

# EARLY ACTION PROTOCOL SUMMARY

Guatemala | Drought

May 2024

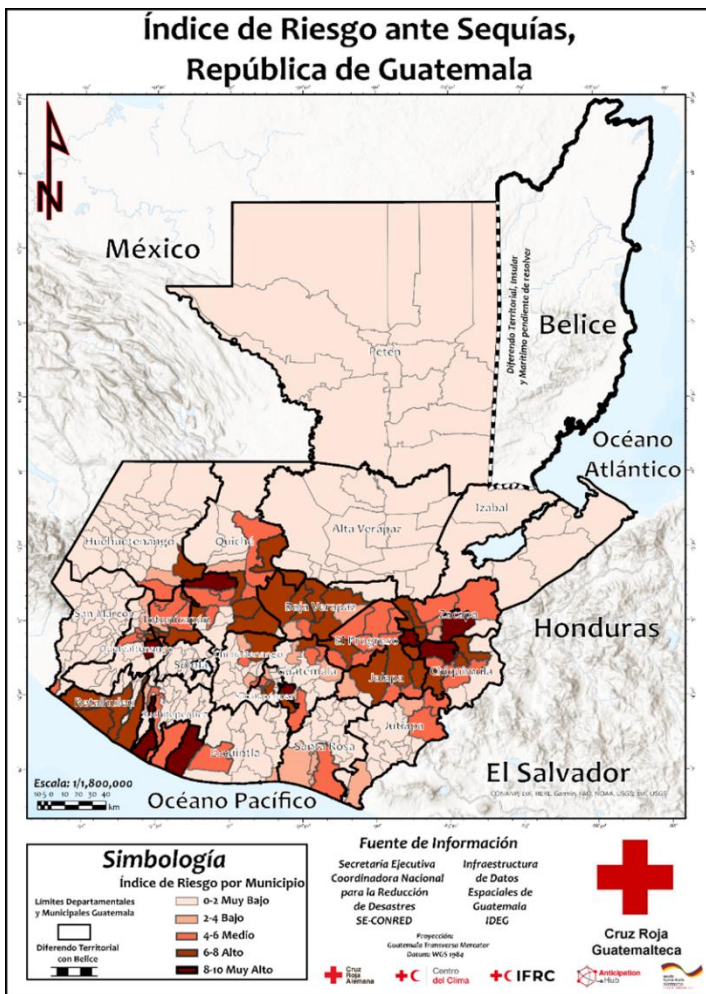


*Climate change impacts on Guatemala's agriculture: Seasonal disparities with droughts during El Niño and flooding in other periods. Source: Prensa Latina.*

EAP №: <b>EAP2023GT03</b>	Early action lead time: <b>2-3 months</b>	Operation №: <b>MDRGT023</b>
EAP approved: <b>14/05/2024</b>	EAP timeframe: <b>5 Years</b>	Operational timeframe: <b>3 Months</b>

**Budget: 546,439 CHF**  
**To assist: 14,000 people**

# SUMMARY OF THE EARLY ACTION PROTOCOL



The IFRC Disaster Response Emergency Fund (DREF) has approved a total of CHF 546,439 for the implementation of the Guatemalan Red Cross – Drought Early Action Plan (EAP). The approved amount consists of an allocation of CHF 250,145 for readiness and prepositioning and CHF 296,295 allocated to implement early actions once the defined triggers are met.

Allocations are made from the Anticipatory Pillar of the DREF, under the DREF appeal code MDR00001. Unearmarked contributions to the DREF are encouraged to guarantee enough funding is available for the Early Action Protocols being developed.

The Republic of Guatemala is exposed to several threats, including floods, slope movements, volcanic ash, and meteorological drought, which is one of the most devastating threats, occurs with greater regularity, and in extreme events with a frequency of less than 10 years. The latter is due to recurrent problems of dry conditions resulting from low rainfall, especially in the Guatemalan dry corridor, generating impacts on health, food security, livelihoods, economic security (loss of day jobs in rural areas), water and sanitation.

Historically, the El Niño phase of the ENSO phenomenon in Guatemala has been characterized by a decrease in precipitation accumulation, an increase in the duration and intensity of the heat wave, and an increase in the country's temperature. The regions most affected by the El Niño phase are the West, Central Highlands, Eastern Valleys, Boca costa, Pacific and North. According to the feasibility study of Forecast-Based Financing (FbF) in Guatemala, it was identified that meteorological drought may be more intense in certain parts of the Guatemalan dry corridor due to inter-annual variations.

In this sense, the Guatemalan Red Cross EAP is a tool to guide the timely and effective implementation of early actions based on specific weather forecasts that predict events that, if they materialize and appropriate actions are not in place, have a high probability of generating a humanitarian crisis. These crises could be avoided or minimized through the joint and timely action of the Government, communities at risk, stakeholders, and the National Society.

This EAP focuses on extreme meteorological drought as one of the most latent and frequent threats in the Central American Region (Regional Dry Corridor), which therefore affects the country and is activated by a forecast provided by the National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH, for its acronym in Spanish) with a lead time of at least 3 months. This EAP

explains the rationale behind the prioritization of early actions and provides step-by-step instructions for the selected actions to be implemented in a particular manner and order upon activation.

The EAP does not operate in isolation. It is linked to specific national Disaster Risk Reduction and Management plans, as well as existing government and National Society plans and policies that, in terms of food security, are linked to drought. It ensures that early actions that are planned to be implemented in the window of time between the forecast is issued, and the potential disaster event are carried out in a timely and successful manner.

## OPERATIONAL STRATEGY

### 1. Who will implement the EAP - The National Society

The Early Action Plan (EAP) for drought has been designed to be implemented by the Guatemalan Red Cross. Each of the actors involved in this EAP has a fundamental role during the coordination and activation of the Anticipatory Action mechanism. A list of the institutions and their responsibilities is provided below:

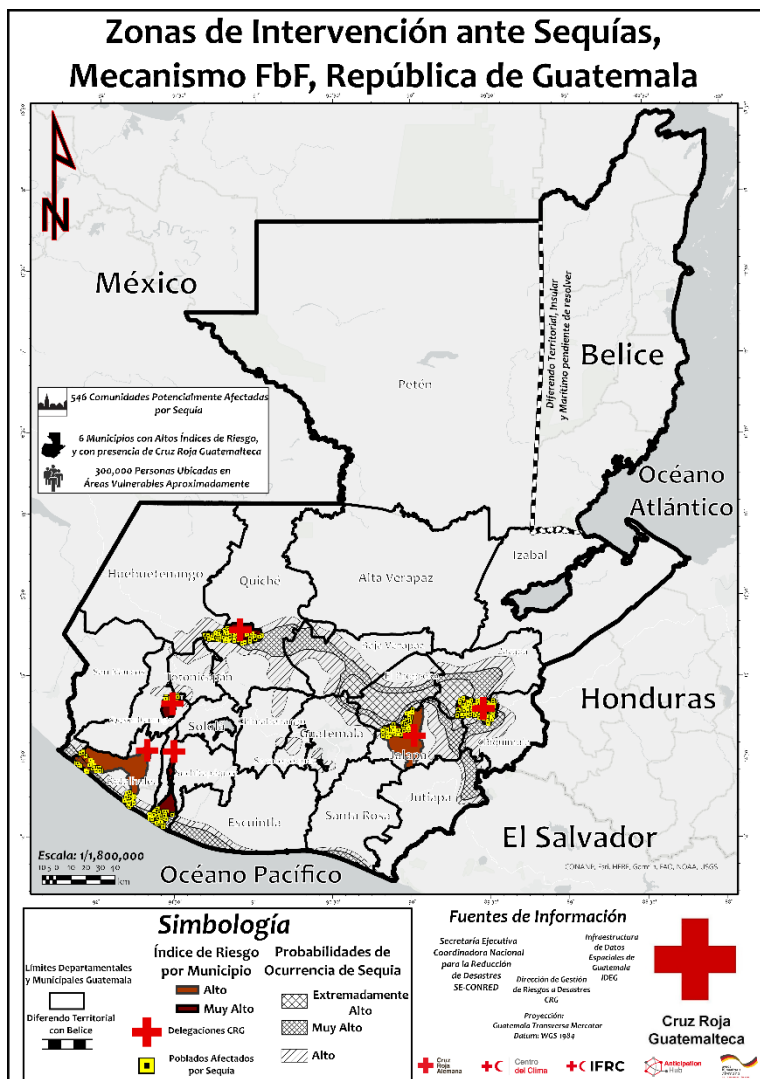
Name of organization	Description	Role within EAP	Type of stakeholder
National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH, for its acronym in Spanish)	Is a highly qualified technical-scientific institution that contributes to the optimization of productive sector activities associated with atmospheric, geophysical, and hydrological sciences, coordinating services with the private sector, and acting as a technical advisor to the government in case of disasters.	It is the state agency that issues the daily forecasts and predictions received by the population to inform the situation of the country in the event of possible events and geographical areas exposed to them. Its role is to prevent disasters caused by the variability of phenomena that could provoke emergency situations in the country.	National
Ministry of Agriculture, Livestock and Food (MAGA, for its acronym in Spanish)	It is the governing body of the agricultural sector in the country and is responsible for promoting actions to foster rural development and, therefore, improve the living conditions of the population engaged in agricultural activities.	Support in the process of review, analysis and validation of thresholds and triggers. Recommendations about intervention areas.	National and local
Secretariat for Food and Nutritional Security (SESAN, for its acronym in Spanish)	Public institution in charge of the National Food Security Policy (PNSAN, for its acronym in Spanish), whose link with the National Program to Combat Land Degradation, Desertification and Drought (PROANDYS, for its acronym in Spanish) corresponds to its participation in mitigating the effects of droughts on	Support for context and risk analysis. As well as recommendations related to actions and areas of intervention.	National and local

Name of organization	Description	Role within EAP	Type of stakeholder
	vulnerable populations and responding to emergencies also triggered by droughts.		
Guatemalan Red Cross	It is a civil society organization that plays an important role in supporting the activities to be developed in the event of a drought type threat, to help the survival of the population with a high probability of being affected by a disaster.	When the indicated thresholds are exceeded, the Guatemalan Red Cross would expedite the processes that would allow the support of a DREF to be carried out.	National

Table 1. Institutions at regional, national, and local levels linked to the National Society for the development and/or activation of the EAP.

## 2. How the EAP will be activated – The Trigger

The risk index helps to prioritize municipalities for intervention based on the spatial distribution of the seasonal drought forecast. Three dimensions of risk are considered for its calculation: 1) Exposure 2) Vulnerability and 3) Lack of Response Capacity. All variables were estimated at the municipal level since this is the administrative level responsible for local risk management.



**Prioritized impact:** The rainfall deficit that occurs with the impact of the El Niño phenomenon has a direct impact on the following areas:

- Food and nutritional insecurity, due to the decrease in subsistence agricultural production and the increase in prices of basic food basket inputs.
- Increase in morbidities related to the limited access to safe water.
- Migration of population in search of livelihoods.

**Trigger Model:** Triggers are based on monitoring El Niño and precipitation weather conditions at least three months in advance and defining a “stop mechanism” that allows actions to be halted if an updated forecast so establishes.

The activation model is summarized in the following diagram:

Map 2. Drought intervention zone. Source: GRC.

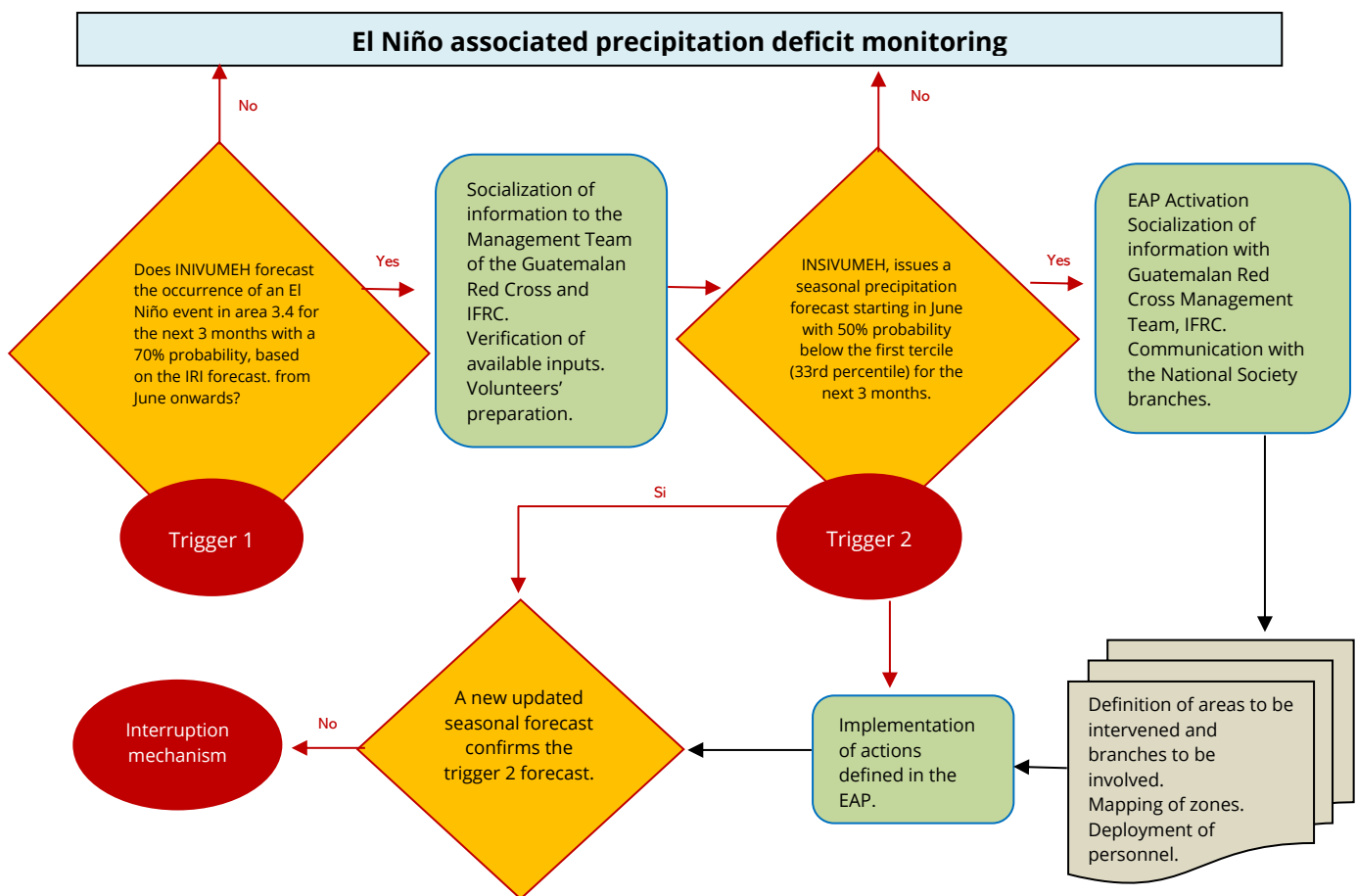


Diagram 1. Human Mobility EAP Activation Model.

### Declaration of activation:

This Early Action Protocol (EAP) has two triggers, as presented below:

<b>Trigger 1</b>	— When the National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH) issues an “El Niño” warning in area 3.4, for the next 3 months with a 70% probability based on the IRI forecast as of June.
<b>Trigger 2</b>	— When INSIVUMEH issues a bulletin or seasonal precipitation forecast from the month of June with 50% probability below the first tercile (33rd percentile) for the next 3 months.

Table 2. Triggers for EAP.

**Forecast selection:** In Guatemala, INSIVUMEH is the official institution in charge of issuing forecasts. The El Niño ENSO forecast was selected due to the proven close relationship of its impact on precipitation decreases in the Guatemalan dry corridor.

For the calculation of ENSO forecast skill, the Brier Skill Scores (BSS) metric was used to measure the relative skill of forecasts compared to climatology. Where: BSS = 1 the forecast has perfect skill compared to climatology; BSS = 0 the forecast has no skill compared to climatology.

A summary of the reference forecast skill is shown in the following table:

Forecast	Source	Lead Time	Forecast skill
CPC/IRI El Niño Forecast	NOAA Climate Prediction Center	3 months	Brier Skill Score = 0.6 3 months lead time False Alarms: 0.35
Seasonal precipitation forecast	INSIVUMEH	3 months	70-90% ROC (dry corridor) False Alarms: 0.35

Table 3. Forecasting Menu.

**Definition and justification of the level of impact:** To activate the Early Action Plan (EAP), two criteria must be met. First, the presence of an ENSO event, which historically correlates with a precipitation deficit in the Guatemalan Dry Corridor. Second, a precipitation deficit falling below the 33rd percentile. As shown in Figure 1, both criteria were met during the years (1993, 1997-98, 2002, 2012, 2014, and 2019), correlating with the severe drought impacts detailed in Table 1.

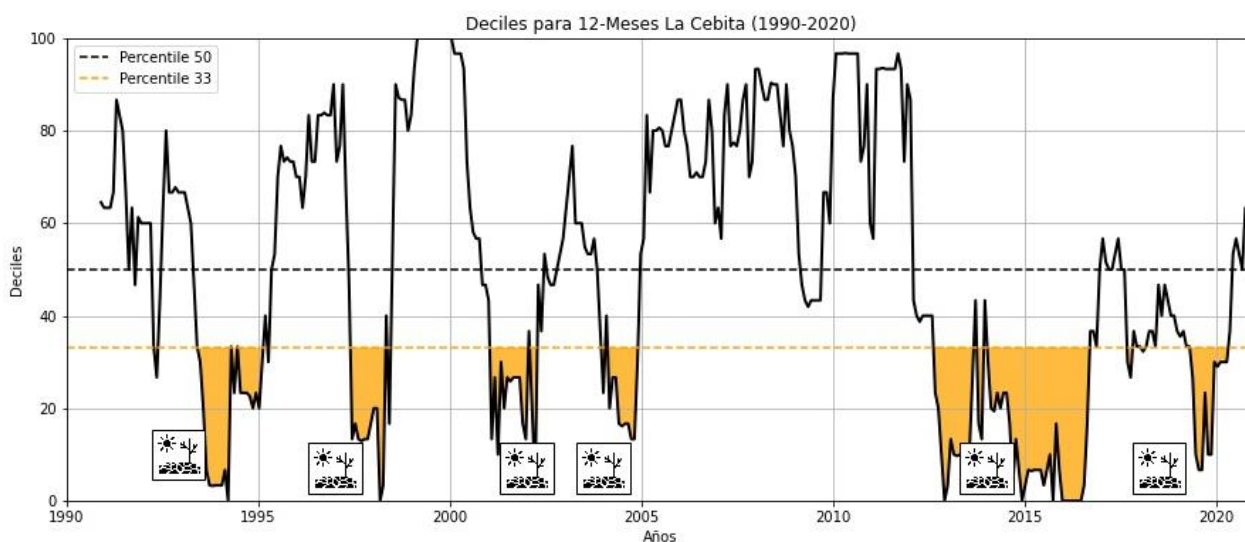


Figure 1. 12-month deciles.

**Identification of the intervention zone:** Through the proposed methodology, the municipalities with the greatest risk of meteorological drought have been identified, which are: Quetzaltenango, Quetzaltenango; Chiquimula, Chiquimula; Jalapa, Jalapa; Sacapulas, Quiché, Retalhuleu, Retalhuleu and San Lorenzo, Suchitepéquez.

Intervention in these municipalities is determined by the presence of Guatemalan Red Cross branches, access, and communication/coordination with local authorities. Likewise, the definition of these specific zones is a process of analysis and consensus with the governing body and local coordination platforms such as the Departmental and Municipal Emergency Operations Center (EOC), the Municipal Coordinator for Disaster Reduction (COMRED), the Municipal Commission for Food and Nutritional Security (COMUSAN), among others.

### 3. How the EAP will reduce the impact on the population – The Early Actions

Droughts often turn into humanitarian disasters when water scarcity is superimposed with low response capacity and/or combined with other vulnerabilities. Livelihood resilience to shocks is also a



function of socio-economic conditions, dependence on specific climatic conditions, the possibility of diversification, available resources, social cohesion and capital, political stability among others.

Thus, to avoid worsening humanitarian indicators during droughts, programs should emphasize the resilience of livelihoods, their ability to respond to shocks and promote positive coping strategies, which may include a discussion on how to shift to less sensitive income-generating activities.


In compliance with the auxiliary role of the public authorities, the Guatemalan Red Cross provides humanitarian attention through the timely and efficient application of integrated response procedures framed through four main sectors: 1) First response; 2) Health; 3) Attention to the population; and 4) Logistics applied to the attention of adverse events.

According to the identified impacts of the drought in Guatemala, some areas of action in which the Guatemalan Red Cross can act are identified. **The selected actions were proposed through a process of analysis of secondary information, consultations with different sectors of the National Society** (disaster risk management directorate, health directorate, administrative and financial area, delegations, disaster coordinators), **field visits to communities**, especially through the collection of information through the process of Analysis of Vulnerabilities and Capacities (AVC) of the Drought project in the department of Chiquimula, **establishment of information exchange with lead institutions**, especially with the Ministry of Agriculture, Livestock and Food (MAGA) and the National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH).


## PLANNED OPERATIONS

 <b>Multi-purpose Cash</b>	Female:	<b>3,966</b>	<b>401,722 CHF</b>
	Male:	<b>3,734</b>	AP Code: <b>081</b>
<b>Indicator:</b>	7,700 people reached with multi-purpose cash in advance of a hazard		
<b>Readiness Activities</b>	<ol style="list-style-type: none"> <li>1. Hiring of Anticipatory Actions Coordinator.</li> <li>2. Hiring of Multipurpose Transfer Program (MTP) coordinator.</li> <li>3. Coverage of MTP financial costs (shipping and banking costs).</li> <li>4. Coordination trips with key stakeholders.</li> </ol>		
<b>Prepositioning Activities:</b>	<ol style="list-style-type: none"> <li>1. Preparation materials for distribution and delivery.</li> </ol>		
<b>Priority Early Actions:</b>	<ol style="list-style-type: none"> <li>1. Registration and/or validation of families to receive MTP support.</li> <li>2. MTP distribution.</li> <li>3. Cost of assigning codes and/or cards.</li> <li>4. Per diem (food and mobilization) for staff and volunteers for MTP distribution.</li> <li>5. Exit and post-distribution survey (1 to 3 months later).</li> </ol>		
 <b>Water, Sanitation and Hygiene</b>	Female:	<b>1,803</b>	<b>27,602 CHF</b>
	Male:	<b>1,697</b>	AP Code: <b>110, 111</b>


<b>Indicator:</b>	3,500 people reached with WASH interventions in advance of a hazard
<b>Readiness Activities:</b>	1. None.
<b>Prepositioning Activities:</b>	<ol style="list-style-type: none"> <li>1. Purchase and pre-position water storage tanks and accessories.</li> <li>2. Purchase and pre-position tools and equipment for water system restoration.</li> <li>3. Purchase and pre-position water filters.</li> </ol>
<b>Priority Early Actions:</b>	<ol style="list-style-type: none"> <li>1. Lodging for staff and volunteers for distribution.</li> <li>2. Per diem (food and mobilization) for staff and volunteers for distribution.</li> </ol>

	<b>Risk Reduction, climate adaptation and recovery</b>	Female:	<b>7,210</b>	<b>60,052 CHF</b>  AP Code: <b>101, 103, 105,106</b>
		Male:	<b>6,790</b>	
<b>Indicator:</b>	14,000 people reached with risk reduction and/or climate adaptation interventions in advance of a hazard			
<b>Readiness Activities:</b>	<ol style="list-style-type: none"> <li>1. Simulation to update management and procedures.</li> <li>2. Socialization of the EAP among the identified communities, with leaders (COMRED, COLRED).</li> <li>3. GIS technical support for data analysis, generation and updating of information.</li> <li>4. Development and printing of updated maps.</li> <li>5. Printed material for EAP dissemination.</li> <li>6. Updating of data on target people (community census).</li> <li>7. Printed material for disaster risk reduction (DRR) training.</li> </ol>			
<b>Prepositioning Activities:</b>	1. None.			
<b>Priority Early Actions:</b>	1. Dissemination of audiovisual material in the media and social networks.			

## Enabling approaches

	<b>Secretariat Services</b>			<b>46,662 CHF</b>
				AP Code: <b>122</b>
<b>Readiness Activities:</b>	<ol style="list-style-type: none"> <li>1. Monitoring visits.</li> <li>2. Bank charges.</li> <li>3. Translation costs.</li> </ol>			

	<ol style="list-style-type: none"> <li>4. Salary for a PMER Officer.</li> <li>5. Salary for a Finance Officer.</li> </ol>
<b>Prepositioning Activities:</b>	<ol style="list-style-type: none"> <li>1. None.</li> </ol>
<b>Priority Early Actions:</b>	<ol style="list-style-type: none"> <li>1. Activation support visits.</li> <li>2. Banking costs.</li> </ol>

 <b>National Society Strengthening</b>	Female:	<b>20</b>	<b>10,401 CHF</b>
	Male:	<b>30</b>	
<b>Readiness Activities:</b>	<ol style="list-style-type: none"> <li>1. Implementation of webinars on drought.</li> <li>2. Purchase of office supplies.</li> </ol>		
<b>Prepositioning activities:</b>	<ol style="list-style-type: none"> <li>1. None.</li> </ol>		
<b>Priority Early Actions:</b>	<ol style="list-style-type: none"> <li>1. Communication (telephone, internet, etc.)</li> <li>2. Follow-up visits to activation activities.</li> <li>3. Lessons learned workshop.</li> <li>4. Insurance for Volunteers.</li> </ol>		



## Early Action Protocol Summary

EAP2023GT03 - "Guatemalan Red Cross"  
Drought

<u>Operating Budget</u>	Readiness	Pre-Pos Stock	Early Action	TOTAL
<b>Planned Operations</b>	<b>177,766</b>	<b>25,389</b>	<b>286,222</b>	<b>489,377</b>
Shelter and Basic Household Items	0	0	0	0
Livelihoods	0	0	0	0
Multi-purpose Cash	121,402	246	280,074	401,722
Health	0	0	0	0
Water, Sanitation & Hygiene	0	25,143	2,459	27,602
Protection, Gender and Inclusion	0	0	0	0
Education	0	0	0	0
Migration	0	0	0	0
Risk Red., Climate Adapt. and Recovery	56,364	0	3,688	60,052
Community Engagement and Accountability	0	0	0	0
Environmental Sustainability	0	0	0	0
<b>Enabling Approaches</b>	<b>46,989</b>	<b>0</b>	<b>10,074</b>	<b>57,063</b>
Coordination and Partnerships	0	0	0	0
Secretariat Services	43,805	0	2,857	46,662
National Society Strengthening	3,184	0	7,217	10,401
<b>TOTAL BUDGET</b>	<b>224,756</b>	<b>25,389</b>	<b>296,295</b>	<b>546,439</b>

*all amounts in Swiss Francs (CHF)*

## Contact information.

For further information, specifically related to this operation please contact:

### In the Guatemalan Red Cross

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