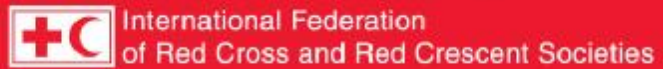


DREF operation final report



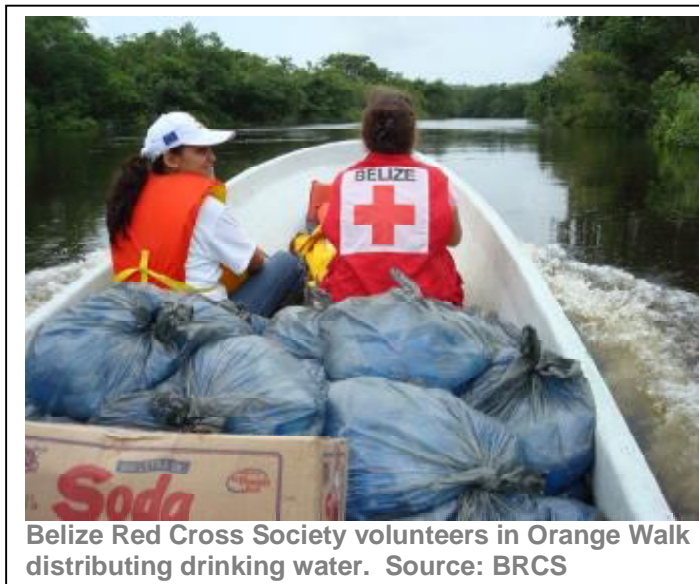
Belize: Tropical Storm Arthur

DREF operation n° MDRBZ001
GLIDE n° TC-2008-000078-BLZ
22 December 2008

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 Red Crescent response to emergencies. 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.

Summary: CHF 90,000 was allocated from the Federation's Disaster Relief Emergency Fund (DREF) on 4 June 2008, with an additional CHF 69,000 allocated on 10 June 2008 to support the national society in delivering assistance to some 2,500 beneficiaries and to replenish pre-positioned stocks.

This final report will describe the results and achievements of the operation in accordance with the objectives set out in the Tropical Storm Arthur DREF Operation that began on 4 June 2008 and was completed on 4 September 2008. In total 2,500 beneficiaries (500 families) received emergency relief items, safe water, adequate sanitation and hygiene promotion allowing them to recover from the disaster. Pre-positioned stocks were replenished in view of preparedness for the second part of the hurricane season, which proved vital for the recent tropical depression response.



Belize Red Cross Society volunteers in Orange Walk distributing drinking water. Source: BRCS

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

The situation

Tropical Storm Arthur formed on Saturday 31 May 2008 and made landfall in Northern Belize before becoming the first named storm of the Atlantic hurricane season. Heavy rains throughout Belize caused rivers across the country to overflow. The rains from Tropical Storm Arthur compounded the effects of Tropical Storm Alma that had developed in the Eastern Pacific on 27 May. Together, the two storms brought approximately 15 inches of rain over 36 hours across Belize causing flash flooding in low lying areas, affecting 10,000 people and causing the death of seven people. Two thirds of the country was flooded. Agriculture and aquaculture were severely affected and it is estimated recovery could take months.

The area most affected was Stann Creek where roads and bridges were washed away preventing access to the area for several days. Although Belize had experienced hurricanes in the past, the flooding was unexpected and its effect on the population was different from previous disasters being larger in duration and scope.

The experience gained from last year's Hurricane Dean allowed for timely and appropriate response to the disaster. From National Society headquarters to branch level the response was immediate, rapid, orderly and controlled.

Red Cross and Red Crescent action

Belize Red Cross Society (BRCS) immediately responded to the disaster, all eight local branches in the six districts of the country were prepared and able to respond in a timely and appropriate manner. Within 24 hours over 30 National Intervention Team members (NIT) were deployed to the most affected areas: the districts of Corozal, Orange Walk and Stann Creek.

Coordination and cooperation with the government's National Emergency Management Office (NEMO), Partner National Societies (PNS) in country and NGOs were ongoing throughout the operation to share information and avoid duplication.

A Plan of Action was elaborated and implemented at the start of the operation with the support of a disaster management delegate (DM) from the Pan American Disaster Response Unit (PADRU) and a finance delegate from the International Federation's Caribbean Regional Representation Office (CRRO) in Trinidad.

The BRCS continues to receive in-country support through a bilateral programme with Norwegian Red Cross via two in-country delegates working on DIPECHO programmes. The knowledge of these delegates in terms of Water and Sanitation and Hygiene Promotion, proved useful during the assessment phase of the operation.

The Mexican Red Cross deployed a team of 12 delegates trained in assessments and distributions to support the operation, thanks to the funding of the American Red Cross (AmCross). The delegates helped identify beneficiaries in Stan Creek, Orange Walk and Corozal. They donated radios to headquarters and five branches and trained local staff on their usage. This capacity building was essential to the BRCS's capacity to respond quickly to disasters with proper communication between all branches and headquarters.

PADRU deployed a Regional Intervention Team (RIT) specialized in logistics, a RIT specialized in health (AmCross), and a RIT specialized in reporting and information (Canadian Red Cross), over the course of the operation to support the BRCS. A disaster preparedness programme took place in Belize during September to further develop the disaster preparedness response strategy for the BRCS at the national level. A Revised Disaster Response Plan was drafted. This programme was made possible by the Federation – PADRU and AmCross. The programme's second phase is being planned for January 2009 to develop the disaster response strategy at the branch level and provide staff training.

Progress towards objectives

Relief distributions (food and basic non-food items)

Objective: 500 families (2,500 beneficiaries) will benefit from the provision of relief items to recover from the effects of the Tropical Storm.

Expected result	Activities planned to reach this objective included
Distributions were carried out according to assessment and selection criteria that identified actual needs and vulnerable groups, and were based on careful registration and a process that controls, monitors, and records the movement of the items.	<ul style="list-style-type: none"> • Conduct rapid emergency needs and capacity assessments. • Develop beneficiary targeting strategy and registration system to deliver intended assistance. • Distribute relief supplies and control supply movements from point of dispatch to end user. • Monitor and evaluate the relief activities and provide reporting on relief distributions. • Develop an exit strategy.

Impact

Following the rapid emergency needs and capacity assessment, beneficiaries were identified and the BRCS carried out distribution of emergency relief items, from 2 June to 25 July 2008. Relief items were therefore distributed to over 2,500 beneficiaries in the districts of Orange Walk, Stan Creek and Corozal.

Item	Quantity per Item
Food parcel	500
Blankets	50
Hygiene kits	100
Cleaning kits (Stann Creek)*	100
Mattresses	171
Kitchen sets	279
Buckets*	402
Jerry cans*	150
Tarpaulins	83
Chlorine Tabs (Stann Creek)*	30,720
Mosquito nets	1000

(*These distributions apply to Emergency Health Objective 2)

Distribution to families were based on individual family assessments, thus not every family received the same emergency relief items. Relief items were procured both locally and from PADRU. Remaining stocks were pre-positioned in preparedness for emergency relief response.

Item	Quantities pre-positioned for future emergencies
Blankets	1,820
Hygiene kits	400
Mattresses	29
Kitchen sets	221
Buckets	1,398
Jerry cans	2,050
Tarpaulins	400
Chlorine Tabs	41,280
Mosquito nets	400

Two additional warehouses were rented for the pre-positioning of stocks, one in the Center of Belize City (Central American Boulevard) and one closer to the airport in Ladyville.

Challenges:

The main challenge in the early phase of the emergency was lack of access to the most affected regions in the South (Stann Creek) due to flooded roads and damaged bridges.

Another challenge was limited communication with the branches due to lack of Internet and radio communication. This problem has since been addressed thanks to the support of the Mexican Red Cross which provided headquarters and five local branches with radios and training to the local staff in the use of them. Two branch offices (Stann Creek and Orange Walk) were also equipped with Internet access.

Another challenge the BRCS encountered during distribution of emergency relief items the rental of vehicles that were not cost effective. Additionally, the large number of volunteers during the initial phase of the emergency decreased during relief distribution as most volunteers had to return to work and school.



Belize Red Cross Society is conducting assessments for relief distributions in Orange Walk. Source: BRCS

Emergency Health

Objective 1: The health risks of the emergency on the affected population are reduced through the provision of preventive and community-level education to 100 families (500 beneficiaries) in 3 months.

Activities planned

- In collaboration with the Ministry of Health, conduct clean-up campaigns in six villages.
- Distribute 1,000 treated mosquito nets to 500 families with instructions.
- Produce and broadcast public service announcements to inform about vector control.
- Distribute flyers with health information.
- Train six villages on Basic Community First Aid.
- Carry out HIV and AIDS and Sexually Transmitted Infections (STI) awareness activities, stigma and discrimination and HIV and AIDS in emergencies sessions in six villages.
- Print and post 500 posters on HIV and AIDS and STI awareness.
- Distribute condoms in shelters and at HIV and AIDS, and STI information sessions.
- Integrate psycho-social support awareness sessions in cooperation with the Ministry of Education.

Impact:

All NITs in country had been trained to teach Community Based First Aid and branch trainers were trained to teach Basic First Aid and Community Based First Aid. Each assessment team during Tropical Storm Arthur's relief operation had NITs trained in first aid as well as a first aid kits to provide aid as needed. A power point presentation was prepared, to complement the existing training manual; to help NITs involved in community based first aid training with a special focus on prevention. Training of local staff and volunteers also took place on the delivery and use of educational materials.

Basic First Aid was carried out in all three affected districts mainly for minor cuts, other cases such as skin infections were referred to the Ministry of Health and local doctors.

Condom distribution took place in all 22 government-shelters in the various communities of Stann Creek, Corozal and Orange Walk.

Distribution of mosquito nets and information on vector control took place in all three affected districts. An informational flyer about vector control (in both English and Spanish) and use of the specific mosquito net were also produced and distributed.

Mosquito nets and the educational materials were sent to the Orange Walk, Corozal, and Stann Creek

branches for distribution. The Mexican Red Cross volunteers worked along with two northern branches of Orange Walk and Corozal in order to carry out the distributions. The southern Red Cross branch of Stann Creek was supported by a Health RIT from PADRU to carry out distributions.



BRCS conducting assessments in Orange Walk.
Source: Belize Red Cross Society

Mosquito Net Distribution

District	Quantities distributed
Corozal	250
Orange Walk	250
Stann Creek	500
TOTAL	1,000

The remaining stock of mosquito nets (400 nets) was pre-positioned for future emergencies.

During distributions carried out in the Dangriga area (Stann Creek District), seven local staff members and volunteers were trained on how to deliver the educational component during the distributions of chlorine tablets and mosquito nets.

Psycho-social Support (PSP): BRCS and its trained volunteers in psychosocial support (PSP) developed a programme targeting school children between the ages of five to 12 years who had been affected by the floods. This programme was developed as a two-day camp to help children overcome the psychological effects of the disaster. Over a two-day period, 214 children are to participate. The program was scheduled to begin during the first months of the school year. This programme was developed in coordination with the Ministry of Health Psychiatric Unit, Ministry of Human Development and a certified psychologist.

Challenges:

Due to the lack of access to certain areas as well as Tropical Depression number 16 (TD16), the PSP program was postponed until November 2008.

Emergency Health

Objective 2: The risk of waterborne and water related diseases will be reduced through the provision of safe water, adequate sanitation as well as hygiene promotion to 500 families (or 2,500 beneficiaries) in targeted areas as appropriate to the operation for three months.
Activities planned
<ul style="list-style-type: none"> • Assess the existing coverage with a view of ensuring availability of an adequate water supply. • Produce safe drinking water for 500 families for one month. • Distribute water purification tablets to 500 families for two months. • Distribute 1,000 jerry cans for 500 families for safe storage of water. • Print and post 1,000 posters on hygiene promotion.

Impact:

On 2 June 2008 a NIT specialized in Water Sanitation was deployed by aircraft to Stann Creek. This was the worst affected area, completely cut off due to flooded roads and damaged bridges.

To prevent the risk of waterborne and water related diseases that can arise within three days of a disaster, the team brought and set-up an emergency portable water purifier and was producing over 4,000 litres of drinking water per hour by 4 June. The second portable water purifier is located in Belize District. An additional warehouse was rented in the district of Corozal for temporary storage of the portable water purifiers. Overall, more than 137,500 liters of water were distributed to affected communities, of which 92,000 liters were distributed in Stann Creek.

In addition to safe drinking water, over 10,000 liters of cleaning water for cleaning homes were also distributed. In Stann Creek, 30,720 chlorine tablets were distributed to last up to two weeks. Hygiene promotion posters were distributed as well to all three affected districts.

A full sanitation mapping of the villages of Hope Creek, Sarawee and Mullins River in the district of Stann Creek was carried out. This entailed the drawing of a village map and development of a database that contains a full assessment of the latrines. The survey involved identifying different levels of work needed; for example, a stage one latrine being one that needs total construction and a stage four, one that requires only cosmetic work. In summary, 74 latrines needed complete reconstruction.

Challenges:

This first challenge was the lack of accessibility to Stann Creek, the most affected area. Thanks to the help of government air transport this challenge was overcome. .

The Ministry of Health was distributing a different brand of chlorine tablets with different dosage from the ones the BRCS distributed, which could create confusion among beneficiaries. Nevertheless, the chlorine tablets provided by the BRCS came with a set of instructions.

Another important problem was the lack of transport to carry water to the communities and the high cost of hiring trucks. However, delivery continued with the assistance of the Dangriga Rotary Club and thereafter using a tank on the trailer, pulled by the BRCS Land Cruiser. Also, people affected were provided with chlorine tablets and education in their use, enabling them to revert to their local water supply. A letter was addressed to the relevant government and local authorities communicating the BRCS strategy for better coordination.

Preparedness and Capacity Building

PADRU organized the visit of a Regional Intervention Team (RIT) member in September to assist in the revision and further develop the BRCS National Disaster Response Plan.

Following the assessments at the early phases of the operation and based on volunteer and staff suggestions and the Disaster Management committee's recommendations, a new assessment form was created which was implemented immediately with TD16.

All the staff and volunteers in the five BRCS branches received radios and were trained in the use of these, thanks to the support of the Mexican Red Cross.

Two branches in the affected districts were equipped with Internet access to facilitate communication between branches and headquarters.

Conclusion

Lessons learned:

- There is a need to devise a preparedness and disaster response strategy in a global perspective of climate change. Emergency response needs to include also other possible disasters such as flooding and fires.
- Staff and volunteers in all branches must be trained in the use of radios.
- A system of volunteer rotation is recommended to maintain the number of volunteers available from the assessment phase through to the end of the operation.

Progress was made in all these areas during the course of the operation; headquarters and five branches were trained and equipped with radios. Two affected branches were equipped with Internet access. Several PNS and the International Federation provided support in order to respond to the disaster and built capacity for the future.

Clear progress was made in the preparedness to disaster in terms of organization, management and coordination. At the branch level, NITs were trained and are ready to respond to future emergencies.

A debriefing session was scheduled following TS Arthur with all staff, NITs and volunteers. Due to TD 16, this meeting has been re-scheduled for the end of November to cover both operations.

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 is committed to the [Humanitarian Charter and Minimum Standards in Disaster Response \(Sphere\)](#) in delivering assistance to the most vulnerable.

The International Federation's activities are aligned with its Global Agenda, which sets out four broad goals to meet the Federation's mission to "improve the lives of vulnerable people by mobilizing the power of humanity".

Global Agenda Goals:

- Reduce the numbers of deaths, injuries and impact from disasters.
- Reduce the number of deaths, illnesses and impact from diseases and public health emergencies.
- Increase local community, civil society and Red Cross Red Crescent capacity to address the most urgent situations of vulnerability.
- Reduce intolerance, discrimination and social exclusion and promote respect for diversity and human dignity.

Contact information

For further information specifically related to this operation please contact:

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

International Federation of Red Cross and Red Crescent Societies

MDRBZ001 - Belize - Tropical Stork Arthur

Final Financial Report

Selected Parameters	
Reporting Timeframe	2007/1-2008/12
Budget Timeframe	2007/1-2008/12
Appeal	MDRBZ001
Budget	APPEAL

All figures are in Swiss Francs (CHF)

I. Consolidated Response to Appeal

	Goal 1: Disaster Management	Goal 2: Health and Care	Goal 3: Capacity Building	Goal 4: Principles and Values	Coordination	TOTAL
A. Budget	159,000					159,000
B. Opening Balance	0					0
Income						
<u>Other Income</u>						
<i>Voluntary Income</i>	159,000					159,000
C5. Other Income	159,000					159,000
C. Total Income = SUM(C1..C5)	159,000					159,000
D. Total Funding = B + C	159,000					159,000
Appeal Coverage	100%					100%

II. Balance of Funds

	Goal 1: Disaster Management	Goal 2: Health and Care	Goal 3: Capacity Building	Goal 4: Principles and Values	Coordination	TOTAL
B. Opening Balance	0					0
C. Income	159,000					159,000
E. Expenditure	-131,422					-131,422
F. Closing Balance = (B + C + E)	27,578					27,578

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III. Budget Analysis / Breakdown of Expenditure

Account Groups	Budget	Expenditure					TOTAL	Variance
		Goal 1: Disaster Management	Goal 2: Health and Care	Goal 3: Capacity Building	Goal 4: Principles and Values	Coordination		
A							B	A - B
BUDGET (C)		159,000					159,000	
Supplies								
Shelter - Relief	8,000	5,048				5,048	2,952	
Clothing & textiles	17,313	14,316				14,316	2,997	
Food	62,501	43,585				43,585	18,916	
Water & Sanitation	10,760	728				728	10,032	
Utensils & Tools	10,920	8,870				8,870	2,050	
Other Supplies & Services	4,200	6,682				6,682	-2,482	
Total Supplies	113,694	79,229				79,229	34,465	
Transport & Storage								
Storage		10,479				10,479	-10,479	
Distribution & Monitoring	6,000	5,596				5,596	404	
Transport & Vehicle Costs	3,000	122				122	2,878	
Total Transport & Storage	9,000	16,197				16,197	-7,197	
Personnel								
International Staff	1,650	5,118				5,118	-3,468	
Regionally Deployed Staff	2,150	5,778				5,778	-3,628	
National Staff	6,031	1,606				1,606	4,425	
National Society Staff		274				274	-274	
Total Personnel	9,831	12,776				12,776	-2,945	
General Expenditure								
Travel	7,400	7,080				7,080	320	
Information & Public Relation	1,500	202				202	1,298	
Office Costs	2,500	224				224	2,276	
Communications	1,000	3,311				3,311	-2,311	
Financial Charges		2,521				2,521	-2,521	
Total General Expenditure	12,400	13,337				13,337	-937	
Programme Support								
Program Support	14,075	8,449				8,449	5,626	
Total Programme Support	14,075	8,449				8,449	5,626	
Services								
Services & Recoveries		1,433				1,433	-1,433	
Total Services		1,433				1,433	-1,433	
TOTAL EXPENDITURE (D)	159,000	131,422				131,422	27,578	
VARIANCE (C - D)		27,578				27,578		