

Final report



International Federation
of Red Cross and Red Crescent Societies

SUDAN: CHOLERA

Final report

Emergency appeal n° MDRSD001

21 August 2008

Appeal target (current): CHF 1,015,000 (USD 879,484 or EUR 736,438)

Final Appeal coverage: 31%.

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

Appeal history:

- **Preliminary Emergency Appeal** – <http://www.ifrc.org/docs/appeals/06/MDRSD001.pdf> – was launched on 2 March 2006 for CHF 1,015,000 (USD 879,484 or EUR 736,438) to assist 90,000 beneficiaries for 3 months.
- **Operations Update no. 1** – <http://www.ifrc.org/docs/appeals/06/MDRSD00101.pdf> – dated 16 June 2006, extended the operation timeframe by 2 months and confirmed the Preliminary Appeal as a Full Appeal.
- **Operations Update no. 2** – <http://www.ifrc.org/docs/appeals/06/MDRSD00102.pdf> – dated 4 August 2006, extended the area of operation to cover the entire territory of Sudan.
- **Operations Update no. 3** – <http://www.ifrc.org/docs/appeals/06/MDRSD00103.pdf> – further extended the operational timeframe by 4 months until the end of December 2006.
- Disaster Relief Emergency Funds (DREF) allocated: CHF 100,000.

Related Emergency Appeals:

- **Southern Sudan:** Humanitarian Assistance to Returnees and Affected Communities; 05EA025 – <http://www.ifrc.org/docs/appeals/05/05EA02502.pdf>
- **Sudan:** Floods; MDRSD002 – <http://www.ifrc.org/docs/appeals/06/MDRSD002.pdf>

The situation

The first cases of acute watery diarrhoea (AWD) in the south of Sudan were reported on 6 February 2006. *Vibrio Cholera Inaba* was subsequently laboratory confirmed in several stool samples by the African Medical and Research Foundation (AMREF) laboratories in Nairobi. By 20 February 2006, health authorities had reported a total of 3,478 cases and 75 deaths, all concentrated in the Juba and Yei towns of South Sudan (some 1,614 of these cases, or 30 deaths, occurred in Yei, while 1,864 cases, or 45 deaths, occurred in Juba). The World Health Organization (WHO) reported a total number of 4,906 cases and 89 deaths (a case fatality rate of 1.81 per cent) by 1 March 2006.

The disease was also reported in other towns and locations, including the towns of Torrit and Kapoeta, east of Juba, and from Bor, north along the river Nile. Bor was the target location for a returning population of some 20,000 people (along with their cattle) of which 5,000 were accommodated in the Lologo transit camp just outside of Juba, where the Sudanese Red Crescent Society (SRCS) has been operational. Densely populated areas, such as camps were of particular concern. Subsequently, the Ministry of Health (MoH) confirmed cases of acute watery diarrhoea and cholera in 9 states of northern Sudan including South Kordofan, North Kordofan, Darfur and Khartoum states. The confirmation of cholera in Kosti, White Nile State, was of major concern as the town was a major crossroad for people moving north, south and west thus increasing the potential for further spreading of cholera.

Based on preliminary assessments and available information, the SRCS, with support from the International Federation, launched an emergency response on 2 March 2006 to urgently address the following:

- Water and sanitation (WatSan) needs for an estimated 90,000 beneficiaries for three months, initially in southern Sudan. Cholera treatment supplies such as chlorine powder, cholera packs, and water purification tablets were distributed to affected communities. The operation later expanded to cover the entire territory of Sudan.
- Provision of technical health capacity to strengthen the immediate response undertaken by the SRCS and its local partners.
- Conduction of further assessments to determine other urgent needs and required action.
- Social mobilization and health promotion activities in Juba and other affected areas as needed.
- Training of local Red Crescent volunteers in five branches to further increase the outreach of the programme. In the north, the strategy of community participation led by volunteer training – which included health, hygiene and infection surveillance strategies – continued, particularly in South Kordofan.
- Timely and effective technical support to improve communications between branches in the south, as well as between the Juba sub-delegation and Khartoum-Nairobi Regional Delegation (now the Eastern Zone)-Geneva.

To ensure the continued development and implementation of the community-based approach, the Emergency Appeal and budget was revised to reflect the operational realities and ensure longer term development in the following areas:

- Building the capacity of the SRCS branches to effectively respond to health emergencies.
- Strengthening the local coping capacity through community preparedness activities by providing structured and sustainable assistance to the SRCS branches as well as the communities they support.
- Water and sanitation development in southern Sudan to contribute towards overcoming the current limitations of the water system. Juba town was especially susceptible; as the administrative centre of Government of southern Sudan, it is expected to be a major population-growth area in the south.

Coordination

The SRCS and the Sudan delegation attended cholera taskforce meetings in Juba and the northern states – whose members include the Federal Ministry of Health and WHO – and liaised with both partners to ensure maximization of resources. Regular communication was maintained with government departments, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), UN Children's Fund (UNICEF), CARE, Save the Children, and the United States Agency for International Development (USAID), where WatSan issues surrounding AWD and cholera were discussed.

Joint Sudanese Red Crescent Society, Federation and MoH assessment teams were dispatched to Central Equatoria on 16-17 August. Based on the findings of the assessments, a concrete plan of action was drawn up by the SRCS. The SRCS jointly participated in activities coordinated by the UN High Commission for Refugees (UNHCR) by distributing non-food items in returnee camps around Juba. In addition, the SRCS is an avid participant in the Return and Reintegration Working Group, co-chaired by South Sudan Relief and Rehabilitation Commission (SRRC) and UNHCR.

The Federation facilitated coordination between the Movement partners including the SRCS, Austrian Red Cross, German Red Cross, Netherlands Red Cross and the Yiol consortium (Norwegian Red Cross, Swedish Red Cross and Swiss Red Cross¹) to maximize the effectiveness of resources available. The Juba sub-delegation, in the absence of the SRCS south secretariat at that particular period, took a lead role in the Cholera Taskforce that was entrusted with the chlorination of the town's borehole and collected river water. The taskforce comprised of municipal authorities and several international non-governmental organizations.

Red Cross and Red Crescent action

The SRCS Juba branch quickly mobilized 90 volunteers and formed house-to-house hygiene promotion teams to circulate in the residential areas of Juba. More than 8,000 households were visited by 27 February 2007 just three weeks after the first cholera case was detected – covering a total of 40,000 people, or 50

¹ The Swiss Red Cross left the Yiol consortium in January 2007.

percent of the estimated population. Additional teams of volunteers undertook cleaning operations in the marketplaces, and provided food and drinks for teams chlorinating wells and other water sources. The SRCS also set up systems to monitor the situation with the aim of ensuring a timely response to further outbreaks if required.

The Federation supported the SRCS by launching a preliminary Emergency Appeal to provide immediate support to respond to the cholera outbreak for initial period of 3 months. The operation focused on immediately containing the cholera outbreak in southern Sudan, and limiting the spread of the disease among at-risk populations. CHF 100,000 was allocated from the Federation's Disaster Relief Emergency Fund to start this operation. Part of this allocation was used to immediately transport supplies (water purification tablets) available in Federation stocks in Nairobi to Juba. Based on continued and extended action of SRCS volunteers, the operation aimed at building capacity to mobilize, train and manage an increased number of volunteers, foremost in Juba, as well as the branches of Wau, Raja, Bentiu, Malakal, South and North Kordofan states.

The cholera epidemic response activities were implemented as a joint effort by the Movement partners to maximize the impact and mobilize all available resources in a coordinated manner. The Austrian Red Cross and the German Red Cross pledged immediate assistance to the SRCS response in Kadugli, South Kordofan State and Kosti, White Nile State. The German Red Cross and the SRCS branch in Kosti undertook cleaning and disinfecting of the river barges transporting people between the northern and southern states. The Netherlands Red Cross carried out Participatory Hygiene and Sanitation Transformation (PHAST) training in Juba for 15 regional volunteers.

Health	
Objective 1: Provide technical support to assess the health needs, extent and geographical coverage of the outbreak, and continue to provide basic health and hygiene information and support at the grassroots level to counter the spread of the outbreak.	
Expected results	Activities planned
<ul style="list-style-type: none"> • Oral rehydration salts, chlorine powder and tablets provided to cholera affected communities. • Health and awareness campaigns carried out in Lainya county and Yei town. • Tarpaulins/tents provided to Lainya and Yei health authorities. • 70 volunteers mobilized in response to floods in Sinnar State are assisting affected communities to limit the potential of AWD outbreaks. • Affected communities provided with non food items. 	<ul style="list-style-type: none"> • To carry out health and hygiene awareness campaigns in Lainya county and Yei town. • Provision of tarpaulins/tents for Lainya and Yei health authorities to treat and isolate AWD cases from the community. • Provision of oral rehydration salts (ORS), chlorine powder and tablets to the cholera-affected communities. • Deploy 70 volunteers to conduct health and hygiene awareness campaigns. • Distribution of non food items to the affected communities in Malakal (Upper Nile State)

Achievements

The Sudanese Red Crescent Society formed a technical health emergency committee to monitor the cholera cases and to assist branches in determining their response strategies. This committee comprised of both technical personnel from the SRCS and the Sudan delegation, and met daily to discuss the current situation. The capacity of the South Kordofan State coordination committee to undertake more widespread laboratory tests for AWD in outbreak areas has been strengthened.

The SRCS Juba branch and the sub-delegation also developed a community-based strategy focusing on the need for information and action within the community, based on an assessment of the gaps in the response which were not addressed under the various initiatives by other stakeholders. This will enable the SRCS to manage community-based hygiene awareness and sanitation issues more professionally and efficiently. The Sudanese Red Crescent Society, in conjunction with the Federation, also undertook a rapid assessment of El Obeid town, North Kordofan, in response to the growing number of cases and the flash flooding that occurred. The assessment mission to North Kordofan opened opportunities for assistance in branch activities.

The SRCS closely coordinated its response activities with the Red Cross Red Crescent Movement partners, Government agencies and other stakeholders involved in overall efforts to combat the spread of cholera in Sudan. The National Society was the lead organization in mobilizing and deploying volunteers in affected areas. The SRCS deployed 225 volunteers in Kadugli, South Kordofan with an approximate population of 290,000 people, to support the activities of the MoH, including supporting the MoH's emergency room for AWD control activities. 100 volunteers out of the initial 225 remained active in the area for about three weeks. The MoH trained 46 SRCS volunteers on prevention and water safety; they in turn trained 180 community volunteers in Kadugli. Activities undertaken by the SRCS volunteers in affected towns and surrounding villages included chlorination of water at the water points, clean-up campaigns and health education targeting the containment of the spread of AWD and cholera.

The SRCS/Federation team participated in a joint assessment exercise in Yei and Lainya counties of Central Equatoria state in August 2006, following a report by the State Governor pointing to the confirmed AWD/cholera cases. Based on the assessment, a plan of action was designed by the SRCS with support of the Federation sub-delegation in Juba. The activities included carrying out grassroots-level health promotion and hygiene awareness in Lainya County and Yei Town; provision of tarpaulins/tents for health authorities to treat and isolate cases from the community; preparation of sanitation kits that include the necessary tools for the construction of latrines in Lainya County and Yei Town and provision of oral rehydration salts (ORS), chlorine powder and tablets to the cholera-affected communities.

Thirty SRCS volunteers carried out the following health-related services over a period of 22 days for 40,000 people in Malakal (Upper Nile State):

- Distribution of 40,000 water treatment tablets;
- Treatment of 1,500 jerry cans of water with chlorine powder;
- Distribution of 4,000 sachets of ORS;
- Distribution of 20,000 bars of soap.

In Sinnar State, the local SRCS branch deployed 70 volunteers to conduct health and hygiene awareness campaigns so as to combat and prevent waterborne diseases such as AWD, malaria, respiratory diseases as well as other infectious diseases. This was in response to the flood situation which rendered over 3,500 families in the state homeless, with 1,849 families having to relocate to local camps.

Impact

The community-based strategy undertaken by the South Kordofan branch of the SRCS in Kadugli contributed towards containing the spread of the cholera outbreak.

Water and sanitation	
Objective 1: Provide technical personnel with support to assess the WatSan needs of the affected area, and maintain and develop the network of SRCS volunteers to disseminate information and supplies to expand the current availability of treated/potable water.	
Expected results	Activities planned
<ul style="list-style-type: none"> • 181 water points chlorinated at Kadugli. • 60 boreholes rehabilitated in Juba town in collaboration with the South Sudans' Ministry for Rural Development and Cooperatives. • 54,847 people receive information on cholera control and prevention. • Eight containers of chlorine of supplied to Kosti town. 	<ul style="list-style-type: none"> • Chlorination of water at 181 water points in Kadugli. • Rapid water testing in collaboration with government departments. • To disseminate information on cholera among 54,847 residents of Kadugli town and surrounding villages. • Rehabilitation of 60 boreholes in Juba town in collaboration with the South Sudans' Ministry for Rural Development and Cooperatives. • Supply of eight containers of chlorine to assist in the chlorination of water in Kosti town.

Achievements

The SRCS volunteers reached 54,847 residents in Kadugli and the surrounding villages with information about cholera and the importance of hygiene. Volunteers were mobilized and training was undertaken in activities such as sensitization on the prevention of cholera, hygiene education, water chlorination and distribution of chlorine tablets to households. Volunteers also ensured activities were undertaken in the

surrounding internally displaced persons (IDP) camps. Communities became less vulnerable to cholera/AWD due to activities conducted by the volunteers such as hygiene education, water chlorination and distribution of chlorine tablets.

The SRCS rehabilitated 60 boreholes in Juba town funded by UNICEF, in collaboration with the Department of Rural Water of the Government of South Sudan's Ministry for Rural Development and Cooperatives, thus providing access to safe water to communities in the Central Equatoria State. The SRCS and the Department of Rural Water staff got technical training within the rehabilitation project that, ultimately, led to improved technical capacity in water and sanitation.

The Movement partners were actively involved in the SRCS response activities including the German Red Cross which supplied eight containers of chlorine to assist in the chlorination of water and a water bladder in Kosti town. The SRCS has become an important actor in water and sanitation interventions in Juba.

Impact

The borehole rehabilitation project provided access to safe water to communities thus contributing to the control and prevention of further spread of cholera.

Constraints

The delay in signing an agreement between the SRCS and the Government of South Sudan securing full and legitimate access to all vulnerable people by one, united National Society hampered efforts by the Federation and the Movement partners to step up capacity building process and establish new branches in southern Sudan.

Red Cross and Red Crescent Movement -- Principles and initiatives

The promotion of the Fundamental Principles of the Red Cross and Red Crescent Movement within the target area was addressed during the assessments and the National Society's response operation with increased visibility of SRCS in all targeted states. It was addressed alongside the capacity building endeavour, including the provision of training to the volunteers as well as conducting awareness sessions for the affected communities.

National Society Capacity Building

Existing SRCS branches and volunteers received training in hygiene education and their capacity in responding to water and sanitation needs of communities have increased. Technical capacity of some SRCS staff and volunteers improved through participating in borehole rehabilitation project. The community-based approach in South Kordofan contributed to building network of active volunteers ready to respond to various emergencies in the State.

Assessments and lessons learned

An analysis of the cause of the cholera epidemic and factors contributing to its further spread clearly indicated that the most effective way of prevention was through community-based activities. This was in line with the MoH plan of action to counter the spread of cholera in the country. Consequently, the SRCS established community-based programmes in Juba (Central Equatoria) and Malakal (Upper Nile). This included providing people in the affected areas with chlorine to purify water, oral rehydration salts and hand-washing soap to improve hygiene.

Rapid water testing in Kadugli, in collaboration with government departments, found that 16 percent of wells, 33 percent of water containers and 76 percent of stored household water was contaminated. Multiple outbreaks in village areas prompted the SRCS/Federation and other partners involved in response activities to better target activities and step up the software component of water and sanitation.

Other lessons learned include the following:

- Technical communication between the SRCS branches in the southern Sudan should be improved to ensure more effective and timely responses.
- Cultural differences in the approach to volunteerism should be considered in future activities. While Kordofan is a more stable rural society and mobilization of volunteers is much easier, the same does not apply to Juba which is more heterogeneous and has culturally different settlements.
- The SRCS should develop more effective volunteer management systems to ensure retaining of volunteers over longer periods, such as financial incentives and other reward mechanisms.
- Extensive community-based hygiene and sanitation training of the population needs to precede water and sanitation interventions including environmental sanitation to increase sustainability of projects.
- Drama, music and dance proved to be an effective means of transferring messages to communities.

- Volunteer cholera kits should be pre-positioned in at-risk areas before the rainy season to ensure immediate response to possible outbreaks.
- Water and sanitation interventions need to be integrated into general community-based health activities for longer term impact.

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:

- **In Sudan:** Osman Gafer Abdalla, Secretary General, Sudanese Red Crescent Society, Khartoum; email: srsc_sg@yahoo.com; telephone +249.83.78.48.89
- **In Sudan:** George Gigiberia, Federation Country Representative; email: george.gigiberia@ifrc.org; telephone +249.83.77.10.33
- **In Kenya:** Andrei Neacsu; Ag Disaster Management Coordinator Eastern Africa Zone, Nairobi; email: andrei.neacsu@ifrc.org; telephone: +254.20.283.5149; fax +254.20.271.2777
- **In Kenya:** Ed Cooper Ag Federation Head of Eastern Africa Zone, Nairobi, telephone: +254.20.283.52.26; fax +254.20.271.27.77; email: ed.cooper@ifrc.org
- **In Geneva:** John Roche, Federation Operations Coordinator (Africa); email: john.roche@ifrc.org; telephone +41.22.730.4527

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International Federation of Red Cross and Red Crescent Societies

MDRSD001 - Sudan - Cholera

Final Financial Report

Selected Parameters	
Reporting Timeframe	2006/1-2008/8
Budget Timeframe	2006/1-2006/12
Appeal	MDRSD001
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	1,015,000					1,015,000
B. Opening Balance	0					0
Income						
<u>Cash contributions</u>						
Finnish Red Cross	23,211					23,211
Finnish Red Cross (from Finnish Government)	119,889					119,889
Japanese Red Cross	38,309					38,309
Kuwait Red Crescent	132,100					132,100
C1. Cash contributions	313,509					313,509
C. Total Income = SUM(C1..C5)	313,509					313,509
D. Total Funding = B + C	313,509					313,509
Appeal Coverage	31%					31%

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	313,509					313,509
E. Expenditure	-313,509					313,509
F. Closing Balance = (B + C + E)						

III. Budget Analysis / Breakdown of Expenditure

Account Groups	Budget	Expenditure					TOTAL	Variance A - B
		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)		1,015,000					1,015,000	
Supplies								
Water & Sanitation	484,000	2,313				2,313	481,687	
Medical & First Aid	45,000	357				357	44,643	
Utensils & Tools	10,000						10,000	
Other Supplies & Services	70,000	1,538				1,538	68,462	
Total Supplies	609,000	4,208				4,208	604,792	
Land, vehicles & equipment								
Vehicles	10,000						10,000	
Computers & Telecom	20,000	5,353				5,353	14,647	
Office/Household Furniture & Equipm.		3,431				3,431	-3,431	
Total Land, vehicles & equipment	30,000	8,784				8,784	21,216	
Transport & Storage								
Storage	5,000	349				349	4,651	
Distribution & Monitoring		3,210				3,210	-3,210	
Transport & Vehicle Costs	10,000	18,783				18,783	-8,783	
Total Transport & Storage	15,000	22,341				22,341	-7,341	
Personnel								
International Staff	144,000	13,503				13,503	130,497	
National Staff	74,900	45,919				45,919	28,981	
National Society Staff		72,108				72,108	-72,108	
Total Personnel	218,900	131,530				131,530	87,370	
Workshops & Training								
Workshops & Training	50,000	35,922				35,922	14,078	
Total Workshops & Training	50,000	35,922				35,922	14,078	
General Expenditure								
Travel	6,100	8,873				8,873	-2,773	
Information & Public Relation	5,000	9,851				9,851	-4,851	
Office Costs	15,025	12,021				12,021	3,004	

Communications		48,259				48,259	-48,259
Financial Charges		5,426				5,426	-5,426
Other General Expenses		5,967				5,967	-5,967
Total General Expenditure	26,125	90,396				90,396	-64,271
Programme Support							
Program Support	65,975	20,329				20,245	45,730
Total Programme Support	65,975	20,245				20,245	45,730
TOTAL EXPENDITURE (D)	1,015,000	313,509				313,509	701,575
VARIANCE (C - D)		701,575				701,575	