

DREF operation final report



International Federation
of Red Cross and Red Crescent Societies

Caribbean: Drought

DREF operation n° MDR49005
GLIDE n° DR-2010-000029-TTO
28 June 2010

The International Federation's Disaster Relief Emergency Fund (DREF) is a source of un-earmarked money created by the Federation in 1985 to ensure that immediate financial support is available for Red Cross and Red Crescent emergency response. The DREF is a vital part of the International Federation's disaster response system and increases the ability of National Societies to respond to disasters.

A total of 23,986 Swiss francs (22,379 US dollars/ 16,340 euro) has been allocated from the Federation's Disaster Relief Emergency Fund (DREF) to deploy 2 Regional Intervention Team (RIT) members to perform initial damage and need assessments and provide support to the National Societies of Barbados, Grenada, Guyana, Saint Lucia and Trinidad and Tobago due to the effects of the drought.

Summary: At the beginning of January 2010 several Caribbean countries began experiencing severe water shortages due to lack of rain, which affected the agricultural sector. The Caribbean Institute of Meteorology and Hydrology in Saint James, Barbados, issued drought alerts for the eastern Caribbean. In response a DREF was authorized to fund the deployment of two RIT, one specialized in water, sanitation and hygiene (WASH), and the other in food security and nutrition. The objective of the deployment was to carry out a comprehensive assessment in affected areas within the south-eastern Caribbean and Guyana from a WASH and food security perspective, outline recommendations and develop a plan of action to respond to the current situation to reduce future risk. Recommendations from the assessment focused on installing water tanks and rehabilitating wells in communities without storage capacity.



The water level of the dam in Saint Lucia was reduced to the drought. Source: International Federation

Since completion of the report the drought came to a precipitous end as rains have begun to fall heavily on the eastern Caribbean, easing conditions considerably. In order to reduce risk to future drought recommendations related to water storage and well rehabilitation are being considered under the ECHO-funded regional disaster risk reduction project.

The major donors to the DREF are the Irish, Italian, Netherlands and Norwegian governments and ECHO. Details of all donors can be found on:

<http://www.ifrc.org/what/disasters/responding/drs/tools/dref/donors.asp>

[<click here for the final financial report, or here to view contact details>](#)

The situation

As the result of below average rainfall, the Caribbean Institute of Meteorology and Hydrology (CIHM) in Saint James, Barbados, issued drought alerts for the south-eastern Caribbean. From October 2009 to January 2010 the islands from Dominica southward to Trinidad have experienced moderately to extremely dry conditions. Saint Lucia, Barbados, Saint Vincent and the Grenadines and Grenada in particular have been affected by extremely dry weather. Water levels dropped quickly in several Caribbean countries, prompting officials to limit availability and impose restrictions as the region entered its dry season.



Examples of dying banana trees due to lack of water. Source: International Federation

With below normal rainfall projected for the region from January to March, water resource managers began rationing water and imposing restrictions on its use. This caused water shortages in many areas of the different countries, especially in elevated areas where water pressure was insufficient to reach those heights.

Many farmers in the south-eastern Caribbean were also being affected by the lack of rain, either due to limited rainfall for dry farming or reduction of irrigated water. This impacted farmers crop yields which in turn reduces the income of rural families. It also can lead to an increase in crop prices, leading to overall inflation and erosion of purchasing power.

In order to determine the extent of the effects of the drought the assessment team used the following methodology.

- Review of secondary information
- Meeting with disaster agencies
- Meeting with government/regional institutions concerning health, agriculture, and environmental health
- Meeting with private sector stakeholders
- Interviews with household and farmers
- Site visits

A brief summary of the assessment results for each country are included below:

Grenada

The drought conditions experienced in Grenada were some of the worst during the last 20 years and had a direct impact on water resources and agriculture production in the country. In addition, more than 200 bush fires were registered by the fire service in country since the beginning of this year.

The National Water Authority of Grenada (NAWASA) confronted the water shortage and began transporting water to the different parishes. However, due to lack of storage capacity it was difficult to reach all the households that needed assistance. The parishes that suffered most from this shortage were: Saint Patrick, Saint David's, the southern part of Saint George, and the two sister islands Carriacou and Petite Martinique.

As a result of the drought, vegetables, plantains, fruit and breadfruit crops were destroyed. Due to the continuous drought farmers were not able to replant until May when rains began falling again. Livestock farmers had to decrease their herds into smaller or more manageable proportions because of pasture problems and water shortage. These measures combined with the onset of the rainy season mitigated further deterioration of the system.

Saint Lucia

Saint Lucia experienced a drought in 2001 and as a result the government developed a water management contingency plan that could be implemented when drought conditions threatened the island. When it was faced with a substantial decline in rainfall during the October 2009 and March 2010 the contingency plan was implemented.

Although the country faced water shortage the following steps were taken which significantly mitigated its affects:

- Rationing water in different areas in the country
- Transportation of water to different areas, where the water pressure was low
- Rehabilitation of old water sources

- Education on efficient use of water

Most of the farmers in Saint Lucia depend on natural rainfall for agriculture production. As a result of the drought there were the following consequences:

- Crop production declined
- Reduction in banana production
- Increase in production cost due to the trucking of water and labor
- Increase of prices for agriculture commodities
- Livestock affected by water storage and the decline in pasture.

Barbados

Since the beginning October 2009, many parts of Barbados also experienced rainfall amounts well below average. Although a reasonable water distribution system is in place in Barbados, the government asked people to conserve water through actions such as cleaning of old wells, water conservation methods and implementation of rainwater catchment. Additionally, they are also positioning water storage tanks in certain strategic communities.

Barbados imports most of its agricultural commodities although the agriculture sector had grown by seven per cent the previous year. Unfortunately, this year there will be a decline in the agricultural sector as a result of the drought. The water authority has started to ration the water supply for farmers, which is compounded by many wells and river being affected by salt intrusion. As a result farms are experiencing a drop in productivity. The government is in the process of looking at an alternative support system for the farmers who lost their productions. Measures being taken to improve the situation include, introducing alternative production techniques such as drip irrigation for efficient water use and composting to increase soil fertility. The introduction of a kitchen garden is one of the activities that the Ministry of Agriculture wants to advocate to increase the nutritional value of the diet of the different households.

Guyana

Guyana is known throughout the world for its abundance of rivers. However, the western part of the country was affected by the drought. In 1998 the country experienced a drought and as a result a water management contingency plan was designed to respond to the drought conditions, especially for farmers. The current drought was more severe compared to the drought in 1998. Despite the water management plan the effects of the drought were felt by the communities in western regions of the countries in the agricultural sector.

The Guyana Water Authority initiated water use restrictions and a publicity campaign to reduce water use. People were asked to be proactive and deepen existing wells, but also reduce water use for activities such as car washing and lawn watering.

In Guyana the major agriculture activities are on the coastal areas and these experienced a decline in production due to the intrusion of salt water in the irrigation systems. The two commercial agriculture commodities rice and sugar experienced low yields due to the high temperatures and lack of irrigation water. Compared to the coastal areas, communities in the interior were more affected by the drought situation because of poor infrastructure which make the accessibility to these communities difficult. Most of the villages are accessible only by the rivers and the low water levels restricted this communication route. The majority of communities rely on the rivers to transport commodities from the city, which was made more difficult due to the low river levels.

Farmers have received assistance from the government through the El Niño Emergency Relief Fund.

Trinidad and Tobago

In Trinidad and Tobago, the government issued a state of emergency due to the drought and began rationing water both for drinking and agriculture purposes. Communities that depended on wells were the most affected. The government began trucking water to these communities, but it was often felt to be insufficient. As a result there were a number of protests which took place. In other areas, piped water rationing was done with the number of days with running water per week reduced. Piped water for the agricultural sector was stopped and many of the rivers dried up. Moreover, farmers near the river with remaining water were required to have a permit to withdraw water from the rivers.

Coordination and partnerships

In most of the countries a disaster management unit is installed to coordinate actions in a state of emergency. However, it was found that these agencies were not fully involved in the implementation and

coordination to mitigate the implication of the drought. Instead the national water authorities and Ministries of Agriculture were the main actors. The Red Cross National Societies worked to bridge this gap by coordinating with different ministries, water authorities and national disaster management offices that had varying levels of success in each country.

The partnership with different communities through the community-based disaster management projects underway facilitated communication with communities. Mitigation activities resulting from this assessment will be linked into community-based disaster management projects wherever possible.

With respect to food security it was strongly recommended that a new partnership is establish with the Inter-American Institute for Cooperation on Agriculture (IICA). This organization operates in the Inter-American system and is mandated by the head of states of 34 countries in the western hemisphere to develop rural areas and agriculture. Food security is one of the major activities that IICA is involved. In each country there is an office were country level collaboration can take place. Suriname already has an agreement with this organization that will serve as a model for other societies interesting in taking this forward.

Red Cross and Red Crescent action

The National Societies from Barbados, Grenada, Guyana, Saint Lucia and Trinidad and Tobago were in constant communication with the IFRC's Pan American Disaster Response Unit (PADRU) and the Caribbean Regional Representation Office based in Port of Spain in order to coordinate possible actions.

Many of the National Societies in the region benefit from disaster preparedness programmes, focusing on Vulnerability Capacity Assessments (VCA), Community Disaster Response Teams (CDRT), micro-mitigation projects and trained national intervention teams (NITs). There is support by regional training in these areas, as well as sharing lessons learnt through the Regional Disaster Management Network. Nevertheless, as the majority of National Societies did not have experience in responding to this type of emergency an external assessment team was mobilized.

The needs

These consequences of the drought were not as severe as they could have been due to government actions to ration and distribute water to areas in need; however, the situation remained precarious until early May when rains began to fall heavily on the south-eastern Caribbean easing conditions considerably. However, there remains a need for the following actions to reduce risk to future droughts:

- Implement water catchment and/or storage systems that can improve access to potable water in the different communities.
- Educate the communities and the population in conservation and treatment of water.

The operation

Damage and need assessments
Objective: Two RIT members, with the Red Cross Societies of Barbados, Grenada, Guyana, Trinidad and Tobago and Saint Lucia, will perform damage and needs assessments in the Caribbean countries affected by the drought and will define the plan of action to address the needs.
Activities planned: <ul style="list-style-type: none"> • Conduct four assessment workshops for volunteers. • Conduct emergency damage and needs assessments. • Elaborate a plan of action (if/as required).

Two RIT members travelled to the Red Cross National Societies of Barbados, Grenada, Guyana, Saint Lucia and Trinidad and Tobago to perform assessments of the drought and define a plan of action to address the need. Based on these assessments, and taking into consideration the sudden end to drought conditions, it was decided that the Red Cross National Societies would focus on actions that reduced risk to future droughts, specifically water storage and well rehabilitation.

The following actions are being considered as part of this:

Grenada: Purchase and installation of three 1,000 gallon water tanks

Barbados: Purchase and installation of one 1,000 gallon water tank

Guyana: Distribution of jerrycans and purification tablets

Saint Lucia: Purchase and installation of one 1000 gallon water tank

Trinidad and Tobago: Purchase and installation of one 1,000 gallon water tank and rehabilitation of wells

Support for these actions will be provided through the ECHO-funded regional disaster preparedness project.

How we work

All International Federation assistance seeks to adhere to the [Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations \(NGO's\) in Disaster Relief](#) and the [Humanitarian Charter and Minimum Standards in Disaster Response \(Sphere\)](#) in delivering assistance to the most vulnerable.

The International Federation's vision is to inspire, encourage, facilitate and promote at all times all forms of humanitarian activities by National Societies, with a view to preventing and alleviating human suffering, and thereby contributing to the maintenance and promotion of human dignity and peace in the world.

The International Federation's work is guided by [Strategy 2020](#) which puts forward three strategic aims:

1. Save lives, protect livelihoods, and strengthen recovery from disaster and crises.
2. Enable healthy and safe living.
3. Promote social inclusion and a culture of non-violence and peace.

Contact information

For further information specifically related to this operation please contact:

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[<Final financial report; click here to return to the title page>](#)

International Federation of Red Cross and Red Crescent Societies

MDR49005 - Caribbean - Drought

Final Financial Report

Selected Parameters	
Reporting Timeframe	2010/2-2010/6
Budget Timeframe	2010/2-2010/5
Appeal	MDR49005
Budget	APPEAL

All figures are in Swiss Francs (CHF)

I. Consolidated Response to Appeal

	Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL
A. Budget	23,986					23,986
B. Opening Balance	0					0
Income						
<u>Other Income</u>						
Voluntary Income	23,432					23,432
C6. Other Income	23,432					23,432
C. Total Income = SUM(C1..C6)	23,432					23,432
D. Total Funding = B + C	23,432					23,432
Appeal Coverage	98%					98%

II. Balance of Funds

	Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL
B. Opening Balance	0					0
C. Income	23,432					23,432
E. Expenditure	-23,432					-23,432
F. Closing Balance = (B + C + E)	0					0

III. Budget Analysis / Breakdown of Expenditure

Account Groups	Budget	Expenditure					TOTAL	Variance
		Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination		
A		B					A - B	
BUDGET (C)		23,986					23,986	
Transport & Storage								
Transport & Vehicle Costs	534							534
Total Transport & Storage	534							534
Personnel								
Regionally Deployed Staff	7,476							7,476
Consultants		2,235				2,235		-2,235
Total Personnel	7,476	2,235				2,235		5,241
Workshops & Training								
Workshops & Training	5,126	16,023				16,023		-10,897
Total Workshops & Training	5,126	16,023				16,023		-10,897
General Expenditure								
Travel	7,689	3,499				3,499		4,190
Office Costs	534							534
Communications	534	244				244		290
Financial Charges	534							534
Total General Expenditure	9,291	3,744				3,744		5,547
Programme Support								
Program Support	1,559	1,430				1,430		129
Total Programme Support	1,559	1,430				1,430		129
TOTAL EXPENDITURE (D)	23,986	23,432				23,432		554
VARIANCE (C - D)		554				554		