



Emergency Appeal Final Report	Operation No: MDRGT009
Date of issue: 12 July 2017	Glide No: DR-2015-000150-GTM
Host National Society: Guatemalan Red Cross (GRC)	Operation Budget: 2,037,060 Swiss Francs (CHF)
Operation end date: 4 March 2017	
Number of people affected: 110,000 families	Number of families reached: 1,294 families (out of 1,000 targeted)
Movement partners involved in the operation: Spanish Red Cross, Norwegian Red Cross, International Federation of Red Cross and Red Crescent Societies (IFRC), International Committee of the Red Cross (ICRC)	
Number of other partner organizations involved in the operation: El Quiché Ministry of Public Health and Social Assistance, Municipality of Chiché	

[<Click here for the final financial report. Click here to view the contact information.>](#)

Overview of revisions made to the Emergency Plan of Action:

The Emergency Appeal for Drought in Quiché was launched in February 2016 through a letter of agreement signed in the second half of March. Actions commenced on 28 March 2016; however, during the operation a series of adjustments had to be made to the plan of action because to date only 13 per cent of the budget was covered. Adjustments included:

- Reduction of the number of families and communities to be benefitted, as follows:
 - Food distribution: From 2,000 to 1,000 families
 - Livelihood Strengthening: From 600 to 360 families
 - Rainwater harvesting and storage systems: From 400 to 70 families
 - Hygiene promotion training: From 130 to 50 leaders.
- Elimination of livelihoods diversification activities with organized women's groups, and training for volunteer due to lack of coverage.
- Cut-backs in the number of technicians to be hired. Originally, the hiring of an operations coordinator, one agricultural technician, one nutrition technician, one water and sanitation technician and one logistics administrative assistant was contemplated in the budget; however, this was reduced to one coordinator, one agricultural technician and one logistics/administrative assistant.
- Elimination of the reproduction materials on nutrition educational.
- A one-month extension was requested to finalize the construction of greenhouses and rainwater harvesting and storage systems.

A. Situation Analysis

A.1 Description of the Disaster

The Guatemala's Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH for its acronym in Spanish), reported that the 2015 rainy season was strongly affected by El Niño and its side effects indicated that rain accumulation was among the lowest in 35 years in most of the so-called "Dry Corridor".

Households in the western highlands were affected by the drought, reducing basic grains production, employment opportunities and incomes. In the case of Guatemala, 2015 was the third consecutive year that small farmers were affected by rain shortages. According with Action against Hunger reports, 50 per cent of the rural population had depleted their subsistence mechanisms. By the end of 2015, the Ministry of Agriculture, Livestock and Food reported more than 110,000 families were food insecure because of the drought.

In January 2016, the Guatemalan Red Cross carried out a detailed assessment of rural families in the municipalities of Chiché and Patzité in the department of Quiché. The assessment highlighted that all the families interviewed had lost more than 50 per cent of their crops; in addition, more than 35 per cent of the affected families were implementing survival strategies that included selling their livestock and physical assets.

The following criteria were established to select families and communities:

- Families for whom 60 per cent of livelihoods depend on maize crops
- Households with total or partial crop loss (bean and maize)
- Households led by single mothers
- Households made up of many family members
- Households with elderly dependents
- Households with children under five years of age and/or pregnant women,
- Households with disabled members
- Families with acutely malnourished children

Based on the abovementioned criteria, the following communities were prioritized:

- Choyomche 1
- Choyomche 2
- Choyomche 3
- Carrizal
- San Francisco
- Laguna Seca 1
- Chuicojonop
- Pachaj
- Pazajcap

The IFRC, on behalf of the Guatemalan Red Cross, would like to thank all donors and partners that have contributed to this appeal: American Red Cross, Japanese Red Cross Society, Red Cross of Monaco and the Canadian Red Cross Society (from Canadian Government*).

The balance of this operation (793 CHF) will be reimbursed to the DREF.

A.2 Summary of steps taken

Overview of Host National Society

Through the Emergency Public Health Programme, the Guatemalan Red Cross conducted a rapid assessment in September 2015 on the food insecurity situation in municipalities in southern El Quiché, Chichicastenango, Chiché and Patzité. To this end, departmental and municipal Ministry of Health authorities were contacted, including those responsible for service provision, nutritional and food security, and water and sanitation. Meetings and field visits were coordinated with local leaders to assess the status of the corn crops, water sources, livelihoods, health, child feeding practices, agricultural practices, subsistence strategies, presence of local organizations and community organizing.

The collected information allowed for the implementation of a Disaster Relief Emergency Fund (DREF) in December 2015 in three communities in the municipality of Patzité and five communities in the municipality of Chiché. A total of 991 food rations were distributed using the Mega V system, and 8 Nutritional Surveillance Committees were formed and trained; these committees were made up of 69 community volunteers, who provided nutrition-related training to 653 mothers of children less than five years of age.

Thanks to the appeal, the Guatemalan Red Cross could hire a technical team made up of an operations coordinator, one agricultural technician and one logistics/ administrative assistant., who are carrying out nutrition, water, sanitation, and livelihoods strengthening actions. The water and sanitation and nutrition technicians were not hired because of the failure to meet appeal targets for the budget. With support from volunteers from four branches, the operation delivered

improved maize and bean seed and fertilizer to 360 families, trained 412 people in agricultural practices, constructed collection and storage systems for 70 families and conducted nutritional screening by measuring the mid-upper arm circumference of 288 children under five at high risk of acute malnutrition.

Overview of Red Cross Red Crescent Movement in country

With support from the IFRC and as per the institutional response plan, the Guatemalan Red Cross's staff and volunteers directly implemented, the actions that were developed to deal with the food and nutritional insecurity situation affecting the population living in the dry corridor. Close communications were maintained with the Movement representatives in the country (the IFRC, the ICRC, Partner National Societies [PNSs]) for both the programming of activities and accountability and resource management. During the DREF's implementation, the GRC maintained close communications with IFRC representatives in the region as well as with the IFRC's Pan American Disaster Response Unit (PADRU).

Overview of non-Red Cross Red Crescent actors in country

Despite the losses in maize and bean harvest in the communities of Patzite and Chiche, and the shortage of drinking water, no non-governmental organization or cooperation agency implemented emergency response actions.

Throughout the implementation of the project, activities were carried out in a coordinated manner with the Ministry of Health, such as prioritization and selection of communities, referral and counter-referral of under-five children with acute malnutrition, coordination of the delivery of food rations and accreditation of at least one Health Commission.

Regarding the water distribution activities, the analysis of access to drinking water was coordinated with the municipality, which allowed for the identification of the priorities and for the municipality construction of the a tank to capture and store water in Carrizal and the amount of pipe to be installed. Moreover, an agreement was established with the municipality to send pipes of potable water to the San Francisco community to allow families to store water

Needs analysis and scenario planning

In January 2016, the Guatemalan Red Cross conducted a food security and nutrition assessment of drought-affected families in Chiché and Patzité, Quiché, which identified the need to implement actions to provide, restore, strengthen and diversify livelihoods, as well as nutrition, water and hygiene promotion actions.

Risk Assessment

Guatemala is exposed to various threats, both because of its geographical location, which determines climatic and geological variations, and the political and social uncertainty that currently exists.

The Guatemalan Red Cross's headquarters and branches have contingency plans in place for national elections, as well as Safer Access guidelines to prevent and address violence and insecurity. In addition, the Guatemalan Red Cross policy dictates that community-level actions are to be conducted in coordination with local authorities and support from community leaders to increase the communities' acceptance.

During the DREF operation, no incidents were reported and all the activities were done in coordination with local authorities and communities ladders to avoid security incidents.

B. Operational strategy and plan of action

B.1 Overall objective

The target set in the overall objective was reduced by 50 per cent; therefore, the overall objective was changed to:

A total of 1,000 drought-affected families living in the communities in Chiché and Patzité in Guatemala's Quiché department receive emergency and recovery assistance through food security, nutrition, livelihoods and water and sanitation actions.

B.2 Proposed Strategy

Based on the food and nutritional insecurity assessment, the operation proposed that the following livelihoods, nutrition, water, sanitation and hygiene promotion actions should be conducted:

- Delivery of food rations containing maize, beans, rice, INCAPARINA (nutritious soy- and maize-based cereal), oil, and sugar fortified with iron and vitamin A
- Livelihoods restoration through the provision of improved maize and bean seed
- Livelihoods strengthening through training in improved agricultural practices for maize and bean production
- Diversification of livelihoods through the implementation of community nurseries and gardens to plant vegetables
- Nutritional actions to improve child-feeding practices and to identify children under five with acute malnutrition by measuring mid-upper arm circumference
- Rainwater harvesting in communities without access to safe water
- Water system management, operation and maintenance
- Educational sessions on water management and hygiene promotion

The proposed strategy was maintained as initially established, with some exceptions due to the appeal's limited coverage. Food security, nutrition, livelihoods, water, sanitation and hygiene promotion activities were carried out; nevertheless, it was necessary to reduce the number of beneficiaries and eliminate livelihood actions as described below:

- Reduction of the number of families and communities to be benefitted as follows
 - Food distribution: From 2,000 to 1,000 families
 - Livelihood Strengthening: From 600 to 360 families
 - Rainwater harvesting and storage systems: From 400 to 70 families
 - Hygiene promotion training: From 130 to 50 leaders.
- Elimination of livelihoods diversification activities with organized women's groups, and training to volunteers.

B.3 Operational Support Services

As established, the Guatemalan Red Cross Health Directorate, through the Emergency Public Health Programme, implemented the project's actions. The project was conducted in accordance with guidelines issued by the General Directorate and with support from the Financial/Administrative Management, Internal Audit and Communications Departments.

Human Resources

The Quiché Branch executed the project, with support from a technical team composed of a 1 project coordinator, 1 WASH coordinator, 1 agricultural technician and 1 administrative technician; meanwhile, the Emergency Health Coordinator supervised the operation with the support of the Health Director.

Throughout the intervention, 10volunteers from the Quiché branch participated with support from 1 volunteer from the El Palmar branch,2o from the Mazatenango branch, 6 from the Serchil branch, 2 from the Tejutla branch, 1 from the Santo Tomas de Castilla branch and 2 from the Cobán branch, as they had experience in nutrition, health promotion, using Open Data Kit (ODK) and humanitarian aid distribution.

Logistics and supply chain

For this project, GRC's headquarters purchased food and supplies for the affected communities; the GRC delivered food items directly to the beneficiary families in the communities, while the GRC Quiché branch distributed the items and tools needed to implement the rest of the livelihood actions, which were later transported to the communities by GRC vehicles. In the case of water projects, these were implemented through construction firms, which were responsible for transporting all the materials that were used.

A small amount of materials and supplies were temporarily stored in the Quiché Red Cross branch warehouse before they were delivered to families and communities.

The biggest challenge was purchasing certified, improved native maize and bean seed, as none were available in the country due to the previous year's drought. The process took longer than expected, as the country's only supplier (the Agricultural Science and Technology Institute, a unit under the Ministry of Agriculture, Livestock and Food) had to secure the amount of required seed.

Information Technology

A 2-metre and an 11-metre radio communications system with nationwide coverage was made available, which allowed for communications and the coordination of operational and security aspects. Radios were installed in project vehicles and at branch facilities; however, it was necessary to invest in phone cards for volunteers in the field because there were no personal radios

The ODK and Mega V tools were used for this intervention, which helped with the processes to identify and select beneficiaries at the beginning and at the end of humanitarian aid distributions, as well as for the beneficiary satisfaction survey.

Communications

The organizational structure of Guatemalan Red Cross includes a Communications and Press Department responsible for disseminating the activities carried out by the National Society, including the drought appeal's achievements and coverage. Over the course of the project, the department filmed three spots to raise awareness about the drought-affected families' situation, made an eight-minute video of the actions carried out during the first three months of the operation and took pictures and posted them on GRC's Facebook page. Both the video and the spots were shared with the IFRC's country coordinator

Security

In line with the eight Safer Access pillars, all Guatemalan Red Cross personnel involved in the operation wear the uniform and promote the Fundamental Principles and Humanitarian Values.

In light of the latest political situations in the country and the prevailing situation of insecurity in some localities, the project's technical team implemented a Security Plan to ensure the safety of volunteers and management team in Quiche; this plan included elements such as informing the Emergency Operations Centre (EOC) regarding any type of incident occurring in the area of intervention, logo use, schedules for the field work and coordination with other institutions and community leaders.

Planning, monitoring, evaluation and reporting

Planning, monitoring and evaluation for the project were carried out per guidelines issued by the Health Directorate and the project's Monitoring and Evaluation Unit. From the outset, the technical team used information registration, processing and analysis tools to ensure the fulfilment of project indicators and the submission of monthly progress reports to GRC's headquarters. Data on people benefitting from training, inputs, food, tools, seed and water installations were recorded with official participant lists and delivery records, which included their personal identification numbers, dates of birth, addresses, telephone numbers and signatures; this information was entered Guatemalan Red Cross' monitoring software, which helped the GRC develop the project's indicators.

The aspects that were monitored included the number of affected families, families who received humanitarian assistance, mothers who participated in educational sessions, home visits made, the nutritional status of children under five years of age with acute malnutrition, community leaders trained in nutritional surveillance, percentage of women's participation in project activities and volunteers involved in the response.

To ensure the quality of the intervention, headquarters technicians and the project's technical team members visited communities to monitor the implementation of actions. Likewise, beneficiary satisfaction surveys were carried out and suggestion boxes were installed for each of the conducted activities.

Finally, a lesson learned workshop was held with the various actors involved in the response, including the community leaders who participated in the project's implementation.

C. DETAILED OPERATIONAL PLAN

Quality programming / Areas common to all sectors			
Outcome 1: Continuous and detailed assessments and analysis are used to inform the design and implementation of the operation	Outputs		% achieved
	Output 1.1. The management of the operation is informed by a comprehensive monitoring and evaluation system		Plan of action and sectorial plans for which a monitoring and evaluation plan has been developed: 100% Planned evaluations take place with lessons learned and a management response provided: 100%
	Output 1.2 Operation activities are disseminated at the local, national and regional levels		No. of press releases issued: 3 bulletins No. of beneficiary stories prepared: various beneficiary stories and 1 video No. of publications in the media reporting GRC actions: 10
Activities	Implement on time		% of progress
	Yes	No	
Hiring of operational staff and staff to support the operation in the field	X		100%
Community assemblies to present the project	X		100%
Monitoring visits	X		100%
Progress reports on the affected communities	X		100%
Documentary on activities	X		100%
Beneficiary satisfaction survey	X		100%
Lessons learned workshop	X		100%
Development of beneficiary stories	X		100%
IFRC monitoring	X		100%
Identify and implement a complaint mechanism	X		100%
Achievements			
<ul style="list-style-type: none"> • Several evaluations were conducted from November 2015 to February 2017, and all but the feasibility study and suggestion boxes were done with ODK: <ul style="list-style-type: none"> ○ Beneficiary census: This was the first activity that was carried out as part of the project; it helped organize the cleansing the list of beneficiaries in communities and ascertain the name of the person receiving the assistance. The information obtained was used to print cards with bar codes, which were later assigned to each participating family. The census was updated with the inclusion of one new community in May 2016. ○ Vulnerability assessment to prioritize beneficiary families: Community leaders participated in this activity and provided vital information about families suffering from the greatest vulnerability, which enabled the selection of 70 families to benefit from the installation of rainwater collection and storage systems, 360 families to benefit from the provision of seeds, fertilizer and agricultural improvements; and 1,000 families to benefit from food rations. ○ Nutritional screening for children between the ages of 6 and 50 months: Two nutritional screenings were conducted by measuring the mid-upper arm circumference of children between 5 and 59 months of age in eight participating communities. A total of 485 children were screened in December 2016, finding a 1.24 per cent prevalence rate of acute malnutrition, and 288 children under five were screened, who had prevalence rate of 1.04 per cent ○ Detailed food security and nutritional assessment: This assessment was conducted in December 2015; the GRC interviewed a sample population of 76 families, with a reliability level of 90 per cent (according with the Z table). Of interviewees, 67 per cent were women and 33 per cent were men. A Guatemala Humanitarian Network tool was used to measure health, food security, livelihoods and nutrition, covering aspects related to availability and access to food, livelihoods, water, sanitation and food consumption; This assessment 			

enabled the launch of an international appeal to mitigate the drought's impact on the affected population's health and nutrition.

- Satisfaction Survey: A beneficiary satisfaction survey was conducted in December 2016 with 77 participants, 74 per cent of which were women and 26 per cent were men; the results showed that 100 per cent of the people surveyed observed a member of the Red Cross working in the community during the intervention, 96 per cent indicated that the treatment they received was good, 98 per cent indicated that the Guatemalan Red Cross fulfilled the commitments it assumed, and 97 per cent indicated that the quality of the products that were delivered was good. In addition, a qualitative survey was carried out in February 2017 through suggestion boxes so that the beneficiaries could express their opinions regarding the project in a confidential manner; of the 69 people who put comments in the box, all expressed their appreciation for the assistance provided, including positive comments about the quality of food and supplies delivered. In addition, 17 people requested that the aid continue, especially food, seed and pylons for planting vegetables.
- Feasibility study to implement a CTP: The IFRC's Cash Transfer Checklist was used to establish the method for the second delivery of humanitarian aid; the information was obtained by interviewing representatives from the Catholic Church and Municipal Women's Office, municipal authorities and community leaders, addressing topics such as socio-economic aspects, access to markets, banking institutions in the region, and the benefits and risks that could result from cash transfers. The information determined that cash transfers were feasible; however, municipal authorities, representatives from the Municipal Women's Office and community leaders indicated that they would prefer food deliveries. Families were likewise consulted in community assemblies, and they also chose to receive food instead of cash.
- Maize and bean harvest yield survey: This survey was conducted in December 2016, the month in which the maize and bean harvest ended. Maize and bean production in 2015 was compared to maize and bean production in 2016 in the same land area, yielding the following data:
 - Recommended sowing techniques were applied to all the evaluated monitoring plots, using three seeds per hole instead of the five or six used in previous years.
 - A total of 28.5 quintals of maize harvested in 2015 versus a total of 78 maize quintals harvested in 2016 in the same land area.
 - An average of 1.14 quintals of maize harvested per plot in 2015 versus an average of 3.12 maize quintals harvested per plot in 2016.
 - A total of 3,952 pounds of beans harvested in 2016 versus 911 pounds harvested in 2015 in the same land area.
- The IFRC's representative visited the Guatemalan Red Cross, which assisted with the technical and financial aspects of the Drought Project



Photo: IFRC delegate's visit to Quiché, Community of Choyomche February 2017/ Source: GRC



Photo: Quiché 2017 Delegation Drought Appeal lessons learned workshop. Source: GRC

- Lessons learned workshop: At the end of the operation, the Organizational Development Directorate conducted a lesson learned workshop attended by the Quiché Delegation Board and volunteers, which supported the project's implementation, the General, Health and Disaster Risk Management Directorates, and the Accounting, Monitoring and Evaluation, Communications and General Administration Departments; leaders from participating communities attended as well.
- Due the findings found for the purchase of food kits during 2015 and 2016, an external audit was carried out in coordination with Geneva, with the aim to facilitate the eligibility, on time, of two purchase processes. This process was implemented in the first quarter of 2017, giving as evidence no integrity risk in improper use of funds incurred by the National Society for the operation.

- Throughout the intervention, the Communications Department developed and disseminated 1 video, spots, 3 press releases and 2 bulletins to share the project's achievements and the people reached. In addition, local newspapers covered the implemented activities.



Photo: Nuestro Diario, September 2016



Photo: Nuestro Diario, January 2017

Challenges

- As mentioned before, the low appeal's coverage limited the production of videos and the implementation of all the rapid surveys to measure beneficiary satisfaction.

Lessons learned

- Drought interventions should be designed to ensure their sustainability and that affected communities derive maximum benefits; consequently, the effective involvement of local communities is critical.
- Community knowledge, skills and adaptive capacities are invaluable to ensuring that real benefits are derived from interventions by making them appropriate, acceptable and sustainable.
- Drought has always been treated in Central America as strictly an emergency, and thus, it is not adequately addressed in medium to long-term development plans. Moreover, the absence of preparedness plans and adequate early warning systems has exacerbated the impact of past droughts; consequently, there is a need to shift from the typical ex-post to an ex-ante response to droughts.

Water, Sanitation and Hygiene Promotion

Needs analysis: Most families managed to meet their basic drinking water needs; however, in the case of families in the community of San Francisco in the municipality of Chiché, getting drinking water involved a two-hour walk because they had neither piped water service nor nearby water sources. These 70 families also lacked suitable containers for storing water and setting up rain harvesting systems.

Furthermore, an assessment of this municipality's water quality conducted by the Ministry of Health in May 2016 found *E. coli* levels in water sources of targeted communities (Carrizal, Choyomche 1, Choyomche 2 and Choyomche 3) that ranged from 20 to 10,000 colonies per 100 ml; despite the high levels of *E. coli*, the affected families and organized communities rejected chlorinated water because they disliked the taste.

Population to be assisted: Because of budget constraints, actions focused on providing rainwater collection and storage systems to 70 families in San Francisco and Carrizal, as well as safe water use and sanitation promotion using the Participatory Hygiene and Sanitation Transformation (PHAST) methodology and the installation of chlorinators in four communities.

Water, Sanitation and Hygiene Promotion

Outcome 2: Contribute to improved access to, storage, and handling of water through rain	Outputs	% achieved
	Output 2.1. Construction of home rain harvesting systems for 2,000 families	# of households that have new home rain harvesting systems: 70
	Output 2.2 Hygiene promotion activities are provided to the entire affected population (PHAST methodology)	# of families participating in educational sessions: 566

harvesting and protection of water sources in selected communities	Output 2.3 Promote organized community actions to protect water flows and maintain water systems	% of targeted communities that conduct actions to protect water flows and maintain water systems: 22%	
		% of targeted communities that have the means to protect water flows and maintain water systems: 22%	
Activities	Implement on time		% of progress
	Yes	No	
Printing of educational material		X	Eliminated from the Project
Implementation of PHAST methodology	X		556 participating families
Establishment of agreements with communities to implement actions to protect water flows and sources	X		100%
Implementation of actions to protect water flows and sources and harvest rainwater	X		Drinking water pipeline installed in Cantón El Carrizal One 30,000-litre water storage tank built in Canton El Carrizal One community rain harvesting system build at the El Carrizal School
Construction of home water harvesting systems	X		170 families benefited from residential cisterns in the community of San Francisco Two 10,000-litre cisterns for San Francisco School
Hiring of a water and sanitation technician	X		Eliminated from the Project

Achievements

Based on the needs assessment results, the project prioritized the construction of rainwater harvesting and storage systems in the community of San Francisco, as well as the installation of water piping and a storage tank in the community of Carrizal; prioritization was done in coordination with the municipality of Chiché.

Thanks to the intervention, 70 1,250-litre rainwater collection systems were installed, and 2 10,000-litre rainwater harvesting systems were built in San Francisco's school.



*Photo: San Francisco School - 2017
School rainwater collection and storage system. Source: GRC*



*Photo: Community of San Francisco - 2017
Home rainwater collection and storage systems. Source: GRC*



The needs assessment identified 119 families in Carrizal that depended exclusively on streams and springs for their water supply; the drought decreased flows at these sources, putting these families at risk. With support from the municipality of Chiché and community leaders, the project prioritized the construction of a 30,000-litre catchment and distribution tank in Carrizal, as well as the provision of 300 metres of PVC pipe for piping water to the tank; the tank's water chlorination system was left in the care of the Community Health Committee.



Photo: Quiché delegation 2016. PVC pipe for potable water conduction.
Source: GRC



Photo: Quiché delegation, 2017. 30,000-litre tank built in Carrizal.
Source: GRC



Photo: Quiché delegation, 2017. Carrizal chlorinator tank
Source: GRC

Finally, 566 people were trained in the PHAST methodology in six communities in the municipality of Chiché to promote good hygiene habits and safe water handling.

Table 1
PHAST training participants

COMMUNITY	WOMEN	MEN	TOTAL PARTICIPANTS
Choyomche 1	68	11	79
Choyomche 2	106	12	118
Choyomche 3	53	4	57
Carrizal	124	18	142
San Francisco	68	12	80
Laguna Seca 1	81	9	90
TOTAL	500	66	566

Challenges

- The most significant challenge was the population's refusal to consume chlorinated water; however, despite the resistance, this practice was promoted by the PHAST training.
- The number of families to be reach with rainwater harvesting and storage systems was reduced from 580 to 70, and the number of communities where water protection measures were implemented was decreased from 11 to 4 due to the lack of funding.
- Operating and maintaining the water systems proved to be challenging.

Lessons learned

- Activities should be designed to measure a drought's impact on an affected community to help it manage better its emergency response as this will allow the community to mitigate the effects of a drought and possibly provide the way out of poverty for many people; an example of this approach is the positive effect that reducing the time to collect water had on the communities affected by the drought.

Food security, nutrition and livelihoods

Needs analysis: The 2015 drought caused families to lose 50 per cent or more of their crops; seventeen per cent of families reported that they lost their entire corn crop and 24 per cent of families reported that they lost their entire bean crop in 2015.

In addition to the drought, families were using inadequate planting, harvesting, and soil conservation practices; only 7.9 per cent had ever received agricultural modernization training, which explained their lack of knowledge regarding soil protection and conservation techniques, the use of barriers and the incorporation of organic materials. Instead, they engaged in practices that negatively affected crops, such as planting four or five seeds in a single space, which limits plant growth, and burning.

While it is true that families had additional incomes as well as that from small livestock, these were not sufficient to deal with the drought-induced losses. Reports indicated that families began selling their assets and farmyard animals, as well as implementing other survival strategies such as reducing the quality and quantity of the food consumed and resorting to loans to cope with the situation. With support from community leaders and based on information collected regarding family incomes (assets such as vehicles or appliances), the number of family members and land tenure, the GRC identified 360 families in six communities in Chiché that had lost almost all their crops in 2015 and lacked additional sources of income.

Even though the prevalence of acute malnutrition at the time of the GRC assessment was within limits for a normal population (1.24 per cent), there was still a risk of an increase in cases due to the change in food consumption and limited access to drinking water and health services.

Population to be assisted: One dry food ration was delivered to 1,000 drought-affected families. In addition, 360 families with no additional income sources that had a minimum of 1 *cuerda* of land received improved maize and bean seed, as well as fertilizer and technical assistance for planting, soil conservation and grain harvesting and storage.

In addition to livelihoods strengthening actions, nutrition actions were conducted to improve child feeding practices, community nutritional surveillance and the identification and referral of acute malnutrition cases.

Food security, nutrition and livelihoods								
Outcome 3: Immediate food needs of the disaster affected population (1,000 families) are met	Outputs		% achieved					
		Output 3.1. Appropriate food rations are distributed to 1,000 vulnerable households		100% families affected by food insecurity received a food kit at the end of the second month of the operation 100% of families reported that they received food assistance that was timely and appropriate to their needs related to nutritional indicators				
Activities	Implement on time		% of progress					
	Yes	No						
Identify and register affected families using a mobile data collection tool (ODK)	X		100%					
Procure food kits	X		100%					
Deliver food kits	X		100%					
Conduct a beneficiary satisfaction survey	X		100%					
Achievements								
<ul style="list-style-type: none"> Deliver food kits <p>As part of livelihood actions, food kits were provided to families who lost their harvests due to the prolonged drought. The GRC used two different processes to identify beneficiary families during the response; the first process was a census that included families whose maize crops constituted 60 per cent of their livelihoods and who had lost all or part of their harvest to drought. For the second and third deliveries, a process was conducted to remove the families who had livelihoods other than agriculture from the distribution list to include new families that had depleted their food reserves; this was accomplished with support from community leaders, and the GRC reported on this part of the process at a community assembly. Three food kit purchases were made during the operation, which were distributed as follows:</p>								
<p>Table 2 Families who received food kits</p>								
COMMUNITY	FAMILIES WHO RECEIVED A FIRST FOOD KIT				FAMILIES WHO RECEIVED A SECOND FOOD KIT			FAMILIES WHO RECEIVED A THIRD FOOD KIT
	1 st purchase	2 nd purchase	3 rd purchase	Subtotal	2 nd purchase	3 rd purchase	Subtotal	3 rd purchase
Choyomche 1	94	6	11	111	94	0	94	81
Choyomche 2	174	6	9	189	174	0	174	123

Choyomche 3	72	1	5	78	72	0	72	47
Carrizal	189	2	13	204	189	0	189	144
San Francisco	98	19	7	124	98	0	98	88
Xexac	0	10	0	10	0	0	0	0
San Francisco	1	0	0	1	0	0	0	0
Campo Alegre	5	0	0	5	0	0	0	0
Laguna Seca 1	0	0	91	91	0	0	0	0
Families with children suffering from acute malnutrition	0	0	32	32	0	0	0	0
SUBTOTAL CHICHÉ	633	44	168	845	627	0	627	483
Pachaj	144	9	7	160	144	0	144	99
Pazajcap	60	3	4	67	54	1	55	40
Chuicojonop	163	1	25	189	163	3	166	137
SUBTOTAL PATZITÉ	367	13	36	416	361	4	365	276
Families with children suffering from acute malnutrition	0	0	33	33	0	0	0	0
SUBTOTAL	0	0	33	33	0	0	0	0
TOTAL	1000	57	237	1,294	988	4	992	759

The table above shows that 1,294 families received at least one food kit, 992 received two food kits, and 759 families, who lost most of their crops and depleted their food reserves before the rest of the affected families, received a third kit food.

The food items that were delivered were selected according with the region's staple diet; the first and third kits contained 11 kg of black beans, 7 kg of rice, 34 kg of maize, 9 kg of fortified sugar, 9 litres of oil and 4.5 kg of INCAPARINA (maize- and soy-based fortified cereal), which corresponds to a survival ration that provides 1,720 kcal per person per day for a family of six.

Savings stemming from a Value-Added Tax exemption for the first batch of food kits purchased made it possible to increase the number and size of rations purchased for the second delivery to 16 kg of black beans, 9 kg. of rice, 2.2 kg of sugar fortified with vitamin A and iron, 9 litres of oil and 7 kg. of INCAPARINA, for a total of 2,144 calories per day per person for a family of six.

Of the 3,045 rations delivered, 65 were delivered to low-income families with children under five diagnosed with acute malnutrition that did not live in prioritized communities, but were identified by the Chiché and Patzité health services.



*Photo: Quiché delegation, 2016.
Food delivery to families in
Patzité. Source: GRC*



*Photo: Quiché delegation, 2016. Food ration
delivery process in Choyomché 2 using
MEGA V, Choyomché 2. Source: GRC*

The greatest challenge was getting municipal mayors and families from targeted communities to understand why not all the families in the selected communities or all the communities in the municipality were chosen to receive aid.

Lessons learned

It was necessary to hold a series of meetings to explain the Movement's fundamental principles and the nature of the intervention; following these meetings, communities and municipal mayors understood and supported project actions without any further problems.

Food security, nutrition and livelihoods

Outcome 4: Livelihoods are restored among targeted population	Outputs	% achieved
	<p>Output 4.1. Productive assets are replaced and retained by 2,000 families</p>	<p>% of households who report that all assets lost due to the disaster have been replaced: 36%</p> <p># of households provided with productive assets to replace those lost in the disaster: 360 households</p>
<p>Output 4.2 Information regarding better knowledge, skills and practices for restoring livelihoods is provided and used by the targeted groups</p>	<p># of people that participated in information events (awareness, campaigns, trainings etc.) on restoring livelihoods: 418 people</p> <p>No. of participants in training courses reporting at least 3 improved livelihoods practices: 796 people</p>	

Activities	Implement on time		% of progress
	Yes	No	
Identification of affected families using ODK	X		100%
Processes to purchase inputs and seed	X		100%
Purchase of inputs and seed	X		100%
Distribution of inputs and seed	X		100%
Technical assistance for planting and soil management and protection	X		100%
Technical assistance for grain processing and storage	X		100%
Hiring of an agronomist	X		100%
Base line		X	Eliminated from the budget
Livelihood training for volunteers		X	Eliminated from the budget

Achievements

Distribution of inputs and seed: The operation decided to conduct livelihoods restoration, strengthening and protection actions because of the partial loss of maize crops and the total loss of bean crops. Both maize and beans are staples in Guatemalan diets; moreover, maize is a product around which the country's culture revolves, making the intervention to improve and increase production even more necessary. Thus, 778 families received improved native maize and bean seed as well as organic fertilizer and pest control supplies; These products were delivered together with a training process on improved agricultural practices, organic fertilizer production and use, pesticide use, soil conservation and seed storage. All the beneficiary families are described below

Table 3
Families benefitting from livelihoods restoration

ACTIVITY	QUANTITY
Distribution of improved native maize and bean seed	778 families
Distribution of fertilizer	530 families
Distribution de pesticide	285 families
Training on agricultural practices and soil conservation	418 families
Training on seed storage	358 families
Training on organic fertilizer production	20 families



Photo: Quiché delegation, 2016.
Terrace construction for soil
conservation in Choyomche III.
Source: GRC



Photo: Quiché delegation, 2016. Bean plot in
Laguna Seca. Source: GRC



Photo: Quiché delegation, 2016.
Comparison between maize
harvested in 2015 and maize from
improved native maize seed in 2016.
Source: GRC



Photo: Quiché delegation, 2016.
Fertilizer delivery in the community
of San Francisco. Source: GRC



Photo: Quiché delegation, 2016. Pest
control in the community of Laguna
Seca. Source: GRC



Photo: Quiché delegation, 2016.
Pesticide application training.
Source: GRC

Six greenhouses were built and operationalized in five communities to grow tomatoes, which the project's technical team and community leaders jointly selected as part of the livelihoods diversification strategy. To this end, the GRC provided Health Commissions with the materials to build the greenhouses (anti-aphid mesh, wooden boards), organic fertilizer, irrigation system (hoses, water storage tanks), pesticides and tomato pylons. The average size of each greenhouse was 22 metres x 5 metres, with a total of 2,714 tomato plants planted. Twenty community leaders participated in the training, and 120 community volunteers helped to build the greenhouses and prepare the soil; each of these volunteers contributed at least eight hours per day of their time. Each greenhouse was delivered with a document signed by the Quiché's Delegation Board of Directors stipulating that the income generated by the greenhouses would be used primarily to support families with acute malnutrition, as well as to improve conditions in the community; this revenue will also be used to reinvest in pylons and other inputs necessary for production.



Photo: Quiché delegation, 2017.
Building a greenhouse in the
community of Carrizal.
Source: GRC



Photo: Quiché delegation, 2017.
Installing tomato pylons in the
community of Carrizal.
Source: GRC



Photo: Quiché
delegation, 2017.
Tomatoes in San
Francisco.
Source: GRC

Livelihoods diversification actions that were undertaken included the implementation of two demonstration gardens: one at the Quiché delegation and the other in Carrizal. Community leaders will manage the garden at Carrizal's school, which will be used to grow vegetables to improve the schoolchildren's diets. The products that will be grown include:

Table 3
Families benefitting from livelihoods restoration

Community	Greenhouse at the Quiché delegation	Carrizal School Garden	TOTAL
Tomato plants	248	0	248
Cucumber	64	0	64
Peppers	132	0	132
Radish	1,734	200	1,934
Swiss chard	250	150	400
Onion	800	0	800
Cabbage	60	100	160
Beets	75	0	75
Lettuce	175	0	175
<i>Hierva mora</i>	0	200	200
Spinach	0	150	150
<i>Apazote</i>	25	100	125
Bean seeds	200	0	200



Photo: Quiché delegation, 2017. The garden at Carrizal's School. Source: GRC



Photo: Quiché delegation, 2017. Garden at the Red Cross Delegation in Quiché. Source: GRC

Challenges

The greatest challenge was the lack of interest shown by Community Development Council members to assemble families for the educational activities. Since the council members are officially recognized by the municipality, their lack of support in this regard prevented technicians from training all families on seed storage and organic fertilizer

production; however, even though it was not possible to provide all the training sessions to all 778 families, the informal leaders and families who received the training promised to replicate the information.

Lessons learned

- As for the building of the community greenhouses, the GRC determined that it was better to work with Health Commissions in each community and not with Development Councils; this decision facilitated the involvement of several families in the greenhouses' construction and implementation and made it possible to use the resources obtained from each greenhouse to support the families with children with acute malnutrition and community health actions.
- Mass campaigns against transgenic seeds prompted beneficiaries to reject the use of "improved criollo seeds"; in response, technical team disseminated information on the difference between improved and transgenic seeds, and the use of the local language, live demonstrations and the transfer of information and knowledge to the community members resulted in the acceptance of the seeds.

Food security, nutrition and livelihoods

Outcome 5: Contribute to the prevention and monitoring of acute malnutrition in children under five from families affected by food and nutrition insecurity	Outputs		% achieved
		Output 5.1. Identification and timely referral of children under five with acute malnutrition, as well as improvement in child feeding practices	
Activities	Implement on time		% of progress
	Yes	No	
Education and training for community-level nutritional surveillance committee aimed at leaders.	X		100%
Community Nutritional Surveillance		X	50%
Referral of acute malnutrition cases with complications to health services	X		100%
Home visits to follow up malnutrition cases with no complications	X		100%
Coordination with the Ministry of Health	X		100%
Hiring of a nutrition technician for 6 months		X	Eliminated from the budget
Reproduction of educational materials (reproduction of flipcharts and posters)		X	Eliminated from the budget
Educational sessions for 600 families (mothers) on feeding and nutrition practices	X		100%
Training for 56 community leaders on feeding and nutrition practices	X		216%
NDRT training for volunteers supporting the field activities	X		Eliminated from the budget

Achievements

Food and nutrition actions were carried out in two phases. The first phase corresponded to the DREF implemented from November 2015 to January 2016, and the second phase corresponded to the actions carried out from April 2016 to the end of the appeal.

PHASE 1:

- **% of children under five with acute malnutrition (mid-upper arm circumference- MUAC) less than 2.5%:** The first nutritional screening conducted by GRC volunteers measured children's mid-upper arm circumference and found a prevalence of acute malnutrition of **1.04 per cent**; a total of 485 children between the ages of 6 and 60 months were screened, and the six children suffering from acute malnutrition were referred to the health centre to confirm their nutritional status and receive treatment.
- **95% of children under five suffering from acute malnutrition are referred to health services:** All six children with below normal (12.5 cm) mid-upper arm circumferences were referred to health services. Health personnel confirmed their nutritional status, and given that their condition was moderate and they showed no complications, the children were provided outpatient treatment with INCAPARINA, a recovery formula based on fortified cereal, sugar and oil. Red Cross volunteers and nutritionist conducted home visits to verify adherence to treatment, reinforce the formula's preparation and ensure household hygiene.
- **At the end of the first month of the project, 56 leaders have been trained to identify and refer children under five suffering from acute malnutrition:** The nutritionist hired by the project and branch volunteers trained 121 community leaders in nutritional surveillance; the training session covered topics such as signs and signals of acute malnutrition, mid-upper arm circumference measuring techniques, the vicious circle of malnutrition, exclusive breastfeeding, supplementary feeding and dietary guidelines for Guatemala. These leaders participated in nutritional screening conducted in November 2016.
- **Education sessions and home visits:** Education sessions and supplementary food preparation demonstrations were held for mothers of children between the ages of 6 and 24 months, as well as home visits to improve food consumption practices, especially for children under 2:
 - Educational sessions were delivered to 872 mothers and 41 men.
 - Food preparation demonstration sessions were conducted in groups of 10 to 15 mothers in some of their homes, which were attended by 957 mothers and 38 fathers.
 - The project made 89 home visits to mothers of children under 5 years of age and 37 visits to pregnant women. In the case of children with severe acute malnutrition, they promoted the preparation and administration of the nutritional formula as well as good hygiene practices.



Photo: Guatemalan Red Cross. Complementary food preparation demonstrations - May 2016. Source: GRC

PHASE 2:

- **% of children under five with acute malnutrition (mid-upper arm circumference- MUAC) less than 2.5%:** The second screening was carried out in May 2016, finding two male children and one female child with moderate acute malnutrition; these children were immediately referred to a health centre and follow-up visits show that they now have adequate weight-for-height measurements.
- **At the end of the first month of the project, 56 leaders have been trained to identify and refer children under five suffering from acute malnutrition:** To date, nutritional surveillance knowledge of 118 community leaders and Health Committee members has been strengthened.
- **Educational sessions for mothers:** Training sessions were held with parents to improve child feeding practices; The sessions covered exclusive breastfeeding and complementary feeding, reaching a total of 620 people. In addition, food preparation demonstration sessions were held to strengthen the mothers' knowledge.

Table 4**People trained in food and nutrition**

COMMUNITY	Mothers trained	Health Committee members trained	Community leaders trained	Mothers participating in food demonstrations
Choyomche 1	81	10	0	21

Choyomche 2	129	16	8	35
Choyomche 3	52	6	2	39
Carrizal	152	13	12	16
San Francisco	89	12	5	38
Laguna Seca 1	86	25	9	18
Chiché Health Centre	31	0	0	0
TOTAL	620	82	36	167

Challenges

The greatest challenge reported was implementing the community nutritional surveillance system; Although the GRC trained and equipped community leaders to measure children's mid-upper arm circumference, there is still no official system within the Ministry of Health that includes information collected by the community.

Lessons learned

- Produce materials for thematic training that have cultural relevance (flipcharts, informative materials) and are useful for the implementation of activities.
- The beneficiary selection assessment's results must be validated because while the economic data for some families may show signs of extreme poverty, they might still have children suffering from malnutrition.
- Households headed by women do not always have malnourished children.

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Disaster Response Financial Report

MDRGT009 - Guatemala - Drought

Timeframe: 03 nov 15 to 04 mar 17

Appeal Launch Date: 06 feb 16

Interim Report

Selected Parameters

Reporting Timeframe	2015/11-2017/5	Programme	MDRGT009
Budget Timeframe	2015/11-2017/3	Budget	APPROVED
Split by funding source	Y	Project	*
Subsector:	*		

All figures are in Swiss Francs (CHF)

I. Funding

	Raise humanitarian standards	Grow RC/RC services for vulnerable people	Strengthen RC/RC contribution to development	Heighten influence and support for RC/RC work	Joint working and accountability	TOTAL	Deferred Income
A. Budget		2.037.060				2.037.060	
B. Opening Balance							
Income							
Cash contributions							
<i>American Red Cross</i>		146.696				146.696	
<i>Japanese Red Cross Society</i>		43.830				43.830	
<i>Red Cross of Monaco</i>		16.481				16.481	
<i>The Canadian Red Cross Society (from Canadian Government*)</i>		62.535				62.535	
C1. Cash contributions		269.543				269.543	
Other Income							
<i>DREF Allocations</i>		245.273				245.273	
C4. Other Income		245.273				245.273	
C. Total Income = SUM(C1..C4)		514.816				514.816	
D. Total Funding = B + C		514.816				514.816	

* Funding source data based on information provided by the donor

II. Movement of Funds

	Raise humanitarian standards	Grow RC/RC services for vulnerable people	Strengthen RC/RC contribution to development	Heighten influence and support for RC/RC work	Joint working and accountability	TOTAL	Deferred Income
B. Opening Balance							
C. Income		514.816				514.816	
E. Expenditure		-514.023				-514.023	
F. Closing Balance = (B + C + E)		793				793	

Disaster Response Financial Report

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Budget Timeframe	2015/11-2017/3	Budget	APPROVED
Split by funding source	Y	Project	*
Subsector:	*		

All figures are in Swiss Francs (CHF)

III. Expenditure

Account Groups	Budget	Expenditure					TOTAL	Variance
		Raise humanitarian standards	Grow RC/RC services for vulnerable people	Strengthen RC/RC contribution to development	Heighten influence and support for RC/RC work	Joint working and accountability		
	A					B	A - B	
BUDGET (C)			2.037.060			2.037.060		
Relief items, Construction, Supplies								
Food	681.455		253.194			253.194	428.261	
Seeds & Plants	100.214		21.218			21.218	78.996	
Water, Sanitation & Hygiene	818.748		74.730			74.730	744.018	
Medical & First Aid	802		266			266	536	
Teaching Materials	37.380		4.506			4.506	32.873	
Utensils & Tools	100.214		5.054			5.054	95.160	
Total Relief items, Construction, Sup	1.738.811		358.968			358.968	1.379.843	
Logistics, Transport & Storage								
Transport & Vehicles Costs	12.687		6.087			6.087	6.600	
Logistics Services	10.021						10.021	
Total Logistics, Transport & Storage	22.708		6.087			6.087	16.621	
Personnel								
National Staff	7.006		1.799			1.799	5.207	
National Society Staff	69.533		67.874			67.874	1.659	
Volunteers	18.386		22.098			22.098	-3.712	
Total Personnel	94.926		91.772			91.772	3.154	
Consultants & Professional Fees								
Consultants	7.015						7.015	
Professional Fees			20.430			20.430	-20.430	
Total Consultants & Professional Fees	7.015		20.430			20.430	-13.415	
Workshops & Training								
Workshops & Training	24.653		1.947			1.947	22.706	
Total Workshops & Training	24.653		1.947			1.947	22.706	
General Expenditure								
Travel	4.009		2.580			2.580	1.428	
Information & Public Relations	3.107		4.962			4.962	-1.856	
Office Costs	4.710		884			884	3.826	
Communications	7.516		3.843			3.843	3.673	
Financial Charges	2.505		-13.285			-13.285	15.790	
Shared Office and Services Costs	2.772		2.994			2.994	-222	
Total General Expenditure	24.618		1.979			1.979	22.640	
Indirect Costs								
Programme & Services Support Recover	124.328		31.277			31.277	93.051	
Total Indirect Costs	124.328		31.277			31.277	93.051	
Pledge Specific Costs								
Pledge Earmarking Fee			1.363			1.363	-1.363	
Pledge Reporting Fees			200			200	-200	
Total Pledge Specific Costs			1.563			1.563	-1.563	
TOTAL EXPENDITURE (D)	2.037.060		514.023			514.023	1.523.037	
VARIANCE (C - D)			1.523.037			1.523.037		

Disaster Response Financial Report**MDRGT009 - Guatemala - Drought**

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Reporting Timeframe	2015/11-2017/5	Programme	MDRGT009
Budget Timeframe	2015/11-2017/3	Budget	APPROVED
Split by funding source	Y	Project	*
Subsector:	*		

All figures are in Swiss Francs (CHF)

IV. Breakdown by subsector

Business Line / Sub-sector	Budget	Opening Balance	Income	Funding	Expenditure	Closing Balance	Deferred Income
BL2 - Grow RC/RC services for vulnerable people							
Food security	2.037.060		514.816	514.816	514.023	793	
Subtotal BL2	2.037.060		514.816	514.816	514.023	793	
GRAND TOTAL	2.037.060		514.816	514.816	514.023	793	