

DREF operation final report



International Federation
of Red Cross and Red Crescent Societies

Cambodia: Dengue fever outbreak

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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: A DREF allocation of CHF 140,900 (USD 118,000 or EUR 86,000) was made in response to the needs of the tens of thousands at risk of dengue fever in Cambodia. The operation was implemented over a period of just over three months from late July to October 2007. This operation is aligned with the International Federation's Global Agenda Goal 2: Reduced deaths, illnesses and impact from diseases and public health emergencies.

"Dengue is hitting almost all provinces nationwide. We cannot contain the virus with our limited resources; we need foreign help," said Ngan Chanta, head of Cambodia's anti-dengue programme in July 2007. The Cambodian Red Cross's (CRC) prompt access of DREF helped significantly in the country's response to a major outbreak.

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



The dengue fever outbreak mainly affected young children. Prompt Cambodian Red Cross response with the help of DREF funding helped mitigate the situation and save many lives.

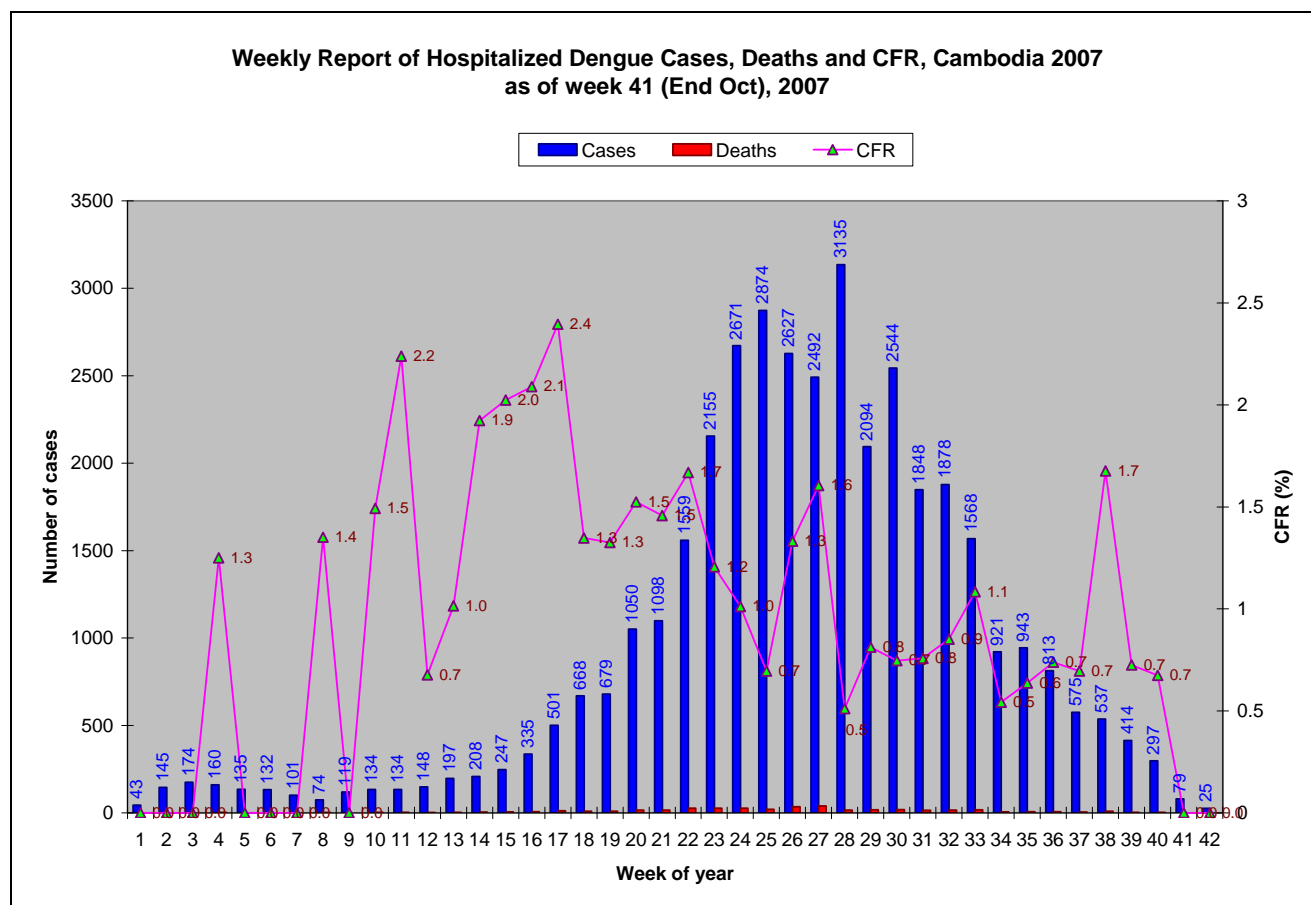
The situation

Since 1962, Cambodia has faced regular dengue fever outbreaks which affect children in areas with concentrated populations. Epidemics were reported in 1983, 1985, 1987 and 1990. Previously the most severe outbreak of dengue fever/dengue haemorrhagic fever (DF/DHF) occurred in 1995 with more than 10,200 cases and 420 deaths, which corresponds to an attack rate of approximately 104 per 100,000 population.¹

¹ Abstract from Dengue Bulletin Volume 21, December-1997, Status of Dengue Control in Cambodia - Dr. Ngan Chantha, PM for Dengue, MoH

2007 has seen the highest number of confirmed cases of DF/DHF since 1983. To date, the official number of reported cases for 2007 has reached 38,531 with 397 deaths (Case Fatality Rate/CFR² 1.0)³. Figures peaked in July which coincided with the launch of the CRC's nationwide campaign to combat DF/DHF. Activities were conducted in collaboration with the Ministry of Health (MoH) with financial support from the Federation's DREF fund and locally raised funds from CRC. Activities included distribution of larvicide to households, promotion of methods for preventing dengue, printing and distribution of information, education and communication (IEC) materials, and environmental clean-up campaigns.

Some of the reasons cited (but not proven) for the high incidence rate for dengue in Cambodia and its neighbouring countries include climate change, increased urbanization due to population movement coupled with a continued lack of knowledge and efforts to prevent dengue by the community. Added to these was the delay in initiating response and launching a preventive operation before the outbreak.



Red Cross and Red Crescent action

In coordination with the National and Provincial Ministry of Health, the Cambodian Red Cross committed to five strategies:

1. Nationwide campaign through its network of Red Cross, Red Cross Volunteers and Youth
2. Integration of DHF into all Red Cross Activities from headquarters to community levels
3. Mass media: television and newspapers
4. Appeals; local and international, DREF via the Federation
5. Collaboration with the MoH, World Health Organisation (WHO), and relevant local partners

² Case Fatality Rate (CFR): a number of people who die of a disease divided by the number of people who have the disease (Sphere)

³ National Centre for Dengue and Malaria Control

Specific Activities

1. Hospital support provided

- In response to the dengue epidemic, the President of the CRC launched a nationwide alert and appealed to local businesses and the general public to support CRC efforts to assist in the national drive to combat dengue fever. There was a generous response and, as a result, the CRC headquarters was able to donate 6,120 bottles of serum to several hospitals including Phnom Penh municipality, National Paediatric hospital, Preah Sihanouk Hospital, Kampong Speu, Kandal, and district-level hospitals.

Support was also given to 1,615 families with children affected by dengue by providing food/non-food kits (such as canned milk, instant noodles, canned soy milk, mosquito nets, blankets, and clothes) and a small amount of money. Red Cross branches in several provinces also raised funds locally which enabled them to provide support to children affected by DF/DHF and the hospitals caring for them. Hospitals supported by the CRC included those mentioned previously: Phnom Penh municipality, National Paediatric hospital, Preah Sihanouk Hospital, Kampong Speu, Kandal, and district-level hospitals. The CRC Kampong Cham branch contributed the sum of USD 10,000 (CHF 11,000 or EUR 6,843) to the provincial paediatric hospital for DF case treatment and management.

- Cambodian Red Cross/French Red Cross gave USD 17,119 (CHF 18,815 or EUR 11,713) to the National Paediatric hospital for staff support and case management

2. Public appeal for voluntary blood donation

During the DHF outbreak, the National Blood Transfusion Centre faced a severe shortage of safe blood and blood products for paediatric hospitals in Phnom Penh. In response to this crisis, the CRC appealed for voluntary blood donation from all government officers in the city. This appeal resulted in the national blood bank receiving a hundred units of blood to supply to paediatric hospitals.

3. Larvicide (Abate) distribution

The DREF funding enabled the CRC, with assistance from the Federation country delegation and regional logistics unit, to procure 35 tonnes of Abate, which arrived in Cambodia in mid-August. The CRC, in coordination with the MoH, distributed Abate in four of the worst affected provinces. Due to exchange rate differences, the Abate cost less than expected. As a result, there is a balance of approximately CHF 3.950 which has been returned to the DREF. Full details are shown in the [accompanying financial report](#).

Summary of Abate distribution to Red Cross branches

	Provinces	Districts	Communes	Village	Household	Abate provided (kg)	Abate dist (kg)	Remaining (kg)
1	Kg. Cham	7	40	521	102,177	11,091	10,998.9	92.1
2	Kandal	6	31	133	50,938	8,612	8,272	340
3	Phnom Penh	7	32	209	225,945	9,051	9,050	1
4	Banthey Meanchey	6	21	136	25,216	6,211	6,199	12
Grand Total		26	124	999	404,276	34,965	34,519.9	445.1 kg Red Cross branches provided to health centres

Up to 1,136 Red Cross volunteers (RCV) throughout the four provinces were provided with training on how to safely distribute Abate to households. Traditional water storage jars were targeted, as a recent study conducted in Kandal province showed that up to 80 per cent of households had the *Aegypti mosquito* breeding in such containers. These containers are heavy, difficult to move and clean, and are abundant across Cambodia.⁴

Health education activities accompanied this activity, utilizing posters and leaflets purchased using DREF funds.

⁴ Information provided by Red Cross Volunteers participating in the clean-up campaign

In total, the RCV succeeded in reaching 404,276 households with Abate and distributed some 20,538 IEC materials throughout 999 villages.

4. Mass media

The CRC worked with the national media to raise public awareness of the issue. The Phnom Penh Municipality Red Cross branch liaised with a local television network to provide broadcasts on dengue prevention. The message called for everyone from all sectors and levels of community to actively participate in the outbreak intervention with the theme of “No larvae, No tiger mosquitoes, No dengue”. The broadcasts reached an audience estimated to be in the tens of thousands.

5. Public Awareness and Clean-up Campaigns

In September, an additional 13 provinces were selected by the CRC to conduct clean-up campaigns including awareness raising of the dangers of dengue, together with the Provincial Department of Health.



Wheel of misfortune: Red Cross volunteers help in the clean-up campaign.

The CRC national headquarters provided USD 500 (CHF 550 or EUR 342) to each provincial branch office to mobilize volunteers. Some 1,040 volunteers took part in this campaign, each receiving a cap and T-shirt, and some small refreshment, covered by the said USD 500 contribution. During this campaign, the volunteers distributed 39,000 IEC materials throughout the 17 provinces. Also contributing to the national effort, the CRC/Danish Red Cross-supported Community-based Health Development Project conducted dengue awareness campaigns in the 50 villages in three provinces and distributed a further 179 posters and 8,555 leaflets.

WORKING IN PARTNERSHIP

Throughout the entire process, the CRC has worked in close collaboration with the Ministry of Health and the WHO at both central and provincial levels. Joint planning and implementation was conducted especially with regard to the distribution of Abate.

In addition, the CRC and the Federation have been invited by the MoH to form a "task force" to look at the long term strategy to reduce the risk of dengue fever. Other members of this task force are WHO, Ministry of Rural Development (MoRD - Department responsible for rural water supply), UNICEF and leading NGOs working in the field of household rainwater harvesting.

The task force will identify local practices currently employed by some households to prevent vector breeding in household water storage jars (e.g. guppy fish, charcoal, net covers) and will improve and encourage the best and most efficient practices as well as try to identify additional effective measures. A communication strategy in which the CRC is involved will be developed to support this programme and it is hoped that the CRC will also be involved in a pilot study to trial-run some of these methods.

FOLLOW-UP ACTIVITY FROM CRC HEADQUARTERS

Staff from the national headquarters health department conducted monitoring visits during the Abate distribution in the four Red Cross branches of, Kandal, Banthey, Meanchey and Kampong Cham provinces and Phnom Penh city. The team met with the selected groups and the wider community, and conducted household interviews to understand the general situation regarding dengue haemorrhagic fever outbreaks in those provinces.

The team learned that communities received most of their information about dengue fever, its prevention and the character of the current disease prevalence from various sources including mass media, RCVs, and village health volunteers as well as through IEC posters and leaflets.

Many of the people in the community thought that the Abate distribution came very late this year and suggested that distribution would have been more effective if conducted before the outbreak started. On the

other hand, the team also learnt of some misconceptions about Abate; a few of villagers would not accept having Abate put in their water jars because they were afraid that it would poison the water and affect their health. Other households, however (i.e. villages in the Kampong Cham and Kandal provinces), placed extra water jars around their houses hoping to receive extra Abate as they expected to get more rain in the coming weeks.

More than 390 people died as a result of dengue, the vast majority of these being young children. Mostly this was due to late and/or inappropriate treatment; many private practitioners did not follow the DHF treatment protocol. Despite the nationwide efforts of the MoH to encourage parents to bring their children for early and free treatment to the health centres, many delayed and/or used traditional or home care methods. Reports suggest that many children died unnecessarily because they were given too much intravenous fluid or paracetamol.

In general, the observation was that most villagers were very happy and appreciated RCV and village health volunteer activities in their communities and believed that dengue cases would be reduced after the Abate distribution campaign.

Conclusion and way forward



The right ingredient: A Red Cross volunteer adds Abate to a container.

In summary, with funding support from Federation on top of the support generated locally, the Red Cross branches around the country were able to respond to and play a significant role in the national campaign to combat this year's outbreak of dengue fever.

The national response was late and many important lessons have been learnt. As such, the MoH together with the MoRD, with support from the WHO and UNICEF, will take the lead in developing a long-term strategy to both reduce the incidence of dengue and to respond more effectively to future outbreaks. The CRC expects to contribute towards the formation of this new strategy at both the national and provincial level.

Experience from this year's outbreak has shown that in order to mitigate the effects of dengue in the future, there will need to be:

1. Consistent promotion of prevention activities throughout the year with an increased focus just before and during the rainy season in order to bring about behaviour change at community level. These activities are being approved by the MoH.
2. An approved "plan of action" that will allow for early recognition and prompt response to future dengue epidemics, led by the MoH, and with a strong and confirmed commitment from their partners.

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 \(NGOs\) 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

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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

MDRKH001 - Cambodia - Dengue Fever

Final Financial Report

Selected Parameters	
Reporting Timeframe	2007/7-2007/12
Budget Timeframe	2007/7-2007/12
Appeal	MDRKH001
Budget	APPEAL

All figures are in Swiss Francs (CHF)

I. Consolidated Response to Appeal

	Health & Care	Disaster Management	Humanitarian Values	Organisational Development	Coordination & Implementation	TOTAL
A. Budget		140,900				140,900
B. Opening Balance		0				0
Income						
<u>Other Income</u>						
DREF Allocations		136,952				136,952
C5. Other Income		136,952				136,952
C. Total Income = SUM(C1..C5)		136,952				136,952
D. Total Funding = B + C		136,952				136,952
Appeal Coverage		97%				97%

II. Balance of Funds

	Health & Care	Disaster Management	Humanitarian Values	Organisational Development	Coordination & Implementation	TOTAL
B. Opening Balance		0				0
C. Income		136,952				136,952
E. Expenditure		-136,952				-136,952
F. Closing Balance = (B + C + E)		0				0

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III. Budget Analysis / Breakdown of Expenditure

Account Groups	Budget	Expenditure					TOTAL	Variance
		Health & Care	Disaster Management	Humanitarian Values	Organisational Development	Coordination & Implementation		
A							B	A - B
BUDGET (C)		140,900					140,900	
Supplies								
Water & Sanitation			72,192				72,192	-72,192
Medical & First Aid	84,700							84,700
Total Supplies	84,700		72,192				72,192	12,508
Transport & Storage								
Storage			655				655	-655
Transport & Vehicle Costs	3,543		4,212				4,212	-669
Total Transport & Storage	3,543		4,867				4,867	-1,324
Personnel								
National Staff	4,794		3,779				3,779	1,015
National Society Staff	2,546		17,412				17,412	-14,866
Total Personnel	7,340		21,190				21,190	-13,850
Workshops & Training								
Workshops & Training			527				527	-527
Total Workshops & Training			527				527	-527
General Expenditure								
Travel	6,298		2,017				2,017	4,281
Information & Public Relation	26,379		19,637				19,637	6,742
Office Costs			750				750	-750
Communications	332		3,025				3,025	-2,693
Financial Charges			-351				-351	351
Other General Expenses	3,149		1,081				1,081	2,068
Total General Expenditure	36,158		26,159				26,159	10,000
Programme Support								
Program Support	9,158		12,018				12,018	-2,859
Total Programme Support	9,158		12,018				12,018	-2,859
TOTAL EXPENDITURE (D)		140,900	136,952			136,952		3,948
VARIANCE (C - D)		3,948			3,948			