

EARLY ACTION PROTOCOL SUMMARY

El Salvador | Drought

November 2024

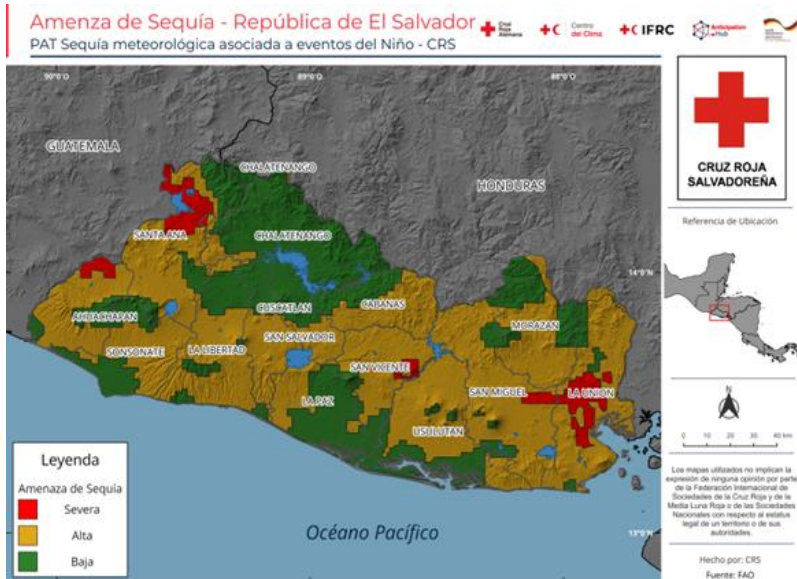


El Salvador is facing periods of drought that have impacted agricultural production due to the El Niño phenomenon. Source: La Prensa Gráfica.

EAP №: EAP2024SV01	Early action lead time: 2-3 months	Operation №: MDRSV017
EAP approved: 13/11/2024	EAP timeframe: 5 Years	Operational timeframe: 3 Months

Budget: 544,464 CHF
To assist: 10,000 people

SUMMARY OF THE EARLY ACTION PROTOCOL



Map 1. Drought threat in El Salvador. Source: FAO

The IFRC Disaster Response Emergency Fund (DREF) has approved a total of CHF 544,464 for the implementation of the Salvadorean Red Cross Society - Drought EAP. The approved amount consists of an allocation of CHF 306,904 for readiness and prepositioning and CHF 237,560 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.

Drought is the primary hazard causing the highest recorded economic losses in El Salvador, accounting for 72.49% of total recorded losses. Flooding ranks second, responsible for 25.43% of the economic losses. This context makes drought a priority for early action planning.

The Early Action Protocol (EAP) for meteorological droughts associated with the El Niño phenomenon, developed by the Salvadorean Red Cross (SRC), is a tool designed to guide the timely and effective implementation of early actions based on meteorological forecasts that predict extreme drought events. These events, if realized without adequate preparation, pose a high probability of triggering a humanitarian crisis. Such a crisis can be avoided or, at the very least, minimized through coordinated and anticipatory action by the Government of El Salvador, at-risk communities, stakeholders, and the SRC.

This EAP has been developed with active participation from the SRC and its subsidiary organizations, in close collaboration with the Directorate General for Threats and Natural Resources Observation (DGOA) and the Directorate General of Civil Protection. Each of these entities plays a fundamental role in preparing and activating this forecast-based early action mechanism.

The plan activates based on a forecast issued by the DGOA, with an implementation window of three months and ongoing monitoring. Its primary objective is to reduce vulnerability and mitigate the impacts of drought on the most exposed population sectors. The EAP aims to proactively address major drought impacts, focusing specifically on safeguarding livelihoods and sanitation services in vulnerable communities.

The EAP does not operate in isolation; it is closely linked with existing Disaster Risk Management and Reduction and Contingency Plans. This linkage ensures that early actions intended to be executed between the time the forecast is issued, and the potential disaster event are implemented promptly and effectively.

It is essential to note that, while the EAP is an integral effort to reduce the impacts of an extreme drought, it does not preclude the potential need for additional response actions should the severity and duration of the event exceed the initial early response capacity in the affected areas.

OPERATIONAL STRATEGY

1. Who will implement the EAP - The National Society

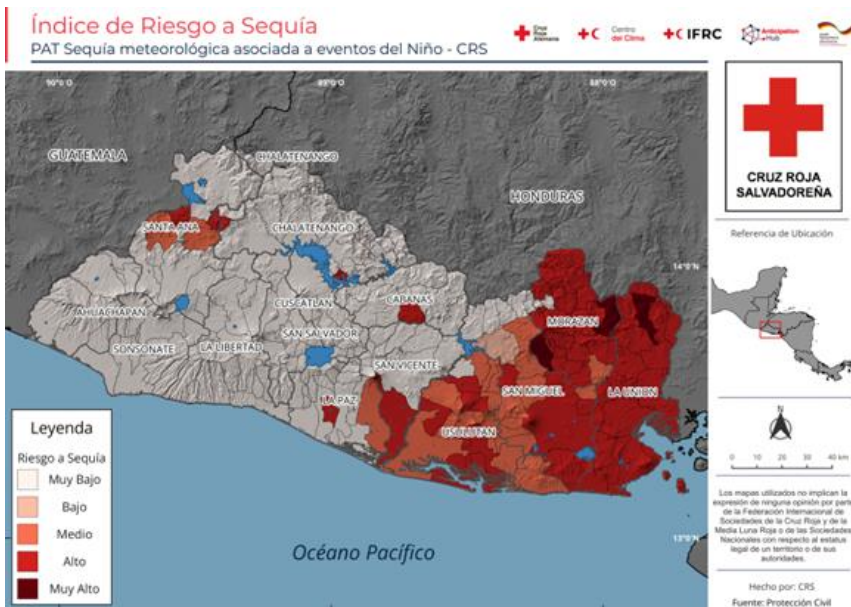
The Early Action Plan (EAP) for drought has been designed to be implemented by the Salvadorean Red Cross. Each of the actors involved in this EAP has a fundamental role during the coordination and activation of the Anticipatory Action mechanism. A list of the institutions and their responsibilities is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

Name of organization	Description	Role within EAP	Type of stakeholder
The General Directorate of Civil Protection (Civil Protection)	This is a public service responsible for effectively preventing, mitigating, and responding to natural and man-made disasters in the country. In the event of a disaster, Civil Protection deploys services aimed at ensuring the lives and physical integrity of individuals, as well as the safety of private and public assets.	The planning of the EAP has been closely supported by Civil Protection, which has provided valuable information for its design and participated in validating its content. The Salvadorean Red Cross is part of Civil Protection and thus holds a key role in the coordination process in the event of an activation.	National
General Directorate of Threat Observatory and Natural Resources (DGOA)	Is the State's relevant technical and scientific body, generating and providing basic information, studies, and research on the physical environment to the entire society, contributing to reducing disaster vulnerability.	The DGOA would be responsible for issuing forecasts and/or predictions of indicator variations (such as the ENSO Index) to determine the optimal moment for action, identifying areas most exposed to risk. This information should be sent in advance to Civil Protection.	National
Ministry of Agriculture and Livestock (MAG)	Is the governing body in the country responsible for formulating and implementing policies that promote sustainable development in agriculture, livestock, forestry, fishing, and aquaculture, as well as food security and sovereignty.	Support in implementing the EAP, particularly in raising awareness about actions to mitigate crop loss due to drought threats.	National
Salvadorean Red Cross (SRC)	Plays a crucial role in supporting activities designed to address drought threats, aiding the survival of populations with a high likelihood of being affected by a disaster.	Once the specified thresholds are exceeded, CRS will be responsible for implementing the anticipatory actions, as well as for their monitoring and subsequent evaluation. All readiness and pre-positioning actions are managed and directed by CRS.	National

Name of organization	Description	Role within EAP	Type of stakeholder
University of El Salvador (UES)	Specializes in various fields and is a leading institution in disaster risk studies and territorial planning in El Salvador.	It provides academic and technical collaboration on risk impacts and anticipatory tools for meteorological droughts and floods associated with tropical storms.	National
The Food and Agriculture Organization of the United Nations (FAO)	Is a UN agency aimed at ending world hunger and promoting the development of agriculture, fisheries, and forestry.	The organization collaborates on drought-related issues with the DGOA, complementing efforts and creating synergy with the Salvadorean Red Cross to carry out actions in the dry regions of El Salvador.	National
The United Nations World Food Programme (WFP)	Is a UN agency committed to supporting the most vulnerable populations and mobilizing resources through international cooperation.	WFP works in coordination with the Ministry of Governance. Its role is to provide food assistance to vulnerable groups within society whose livelihoods have been affected by environmental, economic, or social challenges.	National

Table 1. Institutions at national level linked to the National Society for the development and/or activation of the EAP.

2. How the EAP will be activated – The Trigger



Map 2. Drought Risk Index in El Salvador. Source: Civil Protection

Map 2 shows the municipalities in El Salvador at the highest risk of drought. This indicator reflects the number of people (equivalent inhabitants) who could be affected by drought in the analyzed area. The map indicates that the population most vulnerable to drought impacts is primarily located in the eastern region of the country, with risk levels ranging from medium to very high, encompassing the departments of Usulután, San Miguel, Morazán, and La Unión. Additionally, in the areas adjacent to eastern El Salvador, affected municipalities are also found in the nearby departments of

La Paz, San Vicente, and Cabañas. In the departments of Santa Ana and Chalatenango, there are also municipalities at risk, with populations facing medium to high levels of exposure to drought events.

Prioritized Impact: The municipal risk analysis concludes that drought is one of the most significant threats to rural populations in El Salvador, directly affecting livelihoods, health, and food security. Data collection revealed that 95% of the population in the intervention area has been impacted by drought, with significant effects recorded in the years 2017, 2018, 2020, and 2022.

Based on this result, the following prioritized impacts have been identified:

- Small-scale farming families experience losses in subsistence agriculture and livestock, increasing the risk of food insecurity.
- Highly vulnerable families reduce their basic food consumption due to the deterioration of their livelihoods and rising prices of staple goods in local markets.
- At-risk families face limited access to water for human consumption, due to scarcity and increased purchase costs.

Trigger Model: The activation triggers were developed and agreed upon with the technical working team, based on monitoring weather conditions three months in advance and establishing a control mechanism that will be evaluated three months after the initiation of the Early Action Protocol (EAP). The activation model will follow the diagram outlined below:

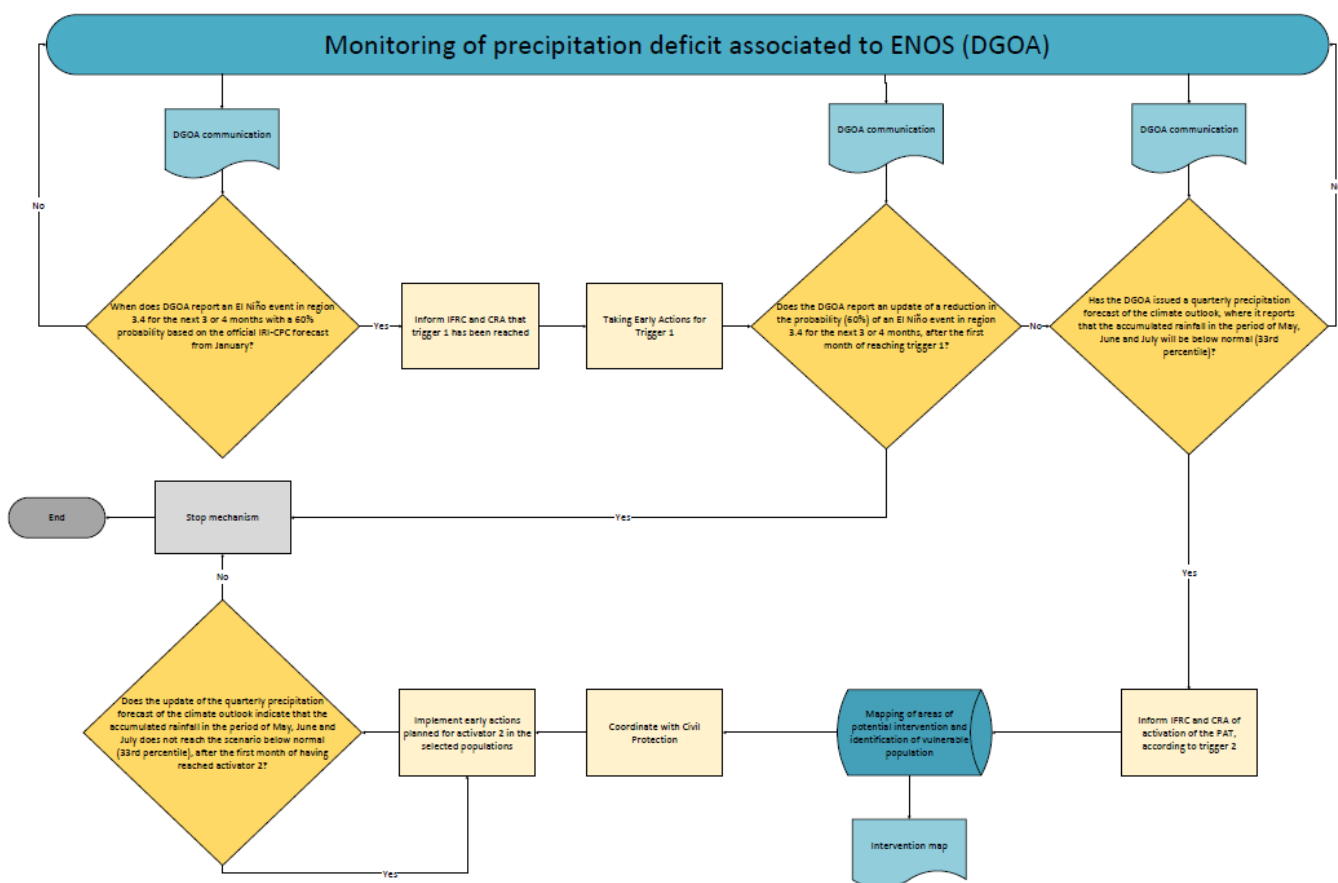


Diagram 1. Drought EAP Activation Model.

Declaration of activation:

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

Trigger 1	— When the General Directorate of Threat Observatory and Natural Resources (DGOA) communicates an El Niño event in region 3.4 for the upcoming 3 or 4 months with a 60% probability, based on the official IRI-CPC forecast until April of year (0) or even earlier in year (-1).
Trigger 2	— When the DGOA has issued a quarterly precipitation forecast indicating that accumulated rainfall during May, June, and July will be below normal (33rd percentile).

Table 2. Triggers for EAP.

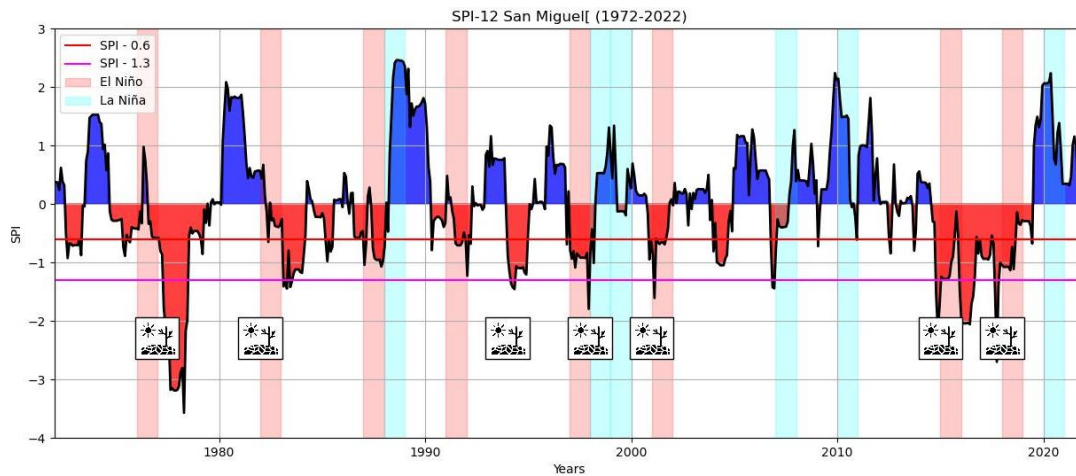
Forecast selection: In El Salvador, the General Directorate of Threat Observatory and Natural Resources (DGOA) is the official entity responsible for issuing forecasts and informing about extreme meteorological phenomena; therefore, it will serve as the official entity within this EAP. Forecasts are disseminated by the DGOA and the General Directorate of Civil Protection (Civil Protection).

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

Forecast	Source	Lead Time	Forecast skill
El Niño Forecast	NMME CFSV2	3 months	POD: 0.55 FAR: 0.1
Climate Outlook Forecast	CRRH	3 months	Data unavailable Not verified
Experimental Seasonal Forecast	University of Santa Barbara	9 months	Data unavailable Not verified
Seasonal Rainfall Forecast - Precipitation Deficit	DGOA	3 months	FAR = 0.30 3-month lead time (Dry Corridor)

Table 3. Forecasting Menu.

Definition and justification of the level of impact: Two of the criteria to activate this Early Action Plan (EAP) include a forecasted and declared ENSO event, which historically correlates with precipitation deficits in the Salvadorean Dry Corridor. The second trigger is a severe precipitation deficit associated with the 10th percentile, as illustrated in Graph 1. Both criteria manifest and are connected to severe drought impacts during years (1977-78, 1982-83, 1994-95, 1997-98, 2002, 2014-2016). Over the past 50 years, these events have significantly impacted the livelihoods of populations in the Dry Corridor, with approximately 8 severe drought events recorded between 1972 and 2022. This suggests that, on average, a severe drought occurs approximately every 7 years (return period).

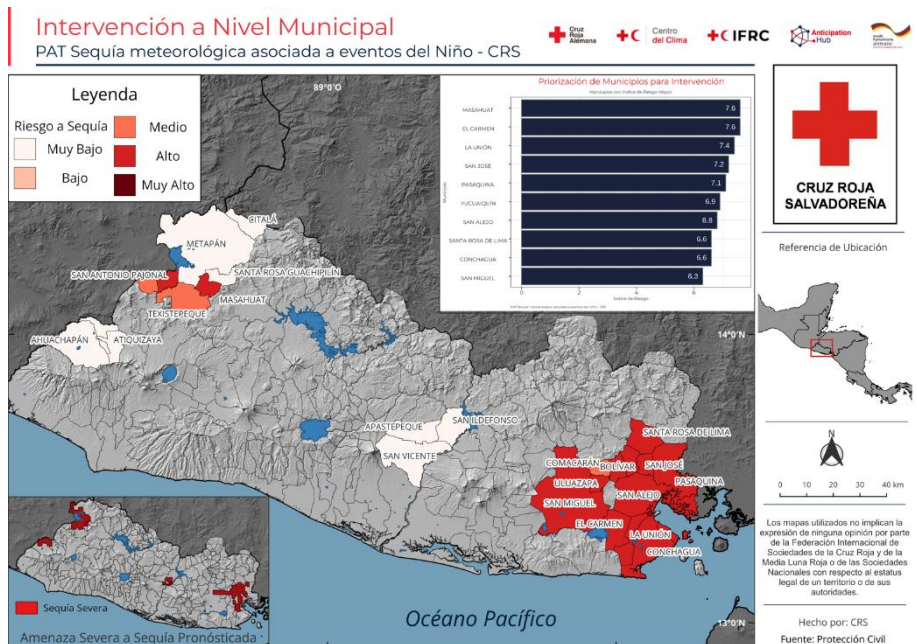


Graph 1. Years of Severe Drought and its Relationship with ENSO.

Identification of the intervention zone: The risk index is calculated using the INFORM methodology from the Disaster Risk Management Knowledge Center.

The developed risk model provides a historical snapshot of municipalities most at risk from drought. However, the final selection of municipalities for intervention is determined by overlaying the seasonal forecast output layer (activator 2) onto the model, resulting in a drought risk index categorized as low, medium, or high. This potential intervention area, focused on high-risk municipalities, is refined in coordination with the Government of El Salvador through Civil Protection.

Following the prioritization of municipalities with the highest risk index, a census will be conducted to identify the target population based on the criteria described in section 6.3 (Target Population Selection). The specific selection within each municipality will be validated through context analysis and on-site observation by local branch offices. Additionally, municipalities already receiving interventions from other entities associated with Civil Protection will be given lower priority.



Map 3. Municipal-Level Intervention - Example of Identification of Intervention Zones. Source: Civil Protection

Map 3 shows the cartography for selecting municipalities affected by drought, based on the threat distribution forecast.

In this hypothetical scenario, the selection of municipalities is limited to those with a high drought threat, resulting in the prioritization of Mazahuat, leading with a Risk Index of 7.6, and El Carmen, in second place with a Risk Index of 7.6.


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

The process of prioritizing actions began with a feasibility analysis for implementing the anticipatory action mechanism in the Salvadorean Red Cross (CRS). This study involved key areas of risk management within the National Society and stakeholders such as Civil Protection, the Food and Agriculture Organization of the United Nations (FAO), and the Ministry of Agriculture and Livestock (MAG), among others. This collaborative effort helped identify high-impact threats (including droughts), relevant effects on affected populations, response capacities, and an initial draft of proposed actions. Actions were grouped into three focus areas: Livelihoods and Basic Needs, Multipurpose Cash Transfers, and WaSH. Later, in a collaborative risk analysis with the General Directorate of the Observatory of Threats (DGOA) and Civil Protection, vulnerabilities were more precisely identified and based on the final selection of forecasts and the time available to execute the actions, proposed actions were defined and validated according to the National Society's capacity and Civil Protection's priorities for impact mitigation.


Finally, ten anticipatory actions were selected, including four preparatory and formative actions and six implementable actions within the areas of WaSH, Livelihoods, and Basic Needs. Cash transfers will be scheduled with specific purposes: conditional transfers for the purchase of agricultural kits, made according to the planting calendar to support short-cycle, drought-resistant crops (validated by MAG) that can be harvested and stored within the forecast window. Additionally, an unconditional transfer will be made to cover basic needs for highly vulnerable families, reaching a total of 1,200 households without duplication of assistance.

Regarding WaSH actions, the National Society National Intervention Teams (ENI) will map and evaluate water sources in the intervention area and conduct an awareness campaign on water conservation and sanitation measures. After the activation criteria are met, storage tanks will be installed in critical community spaces (such as health centers and schools), and safe water will be treated and distributed from identified capture points to households and/or distribution points. The water storage in these community spaces aims to ensure a continuous supply and mitigate the impact of water cuts on the health of users. At the household level, water purification and hygiene kits will be distributed to the same group receiving the unconditional (multipurpose) transfer, enabling them to use treated water even if sourced from at-risk points.

PLANNED OPERATIONS

 Livelihoods	Female:	1,400	201,979 CHF
	Male:	1,600	AP Code: 007
Indicator:	3,000 people reached with livelihoods interventions in advance of a hazard.		
Readiness Activities	<ol style="list-style-type: none"> 1. Prepare a sensitization workshop on adaptive practices for households engaged in subsistence agro-livelihoods (in partnership with MAG, no cost incurred). 		

	<ol style="list-style-type: none"> Identify and sign agreements with providers for delivering cash transfers for basic needs and subsistence agriculture (includes site visits and supplier surveys). Conduct market and price monitoring (basic goods and agricultural inputs). Carry out drills or simulations.
Prepositioning Activities	<ol style="list-style-type: none"> Development of educational materials on adaptive practices for subsistence farming households. Creation of a guidance booklet on essential spending for basic needs (includes design and printing). Management of 500 unconditional cash transfers linked to a training session on adaptive practices for subsistence farming households (no-cost activity). Management of 100 conditional cash transfers linked to a training session on adaptive practices for households engaged in subsistence livestock activities.
Priority Early Actions:	<ol style="list-style-type: none"> Awareness workshop on adaptive practices for households with subsistence agro-livelihoods. Trigger 2. Dissemination of drought alerts to the at-risk population in high-risk municipalities. Trigger 1 (no funding required). Unconditional cash transfers tied to a training session on adaptive practices for subsistence farming households. Trigger 2. Unrestricted cash transfers conditioned on a training session on adaptive practices for households with subsistence livestock livelihoods. Trigger 2.


 Multi-purpose Cash	Female:	1,000	126,836 CHF
	Male:	2,000	AP Code: 081
Indicator:	3,000 people reached with multi-purpose cash in advance of a hazard.		
Readiness Activities	<ol style="list-style-type: none"> Training and refresher sessions for volunteers in Cash Transfer Programming (CTP) in years 1 and 4, including workshops and sessions, with 20 participants per year. Update on the CTP feasibility study (survey, travel allowances, and transportation), given that early actions will be implemented in year 1, with follow-up actions scheduled for years 3 and 5. Simulation or drill exercise. 		
Prepositioning Activities:	1. Management of 600 unconditional cash transfers for basic needs (no additional funding required as all activities are conducted from the National Society headquarter).		
Priority Early Actions:	<ol style="list-style-type: none"> Awareness workshops on the use of cash transfers (activation). Trigger 2. Distribution of 600 unconditional cash transfers for basic needs (per diems, fuel, and vehicle rental). Trigger 2. 		

3. Cash transfer satisfaction survey. Trigger 2.

	Water, Sanitation and Hygiene	Female:	4,000	121,053 CHF
		Male:	6,000	AP Code: 110, 111
Indicator:	10,000 people reached with WASH interventions in advance of a hazard.			
Readiness Activities:	<ol style="list-style-type: none"> 4. Technical training for ENI WaSH personnel on field assessments for water quality and the appropriate use of water purification plants. 5. Preparation of a workshop on water usage and hygiene awareness, including information on the prevention of gastrointestinal diseases. 6. Development of a water and hygiene promotion awareness campaign, featuring key messages on dehydration treatment and heatstroke prevention. 7. Procurement management for community water tanks and storage accessories (no additional cost incurred). 8. Market and price monitoring for jerricans, filters, and chlorine (no additional cost incurred). 9. Preparation and maintenance (preventive and corrective) of water purification plants, including supply management for plant-based water treatment. 10. Preparation of water tankers for safe water transportation to communities, including preventive and corrective maintenance. 11. Coordination with the Ministry of Health (MINSAL) for hygiene promotion activities and safe water distribution (no additional cost incurred). 			
Prepositioning Activities:	<ol style="list-style-type: none"> 1. Development of digital and printed educational materials on water use and hygiene promotion, including key messages on treating dehydration and preventing heatstroke. 2. Purchase of five community water tanks and storage accessories, each with a capacity of 1,100 liters. 3. Procurement of supplies to assemble family water purification and hygiene kits. 			
Priority Early Actions:	<ol style="list-style-type: none"> 1. Assessment, treatment, and distribution of safe drinking water to 600 families (3,000 individuals), providing 15 liters per person for 25 days through staff deployment, water purification plants, and/or water trucks within communities (including travel expenses, fuel, and other costs) – Trigger 2. 2. Workshop on appropriate water use and hygiene, including prevention of gastrointestinal diseases – Trigger 2. 3. Hygiene promotion campaign with key messages on treating dehydration and preventing heatstroke, using social media and distributing educational materials to 2,000 families (10,000 individuals) – Trigger 1. 			

4. Installation of five community storage tanks in schools and health centers – Trigger 2.
5. Distribution of 600 family water purification and hygiene kits – Trigger 2.

Enabling approaches

 Secretariat Services			49,296 CHF
			AP Code: 122
Readiness Activities:	<ol style="list-style-type: none"> 1. Salary for the Planning, Monitoring, Evaluation, and Reporting (PMER) Officer, Central America Cluster Delegation. 2. Salary for the Disaster Manager, Central America Cluster Delegation. 3. Communication Expenses. 4. Monitoring and Follow-up Expenses. 		
Prepositioning Activities:	<ol style="list-style-type: none"> 1. None. 		
Priority Early Actions:	<ol style="list-style-type: none"> 1. Expenses for visit during activation. 2. Financial expenses. 		

 National Society Strengthening			45,300 CHF
			AP Code: 124,125,126
Readiness Activities:	<ol style="list-style-type: none"> 1. Workshop for EAP socialization and implementation review with area managers. 2. Procurement of office supplies, courier services, and bank fees. 3. Institutional workshop for general EAP review for droughts (midterm review). 4. Salary for EAP coordinator. 5. Salary for EAP technician. 6. Salary for accounting technician. 7. Salary for information management administrator. 8. Salary for procurement technician. 		
Prepositioning activities:	<ol style="list-style-type: none"> 1. Provision of visibility equipment for volunteers (uniforms). 		
Priority Early Actions:	<ol style="list-style-type: none"> 1. Monitoring and evaluation of lessons learned. Trigger 2. 		

Budget



Early Action Protocol Summary

EAP2024SV01 - Salvadorean Red Cross Society
Drought

<u>Operating Budget</u>	Readiness	Pre-Pos Stock	Early Action	TOTAL
Planned Operations	133,952	84,302	231,614	449,868
Shelter and Basic Household Items	0	0	0	0
Livelihoods	88,761	863	112,354	201,979
Multi-purpose Cash	12,947	0	113,889	126,836
Health	0	0	0	0
Water, Sanitation & Hygiene	32,244	83,439	5,371	121,053
Protection, Gender and Inclusion	0	0	0	0
Education	0	0	0	0
Migration	0	0	0	0
Risk Red., Climate Adapt. and Recovery	0	0	0	0
Community Engagement and Accountabi	0	0	0	0
Environmental Sustainability	0	0	0	0
Enabling Approaches	85,293	3,357	5,946	94,596
Coordination and Partnerships	0	0	0	0
Secretariat Services	46,227	0	3,069	49,296
National Society Strengthening	39,066	3,357	2,877	45,300
TOTAL BUDGET	219,245	87,659	237,560	544,464

all amounts in Swiss Francs (CHF)

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