

# OPERATIONS UPDATE



International Federation of Red Cross and Red Crescent Societies  
Fédération internationale des Sociétés de la Croix-Rouge et du Croissant-Rouge  
Federación Internacional de Sociedades de la Cruz Roja y de la Media Luna Roja  
الاتحاد الدولي لجمعيات الصليب الأحمر والهلال الأحمر

## SUDAN: FLOODS

Appeal no. MDRSD002  
13 October 2006

*The Federation's mission is to improve the lives of vulnerable people by mobilizing the power of humanity. It is the world's largest humanitarian organization and its millions of volunteers are active in over 185 countries.*

### In Brief

Appeal No. MDRSD002; Operations Update no. 3; Period covered: 7 September – 8 October 2006; Appeal coverage (based on revised budget): 49.2%

[<Click here to go directly to the contributions list on the website; here to go directly to the revised appeal budget; or here to go to the contact details>](#)

#### Appeal history:

- **Preliminary Emergency Appeal** – <http://www.ifrc.org/docs/appeals/06/MDRSD002.pdf> – launched on 19 August 2006 for CHF 607,407 (USD 492,625 or EUR 386,146) for 6 months to assist 3,000 families (15,000 beneficiaries).
- **Operations Update no. 1** – <http://www.ifrc.org/docs/appeals/06/MDRSD00201.pdf> – issued on 26 August 2006.
- **Operations Update no. 2** issued 14 September presented a revised plan of action, increased the number of beneficiary households from 3,000 to 4,620 and revised the Preliminary Emergency Appeal budget to CHF 2,017,353 (USD 1,642,528 or EUR 1,280,412).
- **This Operations Update (no. 3)** presents the results of further assessments, and a revised budget of CHF 1,512,497.
- **Disaster Relief Emergency Funds (DREF) allocated: CHF 225,000.**

Outstanding needs: CHF 1,399,000 (USD 1,139,000 or EUR 888,000).

**Related Emergency Appeal: South Sudan: Cholera** – <http://www.ifrc.org/docs/appeals/06/MDRSD001.pdf> – Appeal no. MDRSD001.

**Operational Summary:** From 24 to 27 August 2006, a joint Sudanese Red Crescent Society (SRCS), Federation, and partner national society assessment team carried out a mission to Singa Region, Sinnar State (most affected by the flooding). The cross-sectoral team covered health, relief, water and sanitation (WatSan), logistics, livelihood and branch development. This was followed by an assessment in the Northern State, and this document reflects the consolidated plan and revised budget.

### The situation

Since the beginning of August, torrential rainfall across the Horn of Africa region has caused extensive flooding. In particular, rainfall in the Ethiopian and Eritrean highlands has caused flooding in those countries as well as in Sudan as the levels of the Nile, Algash and Atbara rivers have reached critical thresholds. Authorities have reported that the water level is exceeding the 1988 rates which led to an unprecedented disaster in Sudan. This year's flooding in Sudan has killed at least 40 people and destroyed more than 11,000 homes in the Sinnar, River Nile, Northern and Red Sea states, according to the Sudanese Government's Humanitarian Aid Commission (HAC). Sinnar State, south of Khartoum towards the Ethiopian border, has been worst hit by the flooding – with the homes of 3,622 families totally destroyed by the floodwaters. As the river water moved northwards, it flooded areas of Northern and River Nile states. Low lying areas of Khartoum continue to be at risk of flash floods.

The impact of the floods has been widespread. Schools, shops and clinics have been damaged and large swathes of agricultural land have been flooded. Supplies of food and fresh water are dwindling and the floods continue to

destroy crops. There is growing fear that further flash flooding before the end of the wet season could result in an outbreak of diseases such as Acute Watery Diarrhoea (AWD) and cholera compounded by increased cases of malaria during the coming seasonal highpoint. Lack of access to clean drinking water will become a major concern.

## Operational developments

At present the flood response in Khartoum has been mounted by a number of actors, and the SRCS's role within this area is to liaise with other agencies and to respond to gaps identified in current plans of action. A number of joint SRCS, Federation, and PNS assessment teams have been activated in response to the floods to provide technical support for the local branches and further assess the situation. The assessment team deployed to Singa Region of Sennar State established that 50 villages had been totally or partly destroyed and almost 40,000 hectares of cultivated land had been covered by the floods, wiping out crops of fruits and vegetables, displacing people from their homes and threatening livelihoods. The assessment team found that sanitation was becoming a major concern due to the absence of proper pit latrines. Volunteers are reminding residents of the importance of hand washing with soap to prevent the spread of diarrhoeal diseases and community awareness and participation will be a major strategy in decreasing the potential for waterborne disease outbreaks.

In Northern State the assessment team established that El Dabba locality, one of four that make up the state, was the only affected area. More than 90% of the community (approximate population of 95,000) are farming date trees, wheat, sorghum and vegetables, while the others are involved in daily labour in the town. The staple food in the community is wheat, sorghum, and beans. At this stage sanitation and livelihood activities are the priorities as shelter was mainly provided in the immediate response. The Swiss Red Cross is assisting the affected community by providing locally available construction material which will enable families to build their own roofing.

In Khartoum State nature of the disaster is of two types – heavy rainfall combined with flash floods in areas with blocked/absent drainage systems; and damage to mud houses and squatter type housing on river banks, combined with damage from heavy rains. [Khartoum State](#) is comprised of main 3 cities (Khartoum, Khartoum Bahri and Omdurman), and administratively divided into 7 localities with a total population of 7 million people. All 7 localities were affected by the rain and floods. Unlike the other areas in which the SRCS is responding to flood needs, Khartoum has an NGO coordination mechanism which has responded to the immediate needs of affected people. In Khartoum the focus is on supporting the activities already undertaken by providing further health and sanitation activities. Each flood response has provided differing needs, and as a means of reflecting the specific needs of each response a decision was taken that the Plan of Action will summarize the general needs before addressing the specific needs of each response separately.

## Red Cross and Red Crescent action

Following the disaster, the Government of Sudan, through the Humanitarian Aid Commission (HAC), called upon humanitarian actors to participate in providing assistance to the people affected by floods. Responding to a request from the SRCS, the International Federation launched a Preliminary Appeal on 19 August 2006 to support the SRCS in its efforts in responding to flooding in Khartoum, Sinnar, Kassala and Hamadab states. The Preliminary Appeal was followed by assessments that took place in August and September, resulting in the identification of needs and gaps, and a revised plan of action. Operations Update no. 2 issued on 14 September 2006 presented plans for a longer-term response; scaling-up the extent of coverage in the sectoral areas of intervention, in particular, health; and increasing the number of targeted households from **3,000** to **4,620 (23,100 beneficiaries)**. Consequently, the appeal budget was increased from **CHF 607,407** to **CHF 2,017,353**.

The initial response of more than 1,000 Sudanese Red Crescent volunteers has continued in various affected areas. Branch volunteers are working tirelessly on evacuation, distribution of necessities such as tarpaulins, as well as providing first aid services, psychological support and home nursing. In Sinnar State, Singa region, the volunteers are also managing temporary camps that have been set up for the displaced, helping people erect tents, mobilizing and helping the population to dig latrines and registering newcomers to the camps. The SRCS River Nile, Kassala, Sennar, Northern and Khartoum States branches have been activated in response to flooding while several other SRCS state branches have their response teams on stand-by, should there be more flooding. These teams include people specially trained to deal with floods and health emergencies.

All SRCS branches responded quickly to the flood situation as it unfolded. The Sinnar branch's response was notably fast and comprehensive in part because of disaster preparedness training provided earlier by the Spanish Red Cross. The SRCS National Disaster Response Team (NDRT) members have been present in Sinnar State since 16 August, and are assisting the Sinnar branch with streamlining and developing information gathering and reporting systems.

The SRCS has been proactive in exploring all avenues of financial support in-country as well. An example of their endeavours is the launching of a public appeal to support flood-affected people. Part of the basic non-food needs have already been covered using existing SRCS disaster preparedness stocks (see table 1). However, some of these items will need to be replenished in order to maintain the disaster response capacity of the national society. A list of the re-stocking needs of the four floods-affected branches is included as an annex to this document.

**Table 1: Non-food items distributed using Disaster Relief Emergency Funds**

State	No. of beneficiary families	Mosquito nets	Soap (bars)	Plastic sheeting	Blankets	Empty sacks
Sinnar	600	1,200	3,000	850	1,200	-
Khartoum	300	600	1,500	450	600	4,000
Northern state (Addeba)	200	400	1,000	350	400	-
Red Sea	200	400	1,000	200	400	-
North Kordufan	200	400	1,000	350	400	
Kassala	-	1,000	-	-	1,000	6,000
<b>Total</b>	1,500	4,000	7,500	2,200	4,000	10,000

The national society has also established health units in each of the 14 camps set up in Sinnar in cooperation with the state's Department of Health and Health Insurance. It has brought in and installed water bladders filled with water in collaboration with fire fighting units. The volunteers will also start raising health awareness in the camps and promoting good hygiene. As the volunteers continue providing essential services, the SRC disaster management staff – augmented by the Federation's Sudan delegation, the SRC-NDRT, RDRT-trained personnel and a number of partner national societies operational in the country – continue assessing the situation and preparing for stepping up the Red Cross/Red Crescent response to the growing emergency.

The SRCS, with the support of the International Federation, is also implementing the following programmes or operations that are considered complementary to this floods appeal:

Appeal title	Appeal no.	Current time-frame and budget	Current coverage (%)
Southern Sudan: Assistance to Returnees	05EA025	Launched on 7 November 2005 for CHF 8,383,957; revised to CHF 14,097,272 and extended to 31 December 2006	22.5%
Sudan: Cholera	MDRSD001	Launched on 2 March 2006 for CHF 1,015,000; extended to 31 December 2006.	16.8%
Sudan: Transitional Appeal	MAASD001	Launched on 27 September 2006 for CHF 33,553,558 until 31 December 2007.	1%

## The needs

This Operations Update presents the information gathered from assessments conducted in September in the worst affected states of Khartoum, Northern and River Nile. Each section below provides a brief overview of the assessment team's observations and recommendations as well as articulating the changes to the original plan.

## **Immediate needs**

### **Shelter and non food item support**

From the assessments undertaken to date, it became apparent that the priority, among the immediate needs of the displaced population was improved shelter. Many families who had evacuated flooded areas had either not been provided with alternative shelter arrangements, or received sub standard tents and will need further materials to improve protection against the elements of weather. Shelter material distribution needs to be supported with bedding to limit the effects of extreme temperature changes which vary from 35-40 degrees centigrade during the day, to 15-19 degrees centigrade during the night.

### **Health**

The assessment teams concluded that the immediate health situation in most of the flood affected areas was relatively stable at this point. There was however an increase in the frequency of diarrhoeal, respiratory tract, eye and malarial infections. Of concern in the camps of Singa region is the limited tents available for camp clinics, affecting the running of clinics. In all regions assessed, given the chronic health service situation compounded by the current floods, many communities at a considerably high risk of disease outbreaks and common infections due to lack of health and hygiene awareness. The SRCS plans to undertake community level health and hygiene training based on Participatory Hygiene and Sanitation Transformation in Emergency Response (PHASTER) methodology to increase awareness of health risks and their potential reduction. The emphasis will not be just on personal hygiene but equally and critically integrated and improved practice of household hygiene (cooking and washing utensils and kitchen equipment with clean water).

The health concerns (AWD/Cholera) that have arisen in the Ethiopia flood-affected areas are reflected in the regional coordination strategy for flooding in the Horn of Africa. The decision to provide additional Cholera Kits, Ringers Lactate and ORS for regional health preparedness has been addressed in a Special Bulletin (Ethiopia Floods Operations Update #4.). Should the situation in Sudan follow that of Ethiopia this supply of standby supplies will be available for the health operations detailed in this appeal.

### **Water and sanitation**

The availability of water varied between sites in Singa and Northern State. The assessment teams concluded that water was readily available in most areas and that its quality was good at this stage due to the use of ground feed water sources. A few smaller villages visited use river water. In Shendi, in Nile River State, the rising river has seriously impacted on the water services with 26 of the 28 water yards currently out of action. The water needs range from water storage facilities at the community and family level to the need to implement a chlorination programme as most households do not chlorinate their water. The Government has allocated 400 barrels and tools for the building of latrines in the camps. The camp communities are waiting for holes to be mechanically dug for latrines. However, there is no clear time line for this operation. The SRC strategy is to activate communities themselves to dig pits and build latrines with tools already provided by the Government and where tools and materials are limited, to provide them.

### **Information technology and telecommunications**

Over the recent past, the radio communication system of the SRC has come into disrepair. The situation in Sinnar branch and the recent flood assessment highlighted the need to address this issue, as over 100 volunteers are working in areas where more flooding is still a risk, whilst remaining out of contact because they do not have radio access to the branch. All branches visited had similar communication problems. The Nairobi Regional Delegation IT department will provide support to evaluate and assess the specific resources and service provision for this sector.

## **Medium to longer-term needs**

### **Livelihoods**

Singa region is traditionally an exporter of food produce and recently increased its market for bananas to include the Middle East. The total agricultural land damaged in the floods in the region is 16,800 hectares of crop estimated at SDD 250,500,000 (CHF 1.5 million approximately) including bananas, mangoes and vegetables. The mango crops are not seriously affected. However, the majority of banana and vegetable crops are completely destroyed, and hardly any produce will be recovered. This has placed many farmers at risk as they have now lost their banana crops for the coming season. Moreover, many of the pumps used for irrigation are damaged and require a huge cash input for recovery which is beyond the capacity of the families. The gravity of this dire situation is worsened by the fact that 60 per cent of the affected population were employed in the agriculture sector as casual labourers.

Future interventions may include appropriate livelihood recovery strategies such as:

- Provision of seedlings of the main cash crops.
- Engaging the affected population (workers) in various income generating activities.
- Reviewing food/nutritional needs for the coming three-month food rations.
- Micro-loans for maintaining water pumps.

Drawing on the positive experience of the joint SRC/Federation/PNS assessments of the flood affected areas, the intention is to replicate the model and conduct similar assessments this time concentrating on livelihoods, so as to have the conceptual elements clear and collectively agreed upon before designing an intervention strategy. ICRC Sudan delegation has generously offered to provide the technical experts resident in the country, which will not only expedite the putting together of the assessment teams but guarantee contextual knowledge by virtue of the fact that these experts already reside in Sudan. Livelihoods interventions, based on the recommendations of those assessments, will be included in a future operation update.

### **Shelter**

Some of the people interviewed during the Singa assessment indicated preference for the construction of local/traditional shelter in the form of tukuls. Unfortunately, the materials needed for such a construction were not available in the initial stages of the relief operation. With a more medium-term perspective, the SRC and the International Federation have decided to appeal for financial support to undertake such a venture. Similarly, the affected families in River Nile state will be supported with locally available roofing material, in line with similar interventions by the Swiss Red Cross and the German Red Cross undertaken in Northern and Khartoum states.

### **Coordination**

The International Federation and the SRC have been proactive in advocating for coordination meetings at all levels and both internally with Movement partners in Sudan including all PNS present (Austrian Red Cross, Danish Red Cross, German Red Cross, Netherlands Red Cross, Norwegian Red Cross, Saudi Arabian Red Crescent, Spanish Red Cross and Swiss Red Cross). The SRC has been proactive within the national response system at the national, state and local levels supported by the International Federation in actively advocating for information sharing and coordination between international actors in Sudan. Organizations included in the SRC and International Federation information and coordination network include the National Civil Defence Department, the Federal Ministry of Health, the Federal Water and Irrigation Department, and their respective state level departments and local offices.

International actors include EU, USAID, OCHA, UNICEF, WFP, CARE and SAVE. The SRC submitted a floods response proposal to UNICEF which had expressed its willingness to work with the national society in responding to needs of the floods affected people, particularly in the provision of non food items and information, education and communication materials. However, internal approval procedures at UNICEF are yet to be completed.

A noteworthy constraint to coordinating and securing assistance among international partners present in Sudan are the problems in Darfur in the west of the country, and how they have played out in the international scene. This has undoubtedly captured most of the media attention, consequently deflecting interest and relegating the floods to a distant second place.

### **The revised plan of action**

The plan outlined in the Preliminary Emergency Appeal was to provide relief assistance to 3000 households in four regions – Khartoum, Sinnar, Amri and North Kordofan. With the damage assessments of the worst flood-affected states of Sinnar, Khartoum, Northern and River Nile, the focus of the revised plan of action remains to meet the immediate relief needs of floods affected communities. But as the water recedes and the needs change, it now also contemplates medium-term interventions primarily in the areas of health and water and sanitation, with a strong component of capacity building targeting the corresponding four branches of SRC where volunteers will carry the bulk of the activities.

In line with the revised plan, the immediate assistance will include provision of tarpaulins, blankets, mats, jerry cans, soap, aqua tabs (for purifying drinking water) and insecticide-treated mosquito nets (ITNs). In addition, the SRC volunteers will continue to promote good hygiene and provide psychological support to the affected. Residents will also require seeds and tools so they can resume farming after the waters have subsided. Some of the tents that are currently in place will need reinforcing as many of them did not withstand the wind and rain. The health and sanitation activities, as well as the capacity building of the national society will be carried out within the activities of this plan of action.

**Goal: To provide assistance to 8,494 households (approximately 43,000 persons) affected by floods in Sinnar, Khartoum, Northern and River Nile states.**

#### **Sinnar State: Shelter**

Torrential rains in August hit regions of Sinnar causing the Blue Nile to burst its banks around Singa. 14 temporary camps have been established to house the displaced. The SRCS responded by requesting support from DREF to meet the immediate needs of 3000 and then by launching a Preliminary Emergency Appeal based on information available from the Sinnar State assessment. The main findings of that assessment was the need for shelter and housing NFI's as well as building and strengthening the sanitation infrastructure and management within the 14 established camps, The displaced at Singa continue to remain at considerable risks, although time has lapsed from the provision of shelter. Due to the large number displaced and sanitation situation within the camps, meeting their needs remains a priority of the national society.

The Singa region of Sinnar state was extensively affected by the flooding of the Blue Nile, destroying completely 3,622 houses. Several weeks have passed since the initial floods, and families have been placed in either the temporary camps set up or moved in with relatives. Instead of providing emergency shelter in the form of tents to these beneficiaries, the decision was made to provide 1,500 to the most vulnerable families (e.g.: single parent households) with construction materials so they can re-build "tukuls" made with adobe, wood and other natural materials. The cost of these constructions materials was estimated at USD 250 per "tukul". Besides being less expensive than tents, this option provides families with not only a more adequate and longer-term solution to their shelter needs (tents are too hot during the day, and some have proven to be easily damaged by bad weather), but also families have expressed their preference to re-build themselves rather than be housed in a tent. This reasoning has supported the decision of the Swiss Red Cross and the German Red Cross to opt for this culturally appropriate shelter solution in areas of Khartoum and Northern states.

Specific Objective	Expected Result	Activities
Objective 1: To minimize exposure to harsh weather and environmental conditions through the provision of construction materials to build "tukuls" to 1,500 households affected by floods.	1,500 of the most vulnerable families affected by the floods in Sinnar State have adequate shelter.	<ul style="list-style-type: none"> <li>• Procure construction materials for the construction of 1,500 "tukuls".</li> <li>• Distribute the tarpaulins and blankets to 3,500 affected households.</li> <li>• Provide extra tarpaulins to upgrade existing sub standard tents.</li> </ul>

#### **Sinnar State: Health**

Generally the main problems in the 14 temporary camps and villages are in sanitation, water supply, shortage and shelter, all of which have health implications. Most of the diseases reported from the clinics at the camps were diarrhoea, eye infections, malaria and respiratory tract infections. There was an increase in the frequency of diarrhoea diseases and respiratory tract infections observed in the camps. Medical emergencies that could not be

handled at the camp were referred to Singa Hospital. However some of the camps did not have vehicles to transport the patients; some of the camps were also quite far away from the hospital i.e. 20 km or more.

Specific Objective	Expected result	Activities
Objective 2: To improve the health status 3500 households in Sinnar State affected by floods, for six months.	<ul style="list-style-type: none"> <li>The affected households are empowered and their coping mechanisms enhanced to deal with likely and potential diseases and infections as a result of the floods. These include waterborne, water washed, water related and other communicable diseases.</li> <li>Reduced risk of immunizable disease infections in children under five years old.</li> <li>Reduced risk of maternal mortalities as a result of infections and other complications during delivery.</li> <li>Reduced incidence of malaria among the community affected by floods.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out refresher training for 70 SRC volunteers to provide health promotion and education to the community on key health problems.</li> <li>Procure and distribute 10,500 LLITNs.</li> <li>Procure and distribute 262,500 pieces of soap.</li> <li>Production of information, education and communication (IEC) materials and ARCHI tool kits for health education and promotion.</li> <li>Procure and provide 7 clinic tents to existing 7 PHC clinics.</li> <li>Volunteers to conduct community mobilization and sensitization on key interventions which include among others immunizations promotion, nutrition promotion and utilization of the health units by the affected population.</li> <li>Procure and distribute 35 Basic Emergency Health Kits to the SRC/MOH health posts.</li> <li>Procure and distribute 446 clean delivery kits to expectant mothers.</li> <li>Provision of psychological support to the affected households.</li> </ul>

### Sinnar State: Water and Sanitation

The situation in terms of water supply is acceptable (20L per capita and day) in most parts, with a few but very urgent exceptions. Water sources and existing distribution networks were not damaged by the floods, and as the coverage and level of service in the areas close to the river is fairly good, villages, where the affected population could be hosted by the non-affected population (non-affected in terms of not having lost their house), there is enough capacity to supply the community.

Most of the water comes from groundwater sources, which is less vulnerable to pollution. However, some smaller villages take water directly from the river, which can be assumed to be polluted during times of flood. In these villages, either transport/storage or treatment of the river water is necessary (household level filtration and chlorination).

Due to the poor sanitation situation, the threat or risk of AWD outbreaks can be assumed as very serious. Furthermore, equipment for testing residual chlorine is necessary, as well as training of volunteers in applying chlorine and using the tests. The branch has a delagua test kit; but a supply of consumables is needed. There were no INGO's active in the Sinnar state flood response.

Specific objective	Expected results	Activities
Objective 3: To improve access to safe and adequate water by the affected population of 3500 households in Sinnar state for six months.	<ul style="list-style-type: none"> <li>The affected population in Sinnar state have access to adequate and safe water.</li> <li>The affected population of Sinnar state has access to and is properly utilising sanitation facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Procure 7 water bladders tanks of 10,000 litres each .</li> <li>Hire 7 water tankers for water trucking for six months.</li> <li>Procure and distribute 2.5 million aqua tabs for household</li> </ul>
Objective 4: To provide sanitation		

<p>facilities and promote their proper use and good personal and household hygiene practices by the affected population.</p>	<ul style="list-style-type: none"> <li>• The affected population has good personal and household hygiene and sanitation practices.</li> <li>• Reduced incidence of diarrhoeal diseases among the target population.</li> <li>• SRCS is able to conduct random water test at either house hold level or distribution points.</li> </ul>	<p>water chlorination.</p> <ul style="list-style-type: none"> <li>• Refresher training of 28 SRC volunteers in house hold water treatment.</li> <li>• Conduct intensive household water treatment campaigns.</li> <li>• Provide 7,000 households water storage containers (20 litre jerry cans).</li> <li>• Support the community to construct 875 latrines.</li> <li>• Procure 875 PVC latrine slabs.</li> <li>• Train 28 SRC volunteers on Participatory Hygiene and Sanitation Transformation in Emergency Response (PHASTER).</li> <li>• Procure 6 spraying equipment (Hudson pump) for indoor residual spraying (IRS), 6 buckets, 2 Jerry cans, 2 barrels (100liter).</li> <li>• Procure chemicals for spraying (80 gram K-Othrine, 200 ltr Abate).</li> <li>• Procure protective wear for volunteers doing spraying – 12 pairs of Gloves, 12 Masks, 20 Goggles, 12 pairs of boots, 12 overalls.</li> <li>• Production of IEC materials and adaptation of PHASTER toolkits in simple Arabic language.</li> <li>• Conducting PHASTER training at the camp level.</li> <li>• Dissemination of hygiene messages based on the critical hygiene behaviour to the affected population through SRC volunteers.</li> <li>• Develop simple monitoring checklists to track personal and household hygiene behavioural change.</li> <li>• Attend coordination meetings with local authority and other partners.</li> <li>• Training on use of a Delagua Kit is conducted.</li> <li>• Delagua Kit consumables are Procured and delivered on time.</li> </ul>
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#### **Khartoum State: Shelter**

In Khartoum State Irish Goal is the lead agency for food and non-food items, Medair for health, and FAR for the interagency coordination. HAC-Khartoum used to have weekly meeting but at the moment are inactive.

From the assessment team's findings 70 households were identified to receive assistance. The assessment team suggested a combination of providing tented shelter and local shelter material as well as blankets and essential cooking items. Emergency shelter needs will be met by the Swiss Red Cross and German Red Cross, and NFIs have been distributed with in-kind donations from the Kuwaiti Red Crescent and the UAE Red Crescent.

### **Khartoum State: Health**

The assessment team prioritized health education and promotion activities in all affected areas regarding malaria, diarrhoea, acute respiratory infections, and personal and environmental hygiene as the major intervention for the SRC volunteers. This activity should be supported by malaria health education activities with distribution of long-lasting insecticide-treated bed nets. In the assessment, given the SRC role as an auxiliary to government, the team suggested the SRC branch support MoH with emergency drugs supplies and vector control.

<b>Specific Objectives</b>	<b>Expected result</b>	<b>Activities</b>
Objective 1: To improve the health status of 2250 households in Khartoum state affected by floods in 6 months.	<ul style="list-style-type: none"> <li>The affected households are empowered and their coping mechanisms enhanced to deal with likely and potential diseases and infections as a result of the floods. These include waterborne, water washed, water related and other communicable diseases.</li> <li>Reduced risk of immunizable disease infections in children under five years old.</li> <li>Reduced risk of maternal mortalities as a result of infections and other complications during delivery.</li> <li>Reduced incidence of malaria among the community affected by floods.</li> </ul>	<ul style="list-style-type: none"> <li>Refresher training for 45 SRC volunteers to provide health education.</li> <li>Procure and distribute 6,750 treated mosquito nets LLINs</li> <li>Procure and distribute 168,750 pieces of washing soap.</li> <li>Production of information, education and communication (IEC) materials.</li> <li>Volunteers to conduct community mobilization and sensitization on key interventions which include among others immunizations promotion, nutrition promotion and utilization of the health units by the affected population.</li> <li>Procure and distribute 23 Basic Emergency Health Kits to the SRC/MOH health posts.</li> <li>Procure and distribute to 286 clean delivery kits to expecting mothers.</li> </ul>

### **Khartoum State: Water and Sanitation**

Vector control activities in all affected areas were also a high priority for Wat/San response supported by activities to construct latrines for permanent areas and communal sanitation facilities in temporary areas.

<b>Specific Objectives</b>	<b>Expected result</b>	<b>Activities</b>
Objective 2: To improve access to safe and adequate water to the affected population of 2250 households.  Objective 4: To provide sanitation facilities and promote their proper use and good personal and household hygiene practices by the affected population.	<ul style="list-style-type: none"> <li>The affected population in Khartoum state have access to safe and adequate water.</li> <li>The affected population of Khartoum state have access to and are properly utilising sanitation facilities.</li> <li>The affected population have good personal and household hygiene and sanitation practices.</li> <li>Reduced incidence of diarrhoeal diseases among the target population.</li> </ul>	<ul style="list-style-type: none"> <li>Procure and distribute 1.6 million chlorine tabs for household water chlorination.</li> <li>Conduct intensive refresher course on household water treatment for 18 SRC volunteers.</li> <li>Support the community to construct 562 pit latrines.</li> <li>Procure 562 PVC latrine slabs.</li> <li>Train 14 SRC volunteers on Participatory Hygiene and Sanitation Transformation in Emergency Response (PHASTER).</li> <li>Procure 6 spraying equipment (Hudson pump) for indoor residual</li> </ul>

		spraying (IRS), 10 buckets, 5 Jerrycans, 2 barrels (100 liter). <ul style="list-style-type: none"> <li>• Procure chemical for spraying (80 gm K-Otrine, 200 litre Abate).</li> <li>• Procure protective wear for volunteers doing spraying – 12 pairs of Gloves, 12 Masks, 12 Goggles, 12 pairs of boots, 12 overalls.</li> <li>• Production of IEC materials in simple Arabic language.</li> <li>• Attend coordination meetings with local authority and other partners.</li> </ul>
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### Northern State: Shelter

The assessment team identified 299 households in the El Dabba locality eligible for shelter assistance. The emergency shelter needs of the affected population will be met by an intervention of the Swiss Red Cross, who will provide 511 affected families with locally available construction materials.

### Northern State: Health

Specific Objective	Expected result	Activities
Objective 1: To improve the health status of 520 households in Northern state affected by floods in 6 months.	<ul style="list-style-type: none"> <li>• The affected households are empowered and their coping mechanisms enhanced to deal with likely and potential diseases and infections as a result of the floods. These include waterborne, water washed, water related and other communicable diseases.</li> <li>• Reduced risk of immunizable disease infections in children under five years old.</li> <li>• Reduced risk of maternal mortalities as a result of infections and other complications during delivery.</li> <li>• Reduced incidence of malaria among the community affected by floods.</li> </ul>	<ul style="list-style-type: none"> <li>• Refresher training for 28 SRC volunteers to provide the health education.</li> <li>• Procure and distribute 1,560 treated mosquito nets LLINs.</li> <li>• Procure and distribute 39,000 pieces of washing soap.</li> <li>• Production of information, education and communication (IEC) materials.</li> <li>• Volunteers to conduct community mobilization and sensitization on key interventions which include among others immunizations promotion, nutrition promotion and utilization of the health units by the affected population.</li> <li>• Procure and distribute 5 Basic Emergency Health Kits to the SRC/MOH health posts.</li> <li>• Procure and distribute to 66 clean delivery kits to expecting mothers.</li> </ul>

### Northern State: Water and Sanitation

Specific Objective	Expected result	Activities
Objective 2: To improve access to safe and adequate water to the affected population of 520 households in Northern state.	<ul style="list-style-type: none"> <li>• The affected population in Northern state have access to safe and adequate water.</li> <li>• The affected population of Northern state have access to and are properly utilising sanitation facilities.</li> <li>• The affected population have good personal and household hygiene and sanitation</li> </ul>	<ul style="list-style-type: none"> <li>• Procure and distribute 374,400 chlorine tabs for household water treatment.</li> <li>• Refresher training of 10 SRC volunteers in household water treatment (Chlorination).</li> <li>• Support community to construct 130 latrines.</li> <li>• Procure 130 PVC latrine slabs.</li> </ul>
Objective 3: To provide sanitation facilities and promote their proper use and good personal and household hygiene practices by the affected population of 520 households in		

Northern state.	<p>practices.</p> <ul style="list-style-type: none"> <li>Reduced incidence of diarrhoeal diseases among the target population.</li> </ul>	<ul style="list-style-type: none"> <li>Train 28 SRC volunteers on Participatory Hygiene and Sanitation Transformation in Emergency Response (PHASTER).</li> <li>Organizing cleaning campaign in the camps.</li> <li>Procure garbage collection sets.</li> <li>Procure 6 spraying equipment (Hudson pump) for indoor residual spraying (IRS), 10 buckets, 5Jerrycans, 2barrels (100liter).</li> <li>Procure chemical for spraying (80 gram K-Othrine, 200 litre Abate).</li> <li>Procure protective wear for volunteers doing spraying – 12 pairs of Gloves, 12 Masks, 12 Goggles, 12 pairs of boots, 12 overalls.</li> <li>Production of IEC materials in simple Arabic language.</li> <li>Attend coordination meetings with local authority and other partners.</li> </ul>
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#### River Nile State: Shelter

The assessment team identified 553 households eligible for shelter assistance. It was determined that the affected families would receive locally available construction materials instead of procuring tents. This decision was in line with the shelter solution provided to affected families in Khartoum and Northern States by the Swiss Red Cross and the German Red Cross. It is estimated that the locally available materials cost USD 120 per household.

Specific Objective	Expected result	Activities
Objective 1: To minimize exposure to harsh weather and environmental conditions through the provision of local materials to 553 households affected by floods.	<ul style="list-style-type: none"> <li>553 families affected by the floods have adequate emergency shelter.</li> </ul>	<ul style="list-style-type: none"> <li>Procurement of locally available material for 553 households</li> <li>Procure 553 tarpaulins and 1106 blankets.</li> <li>Distribute the tarpaulins and blankets to 553 affected households.</li> </ul>

#### Rive Nile State: Health

The common diseases in the area are malaria, inflammations, and diarrhoeas. So far the number of cases is normal, however a deterioration of the health condition is expected after the flood water go stagnant, breeding of all vectors, effects of unsafe water drinking etc.

Hajar Alasal administrative unit is already suffering from severe shortage of health services, as there are only two rural hospitals and three health centres serving around 60 villages.

Vector control capacity is quite low in the administrative unit. There is only one fog spraying machine in Hajar Alasal, no manual sprayers, no insecticides although there are public health labourers.

Specific Objective	Expected Results	Activities
Objective 2: To improve the health status of 2,224 households in River Nile state affected by floods in 6 months.	<ul style="list-style-type: none"> <li>The affected households are empowered and their coping mechanisms enhanced to deal with likely and potential diseases and infections as a result of the floods. These</li> </ul>	<ul style="list-style-type: none"> <li>Carry out refresher training for 35 SRC volunteers to provide the health promotion and education to the community on key health problems.</li> <li>Procure and distribute 6,672</li> </ul>

	<p>include waterborne, water washed, water related and other communicable diseases.</p> <ul style="list-style-type: none"> <li>• Reduced risk of immunizable disease infections in children under five years old.</li> <li>• Reduced risk of maternal mortalities as a result of infections and other complications during delivery.</li> <li>• Reduced incidence of malaria among the community affected by floods.</li> </ul>	<p>treated mosquito nets (LLINs)</p> <ul style="list-style-type: none"> <li>• Procure and distribute 166,800 pieces of washing soap.</li> <li>• Production of information, education and communication (IEC) materials.</li> <li>• Volunteers to conduct community mobilization and sensitization on key interventions which include among others immunizations promotion, nutrition promotion and utilization of the health units by the affected population.</li> <li>• Procure and distribute 22 Basic Emergency Health kits to the SRC/MOH health posts.</li> <li>• Procure and distribute to 283 clean delivery kits to expecting mothers.</li> <li>• Provision of psychological support to the affected households.</li> </ul>
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### River Nile State: Water and Sanitation

In the area identified there are 28 water yards drawing water from the river, but during the time of the assessment only two were functioning. Water springs from sandy ground are also commonly used as water sources. There are shallow wells in some villages where water is pulled by buckets and rope.

The risk of water contamination is high because the main source of safe water is not functioning well, which may result in people resorting to drink flood water. During the assessment this was observed in some areas. It was also noted that the price of a barrel of water is 500 SDD which may become restrictive due to the widespread loss of income generating opportunities.

Sanitation issues include problems caused by the loss of latrines destroyed with their houses, which has implications that could lead to the unhealthy disposal of human waste. Immediate waste management strategies need to be implemented.

Specific objective	Expected result	Activities
<p>Objective 3: To improve access to safe and adequate water to the affected population of 2224 households of River Nile State.</p> <p>Objective 4: To provide sanitation facilities and promote their proper use and good personal and household hygiene practices by the affected population.</p>	<ul style="list-style-type: none"> <li>• The affected population in River Nile state have access to safe and adequate water.</li> <li>• The affected population of River Nile state have access to and are properly utilising sanitation facilities.</li> <li>• The affected population have good personal and household hygiene and sanitation practices.</li> <li>• Reduced incidence of diarrhoeal diseases among the target population.</li> </ul>	<ul style="list-style-type: none"> <li>• Procure and distribute 1,600,000 aqua tabs for House hold water chlorination.</li> <li>• Refreshment training in chlorination to 18 SRC volunteers.</li> <li>• Support the community to construct 556 latrines.</li> <li>• Provide 556 PVC latrine slabs.</li> <li>• Train 20 SRC volunteers on Participatory Hygiene and Sanitation Transformation in e</li> <li>• Emergency Response (PHASTER).</li> <li>• Procure 6 spraying equipment (Hudson pump) for indoor residual spraying (IRS), 10 buckets, 5Jerrycans, 2barrels (100liter).</li> <li>• Procure chemical for spraying (80 gram K-Othrine, 200 litre Abate).</li> <li>• Procure protective wear for</li> </ul>

		<p>volunteers doing spraying – 12 pairs of Gloves, 12 Masks, 12 Goggles, 12 pairs of boots, 12 overalls.</p> <ul style="list-style-type: none"> <li>• Production of IEC materials in simple Arabic language.</li> <li>• Attend coordination meetings with local authority and other partners.</li> </ul>
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## Common cross-cutting objectives

### Information technology and telecommunications

**Objective 1: To improve the Sudanese Red Crescent's information sharing and response capacity through the provision, extension and repair of its communication systems.**

#### Expected results

- Communication between the SRC headquarters, branches and volunteers in the field is improved.
- Reports are received from the field and branches in a timely manner.
- Improved security for personnel and operations.

#### Activities

- Quick technical assessment & evaluation of system followed by:
- Install VHF radio repeater station in Sinnar state branch.
- Provide 30 VHF radio handsets to the four flood-affected branches.
- Repair/replace the HF base in three SRC flood affected branches.
- Provide one computer and one printer to SRC DM staff at headquarters

### Human Resources

**Objective 1: To facilitate the efficient, effective and timely management of the operation through the deployment of additional human resources to the Sudan delegation for six months.**

#### Expected results

- More timely response to the needs of vulnerable flood affected people.
- Reporting is managed in a consistent manner and media are kept up to date with the activities of the Federation, SRCS, PNS and other Movement partners.
- The communications system of the SRC is improved.

#### Activities

- Facilitate IT/communications technical support from the International Federation's Nairobi regional delegation to repair the SRC radio system.
- Recruit an Operations Manager for one month
- Recruit locally a Disaster Manager for six months.
- Recruit a fulltime Relief Officer at SRC headquarters for six months.
- Recruit two fulltime Relief Officers for SRC branches in Sinnar and River Nile for six months.

### Communications – Advocacy and Public information

The International Federation and the SRC initiated an emergency operations room on 11 August in preparation for the predicted floods. The operations team has implemented an information sharing process which clearly identifies the roles, responsibilities and timeframes for ensuring effective and timely sharing of information to both the actors mentioned above as well as the local media. The proactive activities of this team's information strategy allowed for the local media, especially radio stations, to be informed of the latest events and who responded by broadcasting flood alert warnings allowing for preparedness activities and evacuation. The roles that both the SRC and the International Federation have played in information sharing has been recognized and appreciated by local

and international partners. Regular information and operations updates on the operation's progress continue to be issued. The regional delegation in Nairobi has produced and/or facilitated the writing of several stories with photographs on the floods and the International Federation/SRCS response for publication on [www.ifrc.org](http://www.ifrc.org), in addition to releasing statements and press releases to international media in Nairobi and Khartoum. A number of media interviews have been given by the International Federation's Media and PR Unit in Geneva and the regional communications unit in Nairobi, which continues to extend technical support to the SRCS's communications department. An integrated sub-regional communications strategy for the countries affected by the current flooding will reflect common areas of support and lessons learned from all regions and will benefit the Red Cross/Red Crescent in the future.

**[Revised appeal budget, contributions list, and contact details below; click here to return to the title page.](#)**

This operation is aligned with the International Federation's 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". The Global Agenda Goals are to:

- 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.

***For further information specifically related to this operation please contact:***

- ***In Sudan:*** Osman Jaffer, Secretary General, Sudanese Red Crescent, Khartoum; Email: [srcs@sudanmail.net](mailto:srcs@sudanmail.net); Phone: 249.183.77.20.11; Mobile: 249.912.31.88.88
- ***In Sudan:*** Mathew Varghese, International Federation Head of Sudan Delegation, Khartoum; Email: [mathew.varghese@ifrc.org](mailto:mathew.varghese@ifrc.org); Phone: 249.183.77.10.33; Mobile: 249.912.15.80.15
- ***In Kenya:*** Getachew Ta'a, Acting Federation Head of East Africa Regional Delegation, Nairobi; Email: [getachew.taa@ifrc.org](mailto:getachew.taa@ifrc.org); Phone 254.20.283.52.55; Fax 254.20.271.27.77 or Charles G. Byamugisha, Disaster Management Coordinator, East Africa Regional Delegation, Nairobi; Email: [charlesgodfrey.byamugisha@ifrc.org](mailto:charlesgodfrey.byamugisha@ifrc.org); Phone 254.20.283.51.17; Fax 254.20.271.27.77
- ***In Kenya:*** Iain Logan, Federation Emergency Coordinator for Horn of Africa, Nairobi; Email: [iain.logan@ifrc.org](mailto:iain.logan@ifrc.org); Phone 254.20.285.32.21; Mobile: +245.733.880015; Fax 254.20.271.27.77.
- ***In Geneva:*** Amna Al Ahmar, Federation Regional Officer for East Africa, Africa Dept.; Email: [amna.alahmar@ifrc.org](mailto:amna.alahmar@ifrc.org); Phone 41.22.730.44.27; Fax 41.22.733.03.95.

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.

For longer-term programmes in this or other countries or regions, please refer to the Federation's Annual Appeal. For support to or for further information concerning Federation programmes or operations in this or other countries, or for national society profiles, please also access the Federation's website at <http://www.ifrc.org>

## APPEAL BUDGET SUMMARY

Sudan Floods

MDRSD002

	ORIGINAL	REVISED	VARIANCE
<b><u>RELIEF NEEDS</u></b>			
Shelter	1,334,438	54,400	1,280,038
Construction Materials			0
Clothing & Textiles	202,586	221,379	-18,793
Food			0
Seeds & Plants			0
Water & Sanitation	64,561	323,438	-258,876
Medical & First Aid		74,293	-74,293
Teaching Materials			0
Utensils & Tools	35,439	128,127	-92,688
Other Supplies & Services		68,042	-68,042
<b>Total Relief Needs</b>	<b>1,637,025</b>	<b>869,678</b>	<b>767,347</b>
<b><u>CAPITAL EQUIPMENT</u></b>			
Land & Buildings			0
Vehicles Purchase			0
Computers & Telecom Equipment	29,105	70,470	-41,365
Office/Household Furniture & Equip.			0
Medical Equipment			0
Other Machinery & Equipment			0
<b><u>TRANSPORT, STORAGE &amp; VEHICLES</u></b>			
Storage - Warehouse	7,148	32,353	-25,205
Distribution & Monitoring			0
Transport & Vehicles Costs	72,352	49,412	22,940
<b><u>PERSONNEL</u></b>			
International Staff	12,000		12,000
Regionally Deployed Staff			0
National Staff		21,000	-21,000
National Society Staff	41,454	219,753	-178,299
Consultants		37,600	-37,600
<b><u>WORKSHOPS &amp; TRAINING</u></b>			
Workshops & Training	4,470	9,917	-5,447
<b><u>GENERAL EXPENSES</u></b>			
Travel	14,128	18,388	-4,260
Information & Public Relations	1,765	44,825	-43,060
Office running costs	882		882
Communication Costs			0
Professional Fees			0
Financial Charges			0
Other General Expenses	43,823	40,789	3,034
<b><u>PROGRAMME SUPPORT</u></b>			
Programme Support - PSR	129,593	98,312	31,281
<b>Total Operational Needs</b>	<b>356,720</b>	<b>642,819</b>	<b>-286,099</b>
<b>Total Appeal Budget (Cash &amp; Kind)</b>	<b>1,993,745</b>	<b>1,512,497</b>	<b>481,248</b>
<b>Available Ressources</b>			
<b>Net Request</b>	<b>1,993,745</b>	<b>1,512,497</b>	

# SUDAN - FLOODS

ANNEX 1

APPEAL No. MDRSD002

## PLEDGES RECEIVED

13/10/2006

DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
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### CASH

					<b>TOTAL COVERAGE</b>	
REQUESTED IN APPEAL CHF ----->				<b>1,512,497</b>		<b>49.2%</b>
BRITISH - GOVT/DFID		196,079	GBP	458,815	05.09.06	PROCUREMENT OF JUGS, TARPAULINS, SOAP, BLANKETS, TENTS
CANADIAN - RC		50,000	CAD	54,500	25.08.06	
JAPANESE - RC		16,200	USD	19,975	22.08.06	
JAPANESE - RC		38,000	USD	47,500	04.10.06	
NETHERLANDS - RC		40,000	EUR	63,022	13.09.06	
SWEDISH - GOVT		500,000	SEK	85,250	25.08.06	
SUB/TOTAL RECEIVED IN CASH				729,062	CHF	48.2%

### KIND AND SERVICES (INCLUDING PERSONNEL)

DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
DANISH - RC				15,558	08.10.06	30 EMERGENCY HEALTH BASIC KITS
SUB/TOTAL RECEIVED IN KIND/SERVICES				15,558	CHF	1.0%

### ADDITIONAL TO APPEAL BUDGET

DONOR	CATEGORY	QUANTITY	UNIT	VALUE CHF	DATE	COMMENT
SUB/TOTAL RECEIVED				0	CHF	