

DREF operation final report



Mozambique: Cholera Outbreak

DREF operation n° MDRMZ007
GLIDE n°EP2010-000044-MOZ
23 November, 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 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.

CHF 121,525 (USD 113,383 or EUR 84,837) was allocated on 9 April 2010 from the International Federation of Red Cross and Red Crescent's (IFRC's) Disaster Relief Emergency Fund (DREF) to support Mozambique Red Cross Society (CVM¹) to deliver immediate assistance to some 15,000 people (3,000 families).

Summary:

The cholera outbreak, which started in January 2010 claimed 61 lives with 4,600 cases reported resulting in a case fatality rate (CFR) of 1.3 per cent by the end of the reporting period. Most of the cholera cases were reported in Cabo Delgado, Niassa, Nampula, Zambézia and Sofala Provinces.

The outbreak was exacerbated by poor sanitation and limited access to health facilities compounded by the seasonal heavy rains, which increased the risk of water-borne diseases and vector-borne diseases

such as malaria. Further complicating the situation was the widespread flooding along the Buzi, Zambézia, Licungo and Save River Valleys affecting approximately 17,000 people in Zambézia, Tete, Manica and Sofala Provinces. Some communities experienced a double disaster (flooding and cholera) especially in Zambézia and Sofala Provinces.



A CVM volunteer demonstrating water treatment to cholera affected communities. Photo CVM.

¹ CVM Portuguese for Mozambique Red Cross "Cruz Vermelha de Mocambique"

The IFRC provided CVM with emergency funding (CHF 282,067) under operation ([MDRMZ006](#)) to enable the National Society to support government efforts in providing relief in terms of moving people to safer grounds, shelter material, promoting hygiene, ensuring clean water supply and sanitation facilities.

The DREF support in response to cholera outbreak was used for rapid assessments, treatment of water, hygiene promotion activities, information, education and communication (IEC) activities, and strengthening the disaster response capacity of the Red Cross branches. The relief operation which began in April 2010 was completed in June 2010.

The major donors to the DREF were 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>](#)

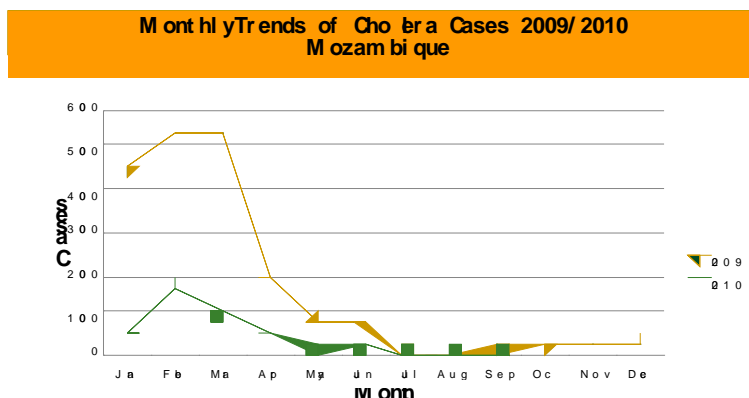
The situation

The cholera outbreak in Mozambique started in 2009 and recorded 19,310 cases and 155 deaths, with a CFR of 0.8 per cent (January to November 2009). During that period, Zambézia, Cabo Delgado, Nampula and Manica Provinces were the most affected. Although the cholera cases drastically decreased between November and December 2009, the heavy rains experienced in the first quarter of 2010 resulted in a renewed cholera outbreak. According to reports from the Ministry of Health (MoH), between January and March 2010, Cabo Delgado, Niassa, Nampula, Zambezia and Sofala cumulatively recorded 3,188 cases and 44 deaths with a CFR of 1.4 per cent. The most affected province of Zambézia had a cumulative total of 1,295 cases and 19 deaths but the highest CFR was reported in Nampula Province with a CFR of 2.4 percent as shown in Table 1 below.

Table1: Cholera cases and deaths recorded from January to March 2010

Province	Reported Cases	Reported Deaths	Case Fatality Rate
Sofala	291	1	0.3
Zambézia	1,295	19	1.5
Nampula	578	14	2.4
Cabo Delgado	818	8	1.0
Total	3,198	44	1.4

Source: Department of Epidemiology (MoH)



The cholera situation began to stabilize in May, with sporadic cases reported in the provinces of Zambézia Nampula and Cabo Delgado although there was a marked increase in cases between the period March to May 2010 (904 cases and 12 deaths). From May to the beginning of October 498 cases were reported. These cases were sporadic in nature indicating localized outbreaks. In May 2010, the province of Cabo Delgado recorded a weekly average of 25 new cases but these declined to an average of 7 cases per week by October. These trends are shown in the graph below.

During the same period, Mozambique experienced heavy rains mainly in northern, southern and central parts of the country. The heavy rains compelled the local authorities to release water from the major dams in order to protect the economic infrastructure, which aggravated the flood situation in the surrounding areas. It was estimated that 17,000 people were affected, whilst 130,000 were at risk.

The floods disrupted infrastructure such as road roads. The road linking Beira to Chimoio was cut off between Tica and Mutua, in Dondo district. Media reports indicated that five people lost their lives in Buzi district trying to cross the flooded roads. The water levels of Zambézia, Púngue and Buzi rivers rose at an alarming rate, and affected the Buzi, Nhamatanda and Chemba in Sofala, Mutarara and Cabora Bassa districts and Tete City in Tete Province, Mopeia and Morrumbula districts in Zambézia and Sussundenga and Tambara in Manica provinces.

The high population movement between provinces also increased the risk of spreading cholera. The affected provinces and districts are in cholera prone areas and located in areas with informal commercial routes, which further worsened the situation

Coordination and partnerships

As auxiliary to the local authorities, CVM supported the government efforts in responding to the cholera outbreak and ensuring better living conditions for the vulnerable people. Regular coordination meetings were held at all levels to ensure joint planning, implementation, monitoring and information sharing among the stakeholders. At the meeting with Ministry of Health (MoH) officials held on the 10 February 2010, it was decided to primarily focus on social mobilization, active surveillance and water treatment.

The IFRC provided emergency response funding to support CVM, which was faced with a shortage of resources for the emergency operation. Meanwhile, the MoH requested the assistance of CVM volunteers to support the relief operation. The purpose of this DREF was therefore to ensure the active involvement of CVM in social mobilization, promoting water treatment and supply, dissemination of cholera prevention messages, hygiene promotion and construction of latrines. The IFRC Southern Africa Regional Representation office (SARRO) provided technical support through the disaster management and health and care departments.

Red Cross and Red Crescent action

In response to the cholera outbreak, CVM mobilised 2,164 volunteers in 10 provinces to provide assistance to government efforts in the cholera relief operation. Guided by the cholera contingency plan the volunteers provided assistance at the cholera treatment centres (CTCs) and communities through water treatment, distribution of oral rehydration solutions (ORS), hygiene promotion, social mobilisation and construction of pit latrines.

Jointly with the MoH officials, the CVM disaster response team conducted monitoring missions to Gurue district in Zambézia province and set up four CTCs. These actions were financially supported by the government. Twenty volunteers from Niassa Province, 20 from Cuamba City, 25 in Lurio (Cuamba district), 21 in Mecanhelas City, and 25 in Cumulike (Mecanhelas district) carried out cholera prevention activities and helping at the CTCs in Cuamba, Mecanhelas Lurio, Etatare, Cuamba and Mecanhelas districts.

The Niassa Province branch received a donation of 4,100 bars of soap from Oxfam for distribution to affected communities. In response to the acute diarrhoea cases, CVM assisted approximately 1,865 people in, Cabo Delgado, Sofala, Zambezia and Niassa Provinces of which 950 were referred to CTCs for treatment.

Since the beginning of the cholera outbreak, CVM mobilized, trained and provided refresher training to 831 volunteers and community leaders who supported relief activities in ten provinces (Maputo City, Inhambane, Sofala, Manica, Tete, Zambezia, Nampula, Cabo Delgado, Niassa and Maputo). The training consisted of basic management of cholera cases, detecting cholera symptoms, waste management, water treatment, family counselling and hygiene promotion.

The trained CVM volunteers conducted door-to-door cholera education campaigns and made referrals of cholera cases to hospitals. They were also involved in hygiene promotion, construction of pit latrines, and promotion of construction of landfills in the most affected communities. Overall a total of 452,537 people benefited from the operation.

Progress towards objectives

Water, Sanitation, and Hygiene Promotion

Objective: The spread of cholera and other water-borne diseases is prevented through the provision of safe water, adequate sanitation and promoting observance of good hygienic behaviour.

Activities Planned

- Conduct rapid and needs assessments in the affected areas in coordination with the MoH and the UN health cluster (Nhamatanda district in Sofala Province; Pemba, Chiure, Mecufi, Macomia and Montepuez districts in Cabo Delgado Province; Cuamba and Mecanheles districts in Niassa Province; Gurue, Milange and Namarrói districts in Zambézia Province and; Malema and Mecumburri districts in Nampula Province).
- Mobilise and train volunteers in activities aimed at preventing and controlling cholera.
- Water treatment and distribution to affected communities.
- Assist communities in the construction and promoting the use of 500 household latrines.
- Train communities in the safe use of household water treatment chemicals.
- Distribute water treatment chemicals (*Certeza*) affected households.
- Carry out hygiene promotion campaigns among affected.
- Distribute hygiene kits (mainly soap) to affected households.

Impact

Planned Activity	Target	Achieved	Remarks
Volunteer Mobilisation and training.	10 Provinces	2,164 volunteers mobilised and trained on health education, cholera control, water treatment and hygiene promotion.	The training was performed by CVM using visual aid materials from WHO/MoH and UNICEF/MoH.
Water treatment and distribution of chlorine.	Affected communities in 10 provinces.	A total of 3,973 chlorine packages (<i>Certeza</i>) were purchased and distributed and approximately 225,722 people benefitted from water treatment.	The use of <i>Certeza</i> (liquid chlorine) was widely approved in most provinces due to aggressive mass communication campaigns on TV and radio.
Construction of traditional pit latrines.	500 households in affected areas.	A total of 5,057 people (over 1,000) households benefitted from the construction of traditional pit latrines.	CVM volunteers constructed traditional latrines without cement slabs as the remoteness of the affected areas would have complicated the construction of cement slabs.
Hygiene promotion.	Affected communities in 10 provinces.	CVM conducted a total of 2,143 hygiene promotion sessions reaching an estimated 134,725 people. About 3,930 people benefitted from the construction of waste disposal pits.	Different methods of hygiene promotion were used such as drama groups and mothers' clubs. Home visits and regular talks on hygiene at CTCs as well as in markets and schools were also conducted.

A summary of health education and water treatment interventions by province is shown in Table 2 below.

Table 2: Summary of health education and water treatment by province

Province	Volunteers	Health Education		Water chlorination
		No. of sessions	Beneficiaries	Beneficiaries
Maputo City	75	32	1,200	15,000
Maputo	76	75	3,500	3,500
Inhambane	30	60	3,000	21,500
Sofala	32	475	62,275	3,763
Manica	90	94	5,006	10,596
Tete	149	12	780	9,276
Zambézia	89	31	2,800	54,000
Nampula	50	121	6,338	6,833
C. Delgado	120	702	48,229	100,165
Niassa	120	541	1,597	1,089
TOTAL	831	2,143	134,725	225,722

Impact:

As a result of the interventions in water and sanitation, target communities were provided with safe water, improved sanitation and targeted hygiene messaging leading to a reduction in the spread of cholera in target communities. In addition there were more permanent improvements (especially in regards to sanitation), which will have a more long-lasting impact in the reduction of future spread of diarrhoeal diseases amongst the vulnerable communities.

Challenges:

During the relief operation in the province of Niassa (District Cuamba-Lurie), an incident related to misinformation regarding cholera infection occurred. According to local rumours, chlorine was perceived to be the cause of cholera and CVM volunteers were perceived as agents contracted to spread cholera. This threatened the security of CVM volunteers and led to the suspension of activities at the local CTC and the withdrawal of CVM volunteers from the area. The prompt response and intervention of Government and District Health Directorates helped to normalise the situation.

As a strategy to end these rumours, the provincial CVM leadership trained community leaders in water treatment and used them to counteract the false rumours. This strategy was successful and led to a stoppage of threats to CVM staff and acceptance of chlorination by affected communities.

Community Health

Objective: To reduce the risk of communicable diseases (especially diarrhoeal diseases) through community health activities focused on the community-based health and First Aid (CBHFA) approach.

Activities Planned

- Carry out CBHFA activities at CTC and communities through the 550 trained volunteers.
- Health promotion campaigns focusing on hygiene promotion and targeting 15,000 people.
- Support and provide printed and other materials to be used in the health promotion campaign (such as posters, flyers, manuals, educational materials).
- Provide the CTC and community members with ORS.

Achievements:

Planned Activity	Target	Achieved	Remarks
Carry out community-based health and First Aid (CBHFA) activities at CTCs and communities through 550 trained volunteers.	Affected communities in 10 provinces.	Case identification and referral and transportation of cases to hospitals or CTCs. 92,090 people from 18,418 households benefitted from home visits.	MoH established CTCs that were supported by CVM volunteers who conducted activities such as nursing support, chlorine preparation, family counselling and general waste management.
Carry out health promotion sessions.	15,000 people.	About 18,418 people were reached through home visits.	Different methods of health promotion were used such as drama groups, mothers' clubs and home visits.
Support and provide printed and other materials to be used in the health promotion campaign (such as posters, flyers, manuals, educational materials).	Affected communities in 10 provinces.	A total of 20 megaphones were purchased for social mobilization and health education. In addition 1,772 leaflets and 190 posters on cholera education were produced in local languages and distributed to affected communities.	CVM conducted regular talks on hygiene at CTCs as well as in markets and schools.
Distribution of oral rehydration solution (ORS) and soap at CTCs and to community members at large.	Affected communities in 10 provinces.	A total of 2,059 packages of Oral Rehydration Solution (ORS) were distributed. A total of 4,100 bars of soap were distributed in Niassa Province.	

A summary of home visits by province is shown in the Table 3 below.

Table 3: Summary of CBHFA home visits by province

Province	Maputo City	Maputo	Inhambane	Sofala	Manica	Tete	Zambezia	Nampula	Niassa	Cabo Delgado
Volunteers	75	76	30	32	90	149	89	50	120	120
Visits	1	350	150	2,123	697	245	10	529	9,770	4,543
Beneficiaries	5	1,750	750	10,615	3,485	1,225	50	2,645	48,850	22,715

Impact:

Out of the 500,000 people targeted in cholera affected areas, the relief operation succeeded in reaching 90.5 per cent of the target population (about 452,532 people). Monitoring activities are still ongoing to prevent the outbreak of new cases, given the imminent rains expected to start in October. There was a noticeable decline in cholera cases between 2009 and 2010, which can be attributed to positive behaviour change as a result of the hygiene promotion campaigns conducted by CVM volunteers.

CVM will continue carrying out social mobilization activities in the affected communities and the involvement of community leaders on preventive measures and the treatment of water with chlorine to ensure community ownership and uptake of the interventions.

Communications

Objectives: The profile and position of the National Society and the IFRC are enhanced, leading to increased availability of funds and other resources to support this and future emergency operations.

Activities Planned:

- News releases, fact sheets, video and photographs on the relief operation are developed and shared with media and key stakeholders.
- Direct outreach will be coordinated with CVM and conducted with national and international media.

Achievements

The steady flow of timely and accurate information between agencies in the field and other major stakeholders facilitated the successful implementation of the activities under this DREF operation, profiling the National Society and increasing funding and technical support for the National Society.

Conclusion

The support provided by this DREF enabled CVM to complement MoH efforts in responding to the cholera outbreak. CVM was able to purchase relief materials, train volunteers, and provide transportation to communities and incentives to volunteers. CVM was the main organisation, which supported governments' efforts to ensure successful implementation of the cholera relief operation. Using its network of volunteers CVM was able to reach people in the most remote of areas.

Weekly participation in the health sector enhanced the visibility of CVM and helped in the planning of a multi-sectorial implementation plan in the fight against cholera. In these meetings, priority districts were selected according to the epidemiological situation and each partner was assigned specific tasks in response to the cholera outbreak.

Social mobilization proved to be a successful method to promote individual and collective hygiene and sanitation, to prevent environmental degradation, to promote water treatment and conduct health education through public talks and drama groups. This was complemented by the dissemination of key messages through community radio stations, among other methods available in the communities.

How we work

All IFRC 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 IFRC'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 IFRC'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

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

MDRMZ007 - Mozambique: Cholera 2010

Appeal Launch Date: 07 apr 10

Appeal Timeframe: 07 apr 10 to 07 jul 10

Final Financial Report

Selected Parameters	
Reporting Timeframe	2010/04-2010/07
Budget Timeframe	2010/04-2010/07
Appeal	MdRMZ007
Budget	APPEAL

All figures are in Swiss Francs (CHF)

I. Consolidated Funding

	Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL
A. Budget	124,385					124,385
B. Opening Balance	0					0
Income						
Other Income						
<i>Voluntary Income</i>	121,525					121,525
C6. Other Income	121,525					121,525
C. Total Income = SUM(C1..C6)	121,525					121,525
D. Total Funding = B + C	121,525					121,525
Appeal Coverage	98%					98%

II. Movement of Funds

	Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL
B. Opening Balance	0					0
C. Income	121,525					121,525
E. Expenditure	-117,744					-117,744
F. Closing Balance = (B + C + E)	3,781					3,781

International Federation of Red Cross and Red Crescent Societies

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III. Consolidated Expenditure vs. Budget

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)		124,385					124,385	
Supplies								
Water & Sanitation	28,000							28,000
Medical & First Aid	16,000							16,000
Teaching Materials	15,000							15,000
Utensils & Tools	5,000							5,000
Total Supplies	64,000							64,000
Transport & Storage								
Transport & Vehicle Costs	5,000							5,000
Total Transport & Storage	5,000							5,000
Personnel								
Regionally Deployed Staff	3,550							3,550
National Society Staff	17,000							17,000
Total Personnel	20,550							20,550
Workshops & Training								
Workshops & Training	18,150							18,150
Total Workshops & Training	18,150							18,150
General Expenditure								
Information & Public Relation	7,000							7,000
Office Costs	400							400
Communications	1,200							1,200
Total General Expenditure	8,600							8,600
Contributions & Transfers								
Cash Transfers National Societies		110,558					110,558	-110,558
Total Contributions & Transfers		110,558					110,558	-110,558
Programme Support								
Program Support	8,085	7,186				7,186		899
Total Programme Support	8,085	7,186				7,186		899
TOTAL EXPENDITURE (D)	124,385	117,744				117,744		6,641
VARIANCE (C - D)		6,641				6,641		