

DREF operation final report



International Federation
of Red Cross and Red Crescent Societies

Bolivia: Dengue Outbreak

DREF operation n° MDRBO004
Glide No. EP-2009-000013-BOL
29 October 2009

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 140,437 (USD 119,658 or EUR 95,033) was allocated from the International Federation's Disaster Relief Emergency Fund (DREF) to support the Bolivian Red Cross (BRC) in delivering immediate assistance to 9,000 households (approximately 44,000 beneficiaries).

This DREF allocation provided assistance against the dengue outbreak to 1,841 families directly. The rest of families (approximately 7,100) benefited indirectly through dengue awareness campaigns and clean-up activities. Due to the assistance provided through this DREF operation, approximately 8,941 families are now more aware of how to fight dengue outbreaks and have learned how to recognize the early symptoms.

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Distribution of mosquito nets and jerry cans in the municipality of Chimore, Cochabamba department.
Source: International Federation

The situation

In October 2008, the Bolivian Ministry of Health identified a dengue outbreak in two rural communities in the department of Santa Cruz. These were reported as suspected cases in the city of Santa Cruz de la Sierra. Subsequently, in November and December 2008, cases were reported in two districts in the same department increasing by the end of January 2009 in nine rural communities. The President of Bolivia declared a state emergency on 3 February 2009. The approved decree established priority for the allocation of funds to confront the disease and any other situation due to natural disasters or climate change. Among one of the articles in the decree is the agreement for an Emergency Health Council to fight the dengue epidemic, presided by the Ministry of Health.

The outbreak surpassed the National Health System's capacity mainly due to:

- Massive infestations of the vector throughout the region, which caused a degree of panic among the population.
- An increase in use of non biodegradable containers and a deficient method of disposal of solid waste which created ideal conditions for the breeding of mosquitoes.
- The increase in demand for medical services exceeded the capacity of several health centres.

According to the National Health Information System (Sistema Nacional de Informacion en Salud - SNIS) of the Ministry of Health, most of the suspected cases were reported in the seventh week after the emergency decree with subsequent cases identified in the ninth and tenth weeks.

On 17 June 2009, the National Health Information System reported 60,524 suspected cases of classic dengue within nine departments of the country. A total of 6,998 cases were confirmed by the laboratory of which 63 per cent were from the department of Santa Cruz. The remaining 37 per cent were spread across eight departments in the country. In addition, 190 unconfirmed cases of hemorrhagic dengue fever and 27 deaths were reported in the department of Santa Cruz.

The table below shows the number and type of cases by year reported by the health authorities:

Table 1: Type of cases by year

Year	Classic dengue cases	Laboratory confirmed cases	Hemorrhagic dengue cases confirmed
2004	7,390	682	13
2005	5,213	618	10
2006	2,555	559	20
2007	7,332	2,186	12
2008	6,452	2,159	11
2009 (to date)	60,524	6,998	190

Source: National Health Information System and Epidemiologic Surveillance. Bolivian Ministry of Health.

24 June 2009.

The table above shows an increase in confirmed dengue cases as well as hemorrhagic cases and the table below shows the number of cases by department:

Department	Confirmed Cases
Chuquisaca	312
La Paz	543
Cochabamba	657
Oruro	31
Potosi	22
Tarija	982
Santa Cruz	4,142
Beni	267
Pando	42
Total	6,998

Red Cross and Red Crescent action

Since the beginning of the outbreak the Bolivian Red Cross coordinated activities at the national and departmental levels to respond to the dengue epidemic. The International Federation through its Pan American Disaster Response Unit (PADRU) and the Regional Representation for the Andean Region monitored the emergency and provided technical support to the National Society in the development of the Plan of Action. In addition, activities were linked to a regional epidemic control initiative in order to ensure longer term impact of the emergency response actions. These activities include: the creation of a toolkit for epidemic control, harmonization of community messages, volunteer training and support for awareness-

raising campaigns. A Regional Intervention Team (RIT) member specialized in public health in emergencies was deployed from the Colombian Red Cross Society to provide additional assistance to the BRC.

Coordination meetings were held by the Bolivian Red Cross in the affected areas. Government agencies including the Emergency Committee (Comite de Emergencia – COE), other organizations and BRC local branches participated to coordinate actions and monitor the situation closely in order to avoid duplication of efforts.

In the department of Santa Cruz, the departmental branch of the BRC in Cochabamba provided support to the local branch in Guayaramerin. There were three local coordinators from Cochabamba coordinating the support with all actors involved in the three affected municipalities. Thanks to these meetings, verbal agreements were reached to carry out joint actions in preventing the spread of the vector.

The BRC relief, disaster and health units monitored the emergency through the nine local branches (one in each department). A total of 60 volunteers, 20 in each of the 3 most affected departments of Beni, Cochabamba and Santa Cruz, were mobilized and trained to provide support during the emergency response.

The Bolivian Red Cross and the Swiss Red Cross coordinated relief activities under the project known as “Plan 3000”. Plan 3000 is an urban settlement located in the department of Santa Cruz, where people were affected by floods during 1985. The area is characterized by high levels of poverty and its inhabitants are therefore extremely vulnerable to the dengue outbreak.

The BRC focused this DREF operation on promoting health and implementing preventive measures against dengue, raising awareness through community activities along with the health sector in the departments of Santa Cruz, Beni and Cochabamba.

Progress towards objectives

Relief distributions (food and basic non-food items)

Objective: The most vulnerable families with small children in the departments of Beni and Cochabamba will receive essential relief items.

Activities completed:

- Coordination meetings with local authorities to identify beneficiaries.
- Completion of rapid emergency needs and capacity assessments.
- Distribution of insecticide-treated mosquito nets and jerry cans to families at high risk.
- Monitoring and evaluation of the relief activities and reporting on relief distributions.
- An exit strategy was developed.

Originally, the BRC had planned to distribute mosquito nets through the three local branches in the affected municipalities in the departments of Beni, Cochabamba and Santa Cruz. As the government decided to distribute relief items to those affected in Santa Cruz, the distribution plans were modified. Relief support is now focused on the departments of Beni and Cochabamba (the municipality of Chimore) to avoid duplication of efforts, as these did not receive support from the government and other organizations responded in different areas.

Impact:

A total of 1,200 insecticide-treated mosquito nets were dispatched from the International Federation’s Regional Logistics Unit in Panama to the Bolivian Red Cross. Additionally, the National Society locally procured 1,500 jerry cans. The relief items were distributed in the departments of Beni and Cochabamba (the municipality of Chimore). The table below shows the number of children, women and men benefited by the mosquito nets and jerry cans:

People Reached			
Female	1,260	Boys and girls under 5 years of age	690
		Youth from 5 to 18 years of age	346
Male	1,934	Youth 18 years and older	367
		Adults (59 years and younger)	1252
Total	3,194	Elderly (60 years and older)	539

The targeted communities were selected based on the level of affectation. Four of these communities were located in rural areas: Cesarzama, Senda III, Senda B and Senda D. All of these communities are located in the municipality of Chimore in the department of Cochabamba. The families with the highest level of vulnerability were identified in these areas based on their economic situation, number of children and sick family members. The rationale is that small children and sick persons would normally spend a greater amount of time in bed during daytime, thus benefitting from the use of the insecticide-treated mosquito nets, since dengue is transmitted by mosquitoes that bite in the day. The average number of people per family was 6 in a range of 12 to 2 members.

The DREF allocation also covered per diem and accommodation of volunteers supporting the operation and fuel for mobilization of volunteers and transportation of equipment, as well as costume fees for the 1,200 mosquito nets.

The remaining mosquito nets and jerry cans were distributed in 8 health and 7 educational centres located in rural areas of the department of Cochabamba since in the department of Beni the government provided relief support:

Health centres	Mosquito nets	Jerry cans	Educational centres	Jerry cans
Health centre San Juan de Dios	4	6	Cesarzama	7
Sanitary station Puerto Aurora	2	2	Senda II	7
Sanitary station Entre Rios	2	2	Tacuara Entre Rios	10
Sanitary station El Carmen	2	2	Senda B	8
Sanitary station Santa Isabel	2	2	Senda D	10
Posta Sanitaria San Andrés	2	2	Senda E	5
Sanitary station Estaño Palmito	2	2	Senda F	7
Sanitary station La Misión	2	2		
TOTAL	18	20		54

Emergency health

Objective: 9,000 houses in the municipalities of 1 de mayo, Guayamerin and Chimore will be fumigated once a month during three months.

Activities completed:

- Bidding and procurement of equipment to fumigate houses.
- Training of volunteers on the proper use of the fumigating equipment.
- Coordination with local authorities in the three benefiting municipalities.
- Coordination of fumigation rounds with the Ministry of Health
- Fumigation of houses in the three selected municipalities.

Impact:

The BRC procured 15 sets of fumigation equipment and distributed 5 per department to the local branches. Workshops were carried out on the use of the equipment in each community. Thirty volunteers were trained in Chimore, 10 in Santa Cruz and 5 in Guayaramerin. The areas for fumigation were selected by the local and community authorities from each municipality.

The following table shows the total number of people benefited by the vector control fumigation activities:

People reached			
Female	4,481	Children less than 5 years of age	1,336
		Youth 5 to 18 years of age	984
Male	4,619	Older than 18 years of age	1,856
		Adults (less than 59 years of age)	4,166
Total	9,100	Elderly (older than 60 years of age)	758

Hygiene promotion

Objective: Increased awareness and prevention of dengue through the description of the symptoms to the most vulnerable through an awareness-raising campaign.

Activities completed:

- Identification of three community coordinators, one for each department.
- Development of an Emergency Health training workshop focused on outbreak control.
- Identification and training of 60 BRC volunteers and 45 Ministry of Health workers in the prevention of dengue.
- Deployment of a RIT member specialized in public health in emergencies.
- BRC coordination with local authorities in the design and implementation of the awareness-raising campaign.
- Agreements with private companies and radio media to promote the awareness-raising campaign.
- Launching of a national advertising campaign, including brochures with relevant information.
- Appointing of a health consultant to train BRC volunteers in the prevention of dengue.
- Monitoring and evaluation.

Impact:

A total of 67 volunteers from the branches of Cochabamba, Beni and Santa Cruz were trained in control of vector borne diseases, awareness-raising through social mobilization and dengue prevention measures. The International Federation's "Volunteers' Manual and Toolkit for Epidemic Control" was piloted during this operation. The table below shows the number of men and women trained and ages:

People reached			
Female	47		
		Youth 5 to 18 years of age	30
Male	20	Older than 18 years of age	36
		Adults (less than 59 years of age)	1
Total	67		

In addition, personnel working in health centres in Chimore (Cochabamba) and Guayaramerin (Beni) received training in vector control for the dengue epidemic. The following table shows the number of personnel trained by age and gender:

People reached			
Female	12		
		Youth 5 to 18 years of age	10
Male	11	Older than 18 years of age	13
		Adults (less than 59 years of age)	
Total	23		

Campaign and cleaning activities were carried out in coordination with the sanitary authorities and communities. These included educational activities, awareness-raising in dengue prevention, identification and elimination of dengue mosquito breeding grounds and elimination of larvae. Approximately, 214 families were reached through this activity.

Visibility material was used including a television spot that had been used in last year's dengue prevention campaign. Two radio spots were designed as well as leaflets, notebooks, stickers and posters to promote the fumigation activities and hygiene practices.



Sticker for the jerry cans and cover for notebooks. Source: Bolivian Red Cross



Conclusion

Lessons learnt:

All the objectives proposed by the Bolivian Red Cross' plan of action in the areas of relief distribution, emergency health and hygiene promotion were completed successfully in the departments of Beni and Cochabamba. A total of 12,294 people were directly reached by this operation through the relief items distributed and fumigation activities. Approximately 31,000 people benefited indirectly from the dengue awareness-raising campaign activities which included radio and television spots.

The insecticide-treated mosquito nets and jerry cans distributed to the most vulnerable families (especially those with children) met the needs of the people since it assisted them to prevent the spread of dengue.

Thanks to previous operations carried out by the BRC (Bolivia Floods 2007), coordination at all levels contributed to the effective implementation of the entire BRC plan of action. During the operation, coordination took place with government actors, including the COE at the national and local authority level, the Civil Defence, and the Ministry of Health and other humanitarian actors such as the Pan American Health Organization (PAHO), World Vision and community organizations working at the local level. Working with community organizations is considered an essential and effective way of working on activities with communities in the provision of assistance. This demonstrates the importance of working together with other leading agencies in order to avoid duplication of efforts and therefore reach more affected people.

The support of BRC **volunteers** throughout the operation was invaluable. In addition, 67 volunteers from the local branches of Cochabamba, Beni and Santa Cruz were trained in control of vector-borne diseases and community awareness activities in dengue prevention measures. The capacity of the National Society has been strengthened and the BRC is better prepared for future dengue outbreaks. These activities were intentionally linked to those underway in regional epidemic control initiative, with the support of the International Federation and ECHO, aiming to increase National Society capacity to respond to future epidemic outbreaks. The regional initiative will continue until the end of 2009 and is expected to ensure longer term impact of the actions carried out.

Challenges

At the beginning of the emergency the Bolivian Red Cross had a shortage of personnel; therefore, the International Federation through its Pan American Disaster Response Unit deployed a RIT member specialized in public health in emergencies in order to support the BRC. Additionally, the BRC experienced delays during the clearing of the relief items with customs causing re-scheduling of activities. Nevertheless, the operation was completed successfully.

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

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International Federation of Red Cross and Red Crescent Societies

MDRBO004 - Bolivia - Dengue

Final Report

Selected Parameters	
Reporting Timeframe	2009/03-2009/10
Budget Timeframe	2009/03-2009/06
Appeal	MDRBO004
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	140,437					140,437
B. Opening Balance	0					0
Income						
<u>Other Income</u>						
Voluntary Income	124,561					124,561
C5. Other Income	124,561					124,561
C. Total Income = SUM(C1..C5)	124,561					124,561
D. Total Funding = B + C	124,561					124,561
Appeal Coverage	89%					89%

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	124,561					124,561
E. Expenditure	-124,561					-124,561
F. Closing Balance = (B + C + E)	0					0

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Reporting Timeframe	2009/03-2009/10
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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)		140,437					140,437	
Supplies								
Clothing & textiles	22,100	6,413					6,413	15,687
Utensils & Tools	3,510	3,015					3,015	495
Other Supplies & Services	40,007	43,369					43,369	-3,362
Total Supplies	65,617	52,797					52,797	12,820
Transport & Storage								
Storage		1,684					1,684	-1,684
Distribution & Monitoring	5,849	3,996					3,996	1,853
Transport & Vehicle Costs	5,264	1,142					1,142	4,122
Total Transport & Storage	11,113	6,822					6,822	4,291
Personnel								
Regionally Deployed Staff	12,282	9,767					9,767	2,515
National Society Staff	13,862	16,773					16,773	-2,911
Consultants	995							995
Total Personnel	27,140	26,540					26,540	599
Workshops & Training								
Workshops & Training	5,264	9,412					9,412	-4,148
Total Workshops & Training	5,264	9,412					9,412	-4,148
General Expenditure								
Travel	12,634	6,967					6,967	5,667
Information & Public Relation	5,254	8,797					8,797	-3,543
Office Costs	526	416					416	110
Communications	1,755	3,111					3,111	-1,356
Financial Charges	706	1,304					1,304	-598
Total General Expenditure	20,875	20,595					20,595	280
Programme Support								
Program Support	9,128	8,076					8,076	1,053
Total Programme Support	9,128	8,076					8,076	1,053
Services								
Services & Recoveries	1,300	319					319	981
Total Services	1,300	319					319	981
TOTAL EXPENDITURE (D)	140,437	124,561					124,561	15,876
VARIANCE (C - D)		15,876					15,876	