of the project.
- Agencies, as ECB Working Group members, need to have a shared vision and define positions for joint work.

- The ECB Working Group should be strengthened so that it is recognized as a cohesive team with common interests and projects.
- As a result of the Stan storm, agencies recognize that they have common needs regarding the improvement of their response capabilities. These needs should be jointly addressed before facing another emergency.
- Sharing experiences related to the emergency response would be a positive step for each agency.
- Not all headquarter offices adequately informed country directors about the ECB project and about their responsibilities as ECB Working Group members. There was a lack of communication at multiple levels.
- The majority of Agency Representatives feel that the project manager needs to be more proactive in promoting initiatives within the ECB Working Group. The ECB group has not been proactive in creating coordination mechanisms.
- ECB Agency Representatives have changed periodically affecting the ECB Working Group's pace of work and its level of knowledge. Only one Agency Representative has participated since the beginning of the project, one since November, three since January 2006 and one beginning a month ago. Four Agency Representatives stated that they were unaware of the ECB project and work plans.
- Agency Representative attendance at meetings has not been continuous. Reasons for absence include work overload, meetings called too often and without prior agendas.
- The terms of reference for the Agency Representatives' jobs do not include a description of the tasks they are responsible for within the ECB Working Group. When the Agency Representatives are evaluated, their actions within the ECB Working Group are not taken into account.
- There is no established profile with accompanying characteristics that the Agency Representatives should fulfill.

3.5 Role the ECB Should Play in the Future to Improve Disaster Response

- Solid representation of the agencies in CONRED, able of advocating for policies and motivating the institution.
- Become a permanent liaison between the agencies and CONRED.
- Be a point of reference that provides trustworthy and timely information to assist in the coordination of agency responses.
- Coordinate activities whose efficiency can be measured with the following:
 - ⇒ Successful activities implemented in communities where two or more agencies are intervening.
 - ⇒ Agency use of previously standardized instruments.
 - ⇒ Emergency response using previously established procedures.
 - ⇒ Streamlined administrative and logistical processes for all agencies.
 - ⇒ Greater coverage in agency intervention areas.
 - ⇒ Populations that recognize successful joint interventions of two or more agencies.
 - ⇒ Uniform information management by all agencies.
 - ⇒ Good information flow between agencies (receiving information from other agencies, analyzing it and returning synthesized information to agencies).

4. LESSONS LEARNED

- The agencies' work under adverse conditions, their commitment to affected populations, their humanitarian focus, their support for affected people and the response that they mustered with scarce available resources, resulted in beneficiaries that were grateful and satisfied with the aid they received.
- The provision of psychosocial support to affected populations was an important part of the emergency response. Activities diverse in nature implemented according to age and sex generated an environment where people could freely participate in activities.
- The systematic health education activities that accompanied water, sanitation and nutrition activities and that used participative adult education methodologies were widely accepted by beneficiaries.
- The magnitude of damage to water distribution systems was too much for available funds and technical personnel. However, the combination of resources from different agencies and a willingness to coordinate with each other led to the repair of a large number of systems.
- The inclusion of fresh food and vegetables in food rations, suggested by beneficiaries, resulted in greater beneficiary acceptance and satisfaction.
- The use of appropriate materials for low temperatures in the construction of shelters helps to create favorable conditions for affected families, especially as many of these temporary shelters will become permanent housing.
- The prior presence of agencies in municipalities, implementing development projects and coordinating with municipal and community authorities, leads to better coordination during emergencies and facilitates the delivery of humanitarian aid.
- The lack of training regarding damage and needs assessments and the lack of instrument standardization led to an unorganized evaluation with duplicate efforts and inaccurate information.
- The involvement of international personnel with experience in disaster issues was a great help to institutions. They provided advice on how to better organize institutional response, participated in project development based on information provided from field teams, conducted damage and needs assessments and participated in emergency response interventions.
- The immediate agency emergency response, even when there were not enough personnel trained in disasters, was characterized by utter commitment and solidarity.
- Simply having agency contingency plans was insufficient. Training and skill development are necessary in order to put them into practice and for them to be of use during emergencies.
- Not having special administrative and logistical procedures for disasters delayed the delivery of humanitarian aid.
- The lack of coordination between ECB project agencies and an unawareness of activities being implemented hampered resource optimization and a better response.
- The immediate response and solidarity shown by the ECB Working Group organizations in supporting efforts to provide aid to affected people was clear, as was that of civil society organizations and the private sector.
- Response capacity was reduced as the storm affected more and more of the country, highlighting the need for prior disaster preparation.

5. CONCLUSIONS

5.1 *Agency response to the emergency*

1. Periodic and systematic health education activities are important during emergencies, demonstrated by the experiences of the agencies on this issue. The methodologies used by the agencies are all valid and at the same time complement one another.
2. It is important to care for the mental health of affected people. Restoring mental health after disasters is essential as not doing so can lead to depression or aggressive behavior.
3. Manual productive activities both generate income and contribute to the restoration of good mental health.
4. The main objective of any water intervention is to make sure that affected people have adequate water supplies, which was achieved by agency interventions. However, the incorporation of mitigation measures during the rehabilitation of water systems is equally important. This was only partially achieved.
5. Rapid interventions to respond to the water needs of the affected population are important. The water packages determined by CRS and the water tanks immediately set up by the agencies helped in this regard. They were rapid interventions that supplied affected populations with water.
6. CRS and CARE's strengthening of community organizations and the water committees led to proper operation and sustainability of the systems.
7. The health education provided by the agencies to accompany water and sanitation activities created a sense of security in the affected population and promoted healthy practices regarding safe water use and latrine cleanliness.
8. Although pit latrines pollute water tables, feces left on the ground quickly become points of infection and also pollute the subsoil. The best option during emergency situations is the construction of pit latrines, as was done by the agencies.
9. The food aid interventions carried out by the agencies was of great help to the population during the emergency. Affected populations stated their gratitude for the aid they received. However, not all food rations complied with the minimum kilocalorie standards set by the Sphere Project.
10. It is important that the population begin to return to their normal lives and sustainable livelihood. Productive projects are very important in contributing to this process. Only Oxfam GB is implementing this type of activity. Other agencies have planned them but haven't begun their implementation.
11. The manual prepared by CRS on shelter construction is a great contribution as it identifies the supplies and quantities that are needed, includes a step-by-step construction guide and is easy to use for field personnel.
12. The blankets and sheets that were distributed to families were appropriate for the low temperatures present in many of the areas where shelters were established.

5.2 *ECB Agency coordination*

1. The ECB Working Group had only held three meetings when Tropical Storm Stan hit. The ECB Working Group's role as coordinator created many expectations in the agencies. However, specific parameters for coordinating emergency situations hadn't been established. As a result, the agencies had different perceptions of ECB related coordination during the evaluation.

2. Agencies participated in the meetings called by the ECB Project Manager along with other organizations, indicate agency willingness and need to continue coordination.
3. There were good examples of agency coordination in the field (both related to the ECB Working Group and otherwise) with governmental institutions, municipalities and community organizations.
4. Inter-agency coordination arose when agencies needed to join forces in order to better serve affected communities or in cases of friendships between technical personnel (many technical personnel knew each other or had been colleagues on past projects). In both cases, the level of coordination depended on personal characteristics of the field personnel and their willingness to coordinate.
5. During the Tropical Storm Stan emergency, ECB Working Group agencies sent the information they collected to the CONRED focal point where it was analyzed and data was updated on their web site. However, the agencies felt that there were delays in returning synthesized information and sometimes no information at all was sent back.
6. The ECB Working Group's information management work with CONRED resulted in an increased awareness of the ECB Working Group both by CONRED and international organizations such as UNDP and USAID.
7. The fact that the ECB Pilot Project manager and administrative assistant have their offices in Mercy Corps has led to significant identification problems and resentment with personnel from other ECB Working Group agencies. Agencies should analyze current advantages and disadvantages and make a joint decision on the matter.

6. RECOMMENDATIONS

6.1 Agency response to the emergency

1. Subject matter, work methodologies and health education techniques should be established during normal times. The evaluation team recommends that the agencies review their methodologies so that positive elements can be included in their models and practice.
2. The evaluation team recommends that mental health activities be included in all emergency response and rehabilitation projects. As in the previous example, subject matter and methodologies should be established during normal times. However, the agencies must be flexible enough to be able to modify them if special circumstances arise.
3. The benefit of manual activities on the mental health of affected people has been established. It is important to include productive manual activities for all population groups (including adult males) in emergency response, rehabilitation and reconstruction projects.
4. The rehabilitation of water distribution systems should include mitigation measures. A database of specialists with experience in this area should be developed so that they can be summoned during emergencies.
5. There should be constant monitoring of the number of people supplied with water starting during the critical stage of the emergency in order to ensure compliance with minimum Sphere Project standards.
6. Water committees should be strengthened and trained during all water training activities and other development projects. These activities should be continued, reviewing subject matter and methodologies in order to make any corrections and keep material updated.

7. The replacement of pit latrines with composting latrines is recommended for the reconstruction stage in order to reduce the risk of pollution of water tables.
8. In order to prevent malnutrition, especially in children, the evaluation team recommends providing food aid in accordance with Sphere Project standards and conducting nutritional studies of children under five years of age and pregnant women.
9. The evaluation team recommends searching for ways that productive projects can benefit all affected populations, but especially those in the high plains area as they have fewer resources and are more likely to suffer from malnutrition.
10. It should be taken into account that the shelter proposed by CRS complies with Sphere Project standards for 5-member families. Corresponding modifications should be made when there are larger families.
11. The evaluation team recommends complying with Sphere Project standards regarding the number of protective items, especially when the shelters are located in areas with low temperatures.
12. Kits for the distribution of hygiene, cooking and other items should be established to facilitate delivery organization and control.

6.2 *ECB Agency coordination*

1. A workshop should be organized for directors, the ECB Guatemala manager, Agency Representatives, agency strategic teams, 1 or 2 general managers and ECB project advisors to jointly:
 - Establish field and management work strategies.
 - Establish responsibilities and tasks for directors, Agency Representatives and field teams.
 - Define priority issues to address jointly.
 - Clarify doubts regarding the project and define common objectives as agencies that are members of a consortium or network (some have suggested they establish a network).
2. Tasks that Agency Representatives are responsible for as ECB Working Group members should be included in their job descriptions.
3. A profile that includes desired characteristics for Agency Representatives should be established and directors should be asked to give Agency Representatives sufficient time and support so that they can fulfill their ECB responsibilities.
4. All agencies should participate in assisting with ECB project work, the development of a logical framework for the Guatemalan project and developing descriptions for methodologies to be used for each programmed activity.
5. Workgroups should be formed for ECB project activities, taking into account agency strengths and delegating responsibilities for the implementation for activities.
6. Activities should be internally monitored on a monthly or bimonthly basis in accordance with the logical framework. Results should be shared with agency directors.
7. Visits should be scheduled for ECB project advisors and general manager so they can provide better support to the Guatemalan project.
8. Internal agency processes regarding logistics, training and response protocols should be shared with the goal of identifying best practices that could streamline agency processes.
9. Agreements should be reached among the agencies regarding the actions that each will take before

and during emergencies, where they are going to intervene during the critical stage of emergencies and what and where actions will be taken during the rehabilitation and reconstruction stages.

10. Standardize the following for all agencies:
 - Items used by personnel participating in emergency responses.
 - Kits to be delivered to communities during the critical stage (personal and family hygiene, water and sanitation, first-aid and other kits)
 - Food rations consisting of food that is culturally accepted according to area of the country.
 - Shelter standards
11. Agency procedures and instruments should be standardized regarding contingency plans, the EDAN, risk management training, situation rooms and shelter construction and management.
12. Background information should be prepared on different areas of Guatemala (high plains, coast, etc.) to be used during the critical stage of the emergency response. The background information should include traditional clothing, hygiene, risk factors present in communities and population vulnerability. Community risk maps should be developed and geographical maps should be available.
13. Agency personnel should be trained on risk management, response management and the implementation of contingency plans. Field personnel should be especially prepared for emergency management.
14. During normal times, joint projects and/or activities should be implemented by two or more agencies in order to improve relationships between agency personnel and develop inter-agency bonds.
15. Coordination between personnel at all levels (country office, operations teams, agency international personnel) should be fomented.
16. Municipalities should be supported and trained in risk management, emergency care and the generation of updated community information.
17. Agencies should work with municipalities and communities to prepare for emergencies, promote the construction of housing in less vulnerable areas and establish work strategies with women.
18. The timely, appropriate and dependable generation, administration, dissemination and use of information should be promoted for improved decision-making during emergency responses.