

# Emergency Plan of Action (EPoA)

## Panama: Chemical spill

<b>DREF Operation</b>	<b>MDRPA010;</b> <b>Glide n° AC-2014-000088-PA</b>
<b>Date issued: 9 July 2014</b>	<b>Date of disaster: 30 June 2014</b>
<b>Operation manager (responsible for this EPoA):</b> Pabel Angeles	<b>Point of Contact:</b> Jaime Fernández, president of the Red Cross Society of Panama
<b>Operation start date:</b> 1 July 2014	<b>Expected timeframe:</b> 3 months
<b>Overall operation budget:</b> 157,481 Swiss francs	
<b>Number of people affected:</b> 80,743 people	<b>Number of people to be assisted:</b> 30,000 people
<b>Host National Society presence:</b> 1 headquarters office, 14 branches, 1,500 volunteers, 75 staff members.	
<b>Red Cross Red Crescent Movement partners actively involved in the operation:</b> The Red Cross Society of Panama is coordinating, along with Movement actors, support actions with National Societies present in the country and with the International Federation of the Red Cross (IFRC)	
<b>Other partner organizations actively involved in the operation:</b> Civil Protection, Ministry of Health, Provincial Government, National Police, Aqueducts and Sewerage Institute, and private businesses.	

## A. Situation Analysis

### Description of the Disaster

On 30 June, the Ministry of Health (MoH) and the National Aqueducts and Sewerage Institute (IDAAN) reported a leak involving a chemical herbicide called atrazine into a tributary of the La Villa River, the main source of drinking water supply to the provinces of Herrera and Los Santos in the Republic of Panama. Water analyses determined higher-than-normal presence of the substance, establishing that the water produced by the Chitre and La Villa water treatment plants was not suitable for human consumption.

Atrazine is an odourless, not very volatile, reactive or flammable chemical. It is water-soluble and relatively persistent in soil and water, and can migrate and contaminate the water in areas where it is used. This chemical is used to eliminate weeds in agriculture. According to the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), this substance can affect pregnant women, causing poor fetal growth, and studies in animals exposed to high levels of atrazine have shown damage to liver, kidney and heart.

On 2 July, the Government of Panama declared an emergency due to contamination in affected areas in the provinces of Herrera and Los Santos in order to strengthen safe water distribution actions to the affected population. The Civil Protection System has set up two centres of operation in both provinces to articulate and coordinate response efforts between organizations. One is located in Civil Protection offices in Herrera and the second at the Red Cross Society of Panama Committee of Las Tablas in Los Santos.

The Chitre and La Villa water treatment plants are keeping up their water production to affected district networks, which is to be used exclusively for cleaning purposes but not for human consumption. Authorities expect the high levels of atrazine to decrease over the coming weeks. So far there have been no outbreaks of diarrhea or of other diseases related to water use and consumption.

Classes in schools have been suspended until the situation gets back to normal and access to safe water can be ensured for the schools. Hospitals are running normally, and their safe water supply is coming from 10,000- or 15,000-litre reservoirs installed by the Red Cross Society of Panama.

Jointly with other organizations, the National Aqueducts and Sewerage Institute (IDAAN) is running six treatment plants in certified wells. Seventeen tanker trucks have distributed 155,600 gallons of water and 35,000 boxes of bottled water in the districts of Chitré, Las Tablas and La Villa in the provinces of Herrera and Los Santos respectively.

The district of Las Tablas, in particular, has water wells which were shut down when the water system was installed. Given the emergency situation, these wells have been reactivated to provide access to water to the affected populations. The Ministry of Health is evaluating the quality of the water from these wells, constantly checking on food sales and ice factories in affected districts to check that tap water is not being used.

Herrera and Los Santos governorates are constantly coordinating with their technical boards for logistics and support to Civil Protection and Red Cross staff for water distribution.

It is estimated that some 80,743 people have been affected in 14 communities in four districts in the provinces of Herrera and Los Santos in the Azuero region, listed below:

Province	District	Community	Number of people
Herrera	Chitre	Chitré Cabecera	9,092
		San Juan Bautista	11,823
		Llano Bonito	9,798
		La Arena	7,586
		Monagrillo	12,385
Los Santos	La Villa	La Villa	7,991
		El Bongo/Los Olivos	1,259
		Llano Largo	2,265
		Santa Ana	3,329
	Guararé	Guararé	5,629
	Las Tablas	Las Tablas	6,824
		El Carate	873
		El Cocal	1,889
<b>Total</b>			<b>80,743</b>

Source: Statistics and Census, Comptroller General of the Republic

## Summary of current response

The Red Cross Society of Panama is responding to the emergency through strategic coordination from the national headquarters and operational actions in affected areas. It is fulfilling its auxiliary role as per its humanitarian mandate and as a member of the National Civil Protection System. The Red Cross Committees in Las Tablas, Chitre and Las Villas are supporting operations to distribute bottled water and water through tanker trucks; 125 volunteers are supporting Red Cross actions. At the political level, the Las Tablas committee coordinator is the regional coordinator of the provinces of Los Santos, Coclé and Herrera, and is coordinating committee actions.

A National Society water and sanitation team has been sent to the area of involvement to perform assessment actions and install reservoirs. Water resources available from a previous DREF flood operation have been mobilized to support the response.

The National Society has delivered 1,410 water reservoirs and 10-litre buckets, and so far 434,488 litres of safe water have been distributed through tanker trucks, bottled water and storage reservoirs (bladders); 15,000-, 10,000- and 5,000-litre reservoirs have been delivered to hospitals and strategic points in the community. This action is being facilitated through water distribution via two tanker trucks provided in support to the Red Cross Society of Panama by Unión Fenosa, a private company.

### Chart for water reservoir distribution to communities

Province	District	Community	Water reservoirs (10-litre)	Buckets
Los Santos	Guararé	Guararé	100	200
	Las Tablas	Las Tablas	234	111
	La Villa	La Villa	210	220
Herrera	Chitré	San Juan Bautista	333	0
<b>Total</b>			<b>877</b>	<b>531</b>

### Chart for water storage reservoir distribution

Province	District	Location and points of distribution	Water reservoir capacity (Bladder) (litres)	Amount distributed (litres)
Herrera	Chitré	Red Cross Committee	5,000	25,000
		Gustavo Nelson Collado Hospital	10,000	10,000
		Cecilio Castellero Hospital	15,000	15,000
Los Santos	La Villa	Red Cross Committee	5,000	15,000
		Anita Moreno Hospital	15,000	15,000
	Guararé	Estrado de la Mejorana	10,000	10,000
	Las Tablas	Joaquín Pablo Franco Sayas Hospital	5,000	5,000
		Monagrillo	10000	10,000
<b>Total</b>				<b>105,000</b>

### Overview of the Red Cross - Red Crescent Movement in the country

The National Society has presence in the country through delegations from the International Federation of the Red Cross (IFRC), American Red Cross and Norwegian Red Cross, supporting projects in risk reduction, violence prevention, youth, and disaster preparedness.

The Red Cross Society of Panama also receives funding from the International Committee of the Red Cross (ICRC) for Movement outreach projects to populations displaced by violence.

### Movement coordination

The Red Cross Society of Panama establishes its inter-agency coordination through inter-agency cooperation agreements, executing and implementing actions through the general directorate.

Any humanitarian action by the Red Cross Red Crescent Movement in Panama will take place under one single plan of action for better impact in communities; the Red Cross Society of Panama is in charge of the plan's coordination and direction.

The Pan-American Disaster Response Unit (PADRU) of the International Federation of the Red Cross is in close communication with the Red Cross Society of Panama. The regional disaster management coordinator was deployed to the affected area in Panama and is supporting evaluation and coordination actions to support the National Society. In addition, a member of the Regional Intervention Team (RIT) specializing in water and sanitation will be deployed for one month to support the National Society in the coordination and implementation of the Plan of Action and with other technical aspects.

## Overview of non-Red Cross Red Crescent actors in the country

At the regional level, the emergency is being coordinated by the Civil Protection System through its operations centres in the provinces of Herrera and Los Santos. It is mobilizing tanker trucks to facilitate the distribution of treated well water and purchase and distribution of bottled water for consumption.

The Ministry of Health has been conducting health evaluations in communities, epidemiological monitoring and monitoring the quality of well water and water distribution systems, such as water treatment plants and tanker trucks.

At the provincial government level, support is being provided in coordinating the technical board in order to facilitate government actions in affected areas.

Security at water storage and distribution sites is being ensured by the National Police, which is also assisting with the security within the districts.

The Public Prosecutor's Office is conducting toxicological tests at water sources and has been conducting an investigation regarding the incident.

## Needs analysis, beneficiary selection, risk assessment and scenario planning

Currently, an estimated 20,000 families have been affected by issues related to the access to drinking water in the districts of Chitre, Las Tablas and La Villa in the provinces of Herrera and Los Santos. While institutional authorities and the Red Cross are distributing water in tanker trucks, storage reservoirs and boxes, this is not sufficient in terms of coverage, quantity and frequency.

According to the needs established by Red Cross assessments and through coordination with authorities, the main actions and needs for emergency care are:

- Increasing the volume of treated water.
- Establishing water storage reservoirs for the most distant and centrally located places.
- Distributing portable water reservoirs to facilitate their transportation by families.
- Information campaign on the proper use of water and hygiene and recycling.

The Plan of Action is intended to provide aid to communities at greater risk using the following vulnerability criteria:

- Families affected in terms of safe water supply.
- Areas difficult to access to distribute water.
- Low socioeconomic level
- Population with greater distribution of older adults and children.
- Presence of schools

## Risk assessment

According to follow-ups to atrazine monitoring at the water source, levels are expected to decrease gradually. According to studies, this substance has a half-life of around 45 to 60 days, and in favourable conditions can last up to 120 days. The heat and moisture of the soil can accelerate its degradation. To be safe, the general population is not consuming the water produced by the water network, however, there is a social concern regarding the access to a safe water supply.

## B. Operational plan and strategy

### Overall objective

Provide access to safe water to 6,000 families (30,000 people) affected by contamination of the La Villa river in the districts of Chitré, Las Tablas, Guarare and La Villa in the provinces of Herrera and Los Santos.

## Proposed strategy

The Red Cross Society of Panama's strategy will be based on coordinating with the authorities and working directly with communities. The strategy is set out at two levels: the first is a strategic management and coordination at the national level through the presidency and the general directorate; and the second is the operational level, managed by the regional coordinator with its committees in Chitré, Las Tablas and La Villa. Activities will involve comprehensive and coordinated efforts and will allow providing access to safe water to the affected population.

Following the Declaration of Emergency, the Red Cross Society of Panama will prioritize actions in the Plan of Action based on the needs and coverage of its committees. The 30,000 people from the districts of Chitre, province of Herrera, and the municipalities of Las Tablas and Guararé in the province of Los Santos will be selected according to vulnerability criteria mentioned above.

### Target population of the operation

Province	Municipality	No. of persons	No. of families
Herrera	Chitré	8,500	1,700
Los Santos	Las Tablas	5,750	1,150
	Guararé	7,250	1,450
	La Villa	8,500	1,700
<b>TOTAL</b>		<b>30,000</b>	<b>6,000</b>

The following actions are proposed within the Plan of Action's strategic lines:

- Safe water treatment;
- Distribution of safe water through tanker trucks;
- Facilitate the distribution of water in reservoirs and water storage containers strategically located in hospitals and in communities most in need;
- Facilitate transporting water by providing portable water reservoirs to families;
- Communication campaign to affected families on the proper uses of water, hygiene, and recycling.

It would be strategic to work in coordination with the various authorities for homogeneous population care, looking for synergies and avoiding duplication of efforts.

Weekly meetings will be promoted between the three committees concerned to coordinate actions as well as actions to be implemented. The Red Cross Society of Panama will continue to meet with emergency committees locally.

## Operational support services

The Red Cross Society of Panama defines the organization of disaster response based on three levels: national, regional, and local. Two levels are defined at the organizational level:

- Administrative
  - Finance
  - Accounting
  - Human Resources
  - Logistics
  - Treasury
- Operational
  - Volunteer Women
  - Aid providers
  - Legionnaires
  - Youth
  - K-sar

## Human Resources

For planned actions, the Red Cross Society of Panama will mobilize its National Intervention Teams specializing in water and sanitation and volunteers from committees affected to support the implementation of the Plan of Action.

Taking into account the operation's community activities, a full time operations coordinator will be needed, who will be in charge of operational activities and responsible for management of operations and finance. Additionally, a water and sanitation coordinator will be recruited to provide technical support in the field, as well as a communications and reporting coordinator, who will facilitate the dissemination of key messages and write status and operation reports. Seventy-five volunteers from the provincial branches will provide support to the operation.

In summary, the DREF operation will support the National Society's human resources through:

- 1 Operations coordinator
- 1 Water and sanitation coordinator
- 1 Communications and reporting coordinator
- 75 volunteers

As part of IFRC's technical support, a member of the Regional Intervention Team specializing in water and sanitation will be mobilized for one month to support action coordination and Plan of Action implementation. Likewise, PADRU's water and sanitation officer will contribute technically to the operation's development.

## Logistics and supply chain

The National Society has an accounting department in charge of procuring goods and services. It has a warehouse for emergencies in Arraijan in the province of Panama, and another strategic warehouse in the Colon Free Trade Zone. In addition, there is a warehouse for operational aspects at the Las Palmas Committee.

National Society purchases planned for in the Plan of Action will be made by the National Society and IFRC's Zone Logistics Unit (ZLU).

Two vehicles will need to be rented by the operation to support community actions by La Villa and Chitré committees.

## Information Technology (IT)

For this operation, ODK will be downloaded to cell phones to collect information from a rapid assessment and to select beneficiaries. Mega V will be used to support distribution of humanitarian aid.

## Communications

The National Society is preparing a communications campaign to the affected population, providing information on recommendations for appropriate water use. In addition, the communications and reporting coordinator will provide coverage for project actions and provide information so that the media can disseminate Red Cross actions both internally and externally.

Through its Communications Department, the IFRC is supporting dissemination of actions conducted by the National Society.

Information published:

<http://www.ifrc.org/es/noticias/noticias/americas/panama/cruz-roja-panamena-brinda-agua-segura-a-poblacion-afectada-66294/>

## Security

A security plan for use in the field will be drawn up for this operation's development to strengthen staff security mechanisms. This document will be socialized with all staff deployed in the field. Likewise, volunteers are properly identified and insured for community activities. All operational actions will take place during daytime hours.

Volunteers will be insured through IFRC insurance. They will be provided with visibility material, such as caps and polo shirts.

**Planning, monitoring, evaluation and reporting (PMER)**

The general directorate of the Red Cross Society of Panama will ensure actions and fulfilment of the Plan of Action by the coordination team, making sure that a report for the first month and an end-of-operation report are submitted. In addition, they will receive support from the IFRC regional disaster management coordinator during the process .

In addition, coordination meetings will be held between the committees concerned in Las Tablas, Chitre and La Villa, managed by the Red Cross Society of Panama regional coordinator.

**Administration and Finance**

The Red Cross Society of Panama has an accounting system for managing financial and accounting resources. The proper use of financial resources will be in accordance with conditions laid down in the memorandum of understanding between the National Society and the International Federation of the Red Cross. Resource management will be according to National Society financial regulations and DREF guidelines.

In addition, the National Society's own procedures will be applied to the justification of expenses process and will be done on IFRC formats. According to DREF procedure, the DREF funds will not be supporting permanent structural costs, only the expenses incurred during the three-month operation.

## C. DETAILED OPERATIONAL PLAN

### Quality programming/Areas common to all sectors

Activities established for common areas will allow conducting assessments in the field and facilitate access to communities.

OBJECTIVES		INDICATORS											
<b>Outcome 1:</b> Continuous evaluation, monitoring and analysis for the operation's design and implementation.		N° of evaluations conducted											
<b>Output 1.1.</b> Initial needs assessment is made in consultation with beneficiaries.		N° of assessment reports where beneficiaries are consulted (assessment reports, plan of action).  Assessment reports that provide data on the affected population, disaggregated by sex, age and vulnerabilities (assessment reports).											
<b>Output 1.2.</b> Beneficiary registration is applied by using ODK on mobile phones and aid is distributed by using Mega V.		N° of people registered using ODK N° of distributions using Mega V.											
<b>Output 1.3.</b> The operation's management is implemented through a comprehensive monitoring and evaluation system		N° of specialists hired and mobilized											
Activities	Week	1	2	3	4	5	6	7	8	9	10	11	12
Conduct a rapid assessment of the emergency		■											
Rapid induction on ODK and Mega V use		■	■										
Beneficiary registration		■	■	■	■								
Distribution of humanitarian aid.		■	■	■	■								
ODK and Mega V programming workshop					■								
Support and monitoring by IFRC		■	■	■	■	■	■	■	■	■	■	■	■
Hiring of National Society staff		■	■	■	■	■	■	■	■	■	■	■	■

To implement and apply ODK and Mega V, a rapid induction will be conducted; Mega V kits will be acquired to facilitate the distribution of humanitarian aid. Subsequently, a workshop will be held for programming and Mega V.



Purchase of chemical supplies												
Purchase of connectors and hoses for plant installation												
Production of drinking water												
Maintenance of National Society's treatment plants												
Purchase of water tanks for storage and distribution												
Purchase of accessories and connectors for the installation of tanks to facilitate distribution at strategic points												
Distribution of safe water												
Production of informative materials												
Conduct information campaigns to communities												

The National Society will mobilize its two water treatment plants to produce drinking water. It has two tanker trucks to transport and distribute water through support by private businesses.

Water tanks will be placed in strategic locations so that affected families can have better access to water.

Water production and distribution, as well as information campaigns, will continue until authorities indicate that the water distributed through the city's network is suitable for human consumption.

## DREF OPERATION

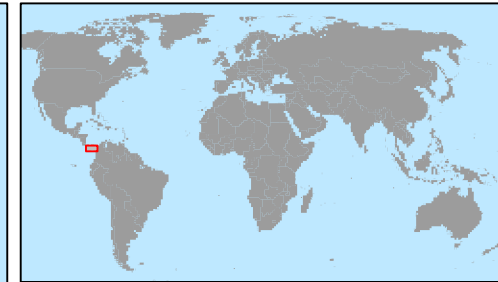
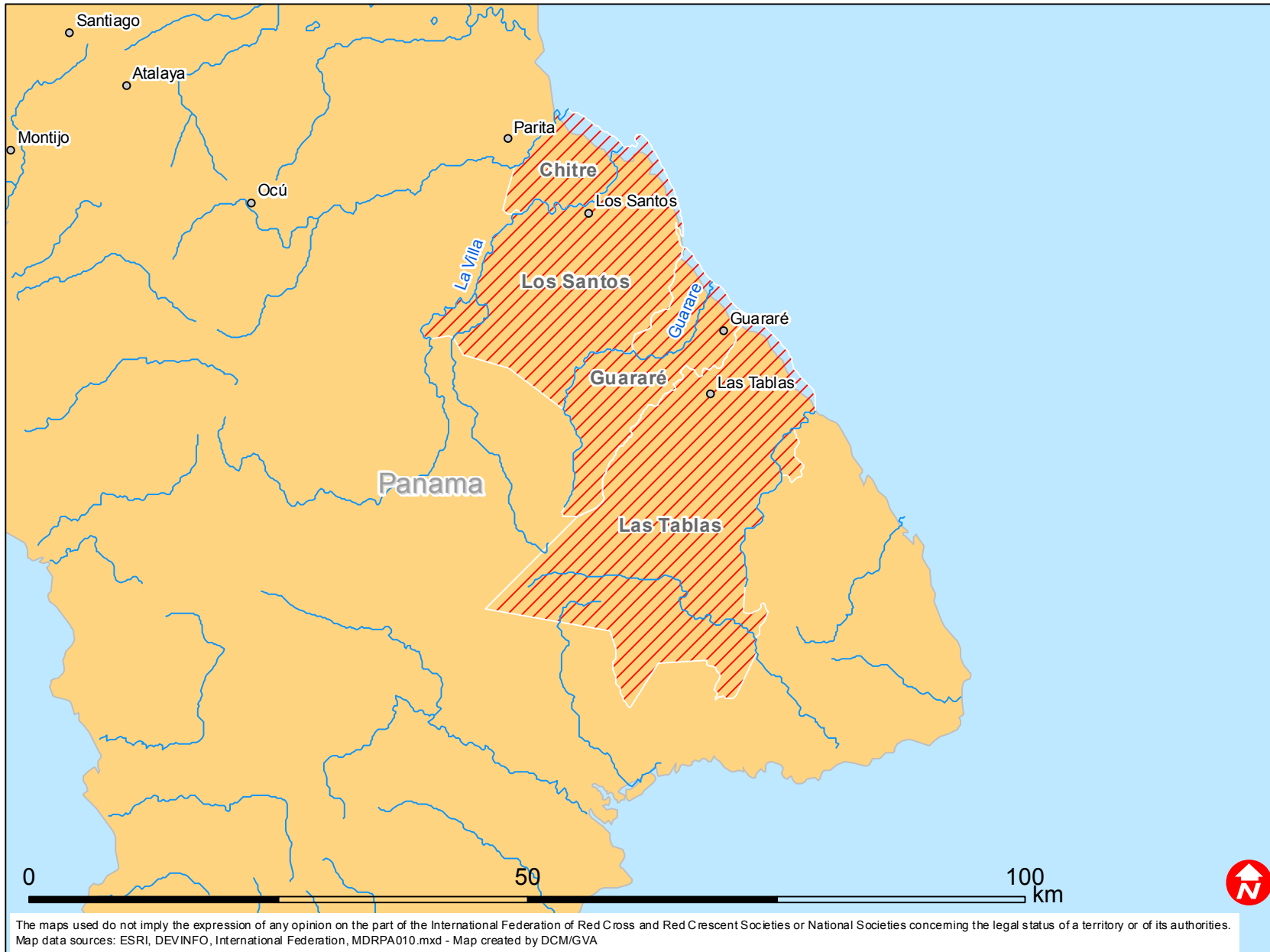
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Budget Group	DREF Budget CHF
Shelter - Relief	0
Shelter - Transitional	0
Construction - Housing	0
Construction - Facilities	0
Construction - Materials	0
Clothing & Textiles	0
Food	0
Seeds & Plants	0
Water, Sanitation & Hygiene	46,042
Medical & First Aid	0
Teaching Materials	18,774
Ustensils & Tools	31,219
Other Supplies & Services	0
Emergency Response Units	0
Cash Disbursements	0
<b>Total RELIEF ITEMS, CONSTRUCTION AND SUPPLIES</b>	<b>96,035</b>
Land & Buildings	0
Vehicles Purchase	0
Computer & Telecom Equipment	0
Office/Household Furniture & Equipment	0
Medical Equipment	0
Other Machinery & Equipment	0
<b>Total LAND, VEHICLES AND EQUIPMENT</b>	<b>0</b>
Storage, Warehousing	0
Distribution & Monitoring	0
Transport & Vehicle Costs	7,241
Logistics Services	3,040
<b>Total LOGISTICS, TRANSPORT AND STORAGE</b>	<b>10,281</b>
International Staff	4,470
National Staff	0
National Society Staff	5,990
Volunteers	13,714
Other Benefits Staff	1,207
<b>Total PERSONNEL</b>	<b>25,381</b>
Consultants	0
Professional Fees	0
<b>Total CONSULTANTS &amp; PROFESSIONAL FEES</b>	<b>0</b>
Workshops & Training	2,861
<b>Total WORKSHOP &amp; TRAINING</b>	<b>2,861</b>
Travel	4,023
Information & Public Relations	1,475
Office Costs	6,526
Communications	1,287
Financial Charges	0
Other General Expenses	0
Shared Support Services	0
<b>Total GENERAL EXPENDITURES</b>	<b>13,312</b>
Programme and Supplementary Services Recovery	9,612
<b>Total INDIRECT COSTS</b>	<b>9,612</b>
<b>TOTAL BUDGET</b>	<b>157,481</b>
<b>Available Resources</b>	
Multilateral Contributions	
Bilateral Contributions	
<b>TOTAL AVAILABLE RESOURCES</b>	<b>0</b>
<b>NET EMERGENCY APPEAL NEEDS</b>	<b>157,481</b>



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////// Affected districts