

Operations update



International Federation
of Red Cross and Red Crescent Societies

Sudan: Floods

Emergency appeal n° MDRSD004
GLIDE no. FL-2007-00093-SDN
Operations update n° 5
13 December 2007

Period covered by this Ops Update: 21 October to 13 December, 2007;

Appeal target : 7,498,940 (USD 6,233,533 or EUR 4,561,399);

Appeal coverage: [<Click here to go directly to the donor response report>](#)

•

Appeal history:

[Preliminary Emergency Appeal](#) launched on 18 July, 2007 for CHF 2,077,530 (USD 1,646,690 or EUR 1,194,969) for five months to assist 40,000 people.

[Revised Emergency Appeal](#) issued on 8 August 2007 for CHF 5.46 million (USD 4.5 million or EUR 3.3 million) to assist 140,000 people for six months.

[Operations Update no. 3](#) revised the appeal objectives and increased the budget to CHF 7,498,940 (USD 6,233,533 or EUR 4,561,399) to assist 60,000 more people. Total target beneficiary caseload now stands at 200,000 people (with capacity to serve an additional 25,000 people).

Disaster Relief Emergency Funds (DREF) allocated: CHF 549,000.

This operations update attempts to capture achievements and constraints experienced since the onset of the disaster to date.

Summary: Sudanese Red Crescent Society (SRCS) mounted a major relief operation to extend a helping hand to those most severely affected by this year's flooding. Some 1.5 million people have benefited from the services initiated by the National Society in response to the disaster. Of these, some 257,145 individuals were supplied with one or more emergency shelter and relief items (depending on their needs), mobilized either through the Federation appeal or bilateral donations.

Conditions have eased now. Recent assessments undertaken by joint SRCS and Federation teams confirmed the situation in the disaster affected areas has stabilized. In most areas (predominantly in the north), flood waters dried up. With combined efforts, emergency relief/shelter needs of those affected have largely been met. People started rebuilding their lives. Not many families, however, have managed yet to reconstruct their homes. Hundreds of thousands continue living in temporary shelter erected from materials provided by humanitarian organizations. Supporting livelihoods recovery is the top priority now. A more in-depth assessment is currently ongoing to identify exact needs and design a tailored response strategy.

The Acute Watery Diarrhoea (AWD)/Cholera epidemic in Kassala and Gedaref states has been contained. 1.3 million people have been provided by SRCS with clean drinking water during the two most critical months. Some 1,500 volunteers were involved during the peak of the outbreak.

A major concern now that poses an immediate threat to human lives is the spread of the Rift Valley Fever (RVF). The disease has killed 173 people since October 2007. With the onset of the winter season respiratory infections are expected to be on the rise as well; particularly vulnerable to cold waves are children and elders. Some SRCS field clinics will, therefore, be retained in the high risk areas for another month. Emergency health care will be combined with intensified community training and distribution of more mosquito nets. Bed nets and correctly designed messages can save lives during the approaching period of Gorbani Eid, a Muslim festival of sacrifice, during which thousands of sheep will be slaughtered in Sudanese houses.

In the south, the humanitarian focus remains in response to immediate humanitarian needs as previously cut-off populations become increasingly accessible for provision of assistance. SRCS, supported by Movement partners, has pre-positioned emergency relief/shelter items in Juba (the capital town of Southern Sudan) and distribution is expected to start by mid December 2007. The initial focus will be on Central Equatoria state. Distributions in Jonglei state have been put on hold for security reasons. Despite improvements, access remains the major challenge; some roads are either waterlogged or inter-tribal clashes hamper assessment and delivery of aid. A detailed plan for the south is being developed and will be communicated through the subsequent operations update in January 2008.

Finances: Donor response to the appeal has been very good and the Federation takes this opportunity to thank all those who contributed. The appeal coverage currently stands at 77.4%; Expenditure at the end of December 2007 is projected at CHF 3.55 million (i.e., 65% of the cash contributions). The balance will be carried forward into the 2008. A revised budget with the revised plan of action is being prepared and will be published in January 2008.

Another appeal revision envisaged in January 2008 to extend the operation timeframe in order to enable the SRCS to continue responding to humanitarian needs of the flood affected communities. The extra time is deemed vital to protect the vulnerable population from new health threats (RVF, meningitis) that have emerged recently as a direct consequence of the flooding. Additional time will also enable the SRCS to bring emergency assistance to previously cut-off populations.

The disaster

Torrential rains caused massive flooding across Horn of Africa this year. In Sudan, over 500,000 people have been affected. Rains started in July 2007, one month earlier than usual, and caught many unprepared. The level of precipitation was unusually high. Twenty two of Sudan's 26 states were inundated. Man made factors exacerbated the impact. Various assessments highlight road construction techniques, specifically inadequate drainage channels, were partly responsible for the scale of the disaster. The situation was compounded by weather conditions in neighbouring countries. Heavy downpours in Eritrea, Ethiopia and Uganda swelled and burst Sudan's rivers and tributaries. Nearly 60,000 residential houses were completely destroyed and at least 50,700 homes were severely damaged.

The flooding, described by many Sudanese as the worst in their living memory, compounded the already grim humanitarian conditions in the country. Poverty is widespread. Very few have access to basic services such as safe water and health facilities. Among Sudan's 36 million people, life expectancy at birth is 58 years for women and 55 for men. More than half of the women are illiterate, as are three out of ten men. About 17 percent of children under the age of five are underweight. Health care spending is the lowest in sub Saharan Africa at US\$14 per capita, per annum (Source: Human Development Report).

The situation update

Since the latest operations update published on the Federation's web site, the SRCS teams completed re-assessment in eight flood affected states: North Kordofan, Southern Kordofan, White Nile, Gezira,

Kassala, Northern, Sennar and River Nile. The teams confirmed the situation in the disaster affected areas had stabilized. In most areas visited flood waters dried up. Emergency relief/shelter needs have largely been met. People have started to rebuild their lives.

The Acute Watery Diarrhoea (AWD)/Cholera outbreak in Kassala and Gedaref states has been brought under control. No new cases have been recorded since the end of November 2007. With the high tide receded, the inter-agency task force that was convened in response to the epidemics, has dissolved itself and mass water chlorination has been discontinued.

SRCS branches are flagging the environmental sanitation and livelihoods recovery as the top priorities now. Assessment currently ongoing by SRCS consultant (recruited externally) to determine the magnitude of needs and SRCS role in livelihood recovery process. The UN Food and Agriculture Organization (FAO) has warned that a dangerous infestation of locusts could emerge along the Red Sea in December following an outbreak of the insects in northern Sudan. Desert locusts as migratory grasshoppers often travel in vast swarms and pose a serious threat to agricultural land. According to FAO, they live for about three to five months, and one adult consumes roughly its own weight in fresh food per day - about two grams. A small swarm eats as much food in one day as about 2,500 people. The Sudanese government mobilized aerial and ground control teams and had already treated more than 11,000 hectares, according to FAO. But if good rains fall along the coast this winter, locust numbers are likely to increase dramatically and significant infestations could develop by February 2008 that would require substantial control operations.

Another major concern that poses an immediate threat to human lives is the spread of the Rift Valley Fever (RVF). The death toll from this year's RVF outbreak in Sudan has climbed to 173 out of 548 people (CFR 31.76%), as of 5 December 2007. The deadly virus can be transmitted to humans by handling of animal tissue during slaughtering or butchering, helping with animal births and in veterinary procedures. Human infections can also result from mosquito bites and distribution of bed nets is identified as one priority (by the health coordination group comprised of the Ministry of Health of Sudan, WHO, SRCS and other in-country based agencies) to stop the spread of the disease. SRCS posted three reports on DMIS to alert partners on the situation and inform about SRCS action.

To make matters worse, unconfirmed cases of Meningitis began to be reported towards the end of October 2007. Meningitis is an infection of the thin lining that surrounds the brain and spinal cord. Often transmitted by coughing or sneezing, it can cause complications including brain damage and deafness. About 5 -10 percent of patients die from the illness, according to WHO. The highest burden of the disease occurs in the 'African meningitis belt', stretching from Senegal in the west to Ethiopia in the east, with an estimated total population of 300 million people. The disease mainly occurs during the dry season, from December to June. The most serious recent outbreak occurred in 1996, when more than 250,000 cases and 25,000 deaths were registered across Africa. Earlier this year, Meningitis killed nearly 2,000 people in four African countries - Burkina Faso, Sudan, Uganda and the Democratic Republic of the Congo (DRC) since the start of the epidemic this year. Sudan was one of the most affected countries. Nearly 1,000 people were killed. The outbreak started in Southern Sudan and spread rapidly to other areas affecting in total 22 of Sudan's 26 states. A DREF allocation was made earlier in April 2007 to support SRCS action in response to the epidemic i.e., to procure 6,700 doses of drugs (antibiotics) sufficient for 6,700 patients and to mount a public education campaign (DREF operation final report will be published in January 2008 on the Federation's public web site www.ifrc.org). The high tide receded with the arrival of rains in July 2007, and now with the onset of the dry season new cases are being registered. The SRCS, in coordination with the Ministry of Health and other partners, is developing a contingency plan to mitigate the impact.

Coordination and partnerships

SRCS as the leading indigenous emergency response agency throughout Sudan has been actively involved in all coordination fora at national and state levels. It maintains regular contact with the Humanitarian Aid Commission (HAC) of the Ministry of Humanitarian Affairs, the agency that has led

the disaster response on behalf of the Government of Sudan, and took part in UN-led interagency task force weekly meetings. Planning and implementation was coordinated at sectoral level. The task force dissolved itself by now.

The SRCS continues leading the weekly Movement Task Force attended by the SRCS, the Federation, the International Committee of the Red Cross (ICRC) and representatives of sister National Societies working internationally in Sudan.

Several partner National Societies have contributed to SRCS-led flood response efforts either bilaterally or through the Federation appeal (click here to see the list of contributions). With the joint efforts, lives have been saved and the dignity of those affected has been protected.

Red Cross and Red Crescent action

Overview

The SRCS mounted a major relief operation to extend a helping hand to those affected. Some 1.5 million people have benefited from the National Society's services initiated in response to the disaster.

Achievements at a glance

- Evacuating those hurt and affected by the flooding: Thousands of SRCS volunteers were mobilized throughout the country. Volunteers travelled from all over the country to give a helping hand to their colleagues and countrymen. An extraordinary effort was exerted to reach some of the remote and hardest hit communities.
- Needs assessment: SRCS volunteers made door-to-door assessments of floods affected households to identify their needs. Findings were communicated to Khartoum through emergency operations rooms, set up in all SRCS branches. The office in Khartoum collated and shared information within and outside the Movement. During subsequent monitoring visits to the states, Government officials stressed the distinguished role of SRCS volunteers. The SRCS was probably the only organisation in Sudan that had the most comprehensive and accurate data on flood induced damages. The data served as a reliable source of information for the authorities including the HAC, UN and NGOs to design a relevant response strategy.
- Emergency relief/shelter: 51,429 households (i.e. 257,145 people) assisted with one or more emergency shelter and relief items, mobilized either through the Federation appeal or bilateral donations.
- Local shelter construction: 700 households are being helped to construct durable shelters from locally available materials (ongoing).
- Water ERU in Kosti: 15,000 - 20,000 people are provided with safe water on daily basis (ongoing).
- Water kit in Elhadeib: 5,000 to 8,000 people provided with safe water on daily basis (ongoing).
- Water kit in Sodari: 3,000 people provided with safe water on daily basis (ongoing).
- Household water treatment: some 1.3 million people in Kassala and Gedaref were provided with safe water through mass water chlorination during two months. Mass water chlorination discontinued as soon as the situation has stabilized.
- Malaria prevention/distribution of bed nets & community training: 41,988 households provided with insecticide treated mosquito nets (ongoing).
- Rift Valley Fever (RVF) prevention/community training on RVF prevention, mosquito net distribution, environmental hygiene and house-to-house spraying of insecticides: target 100,000 households i.e., 500,000 people (ongoing).
- Basic health care: 240,000 people patients seen by SRCS field clinics (ongoing).

Lessons learned: some initial reflections

Organizing the logistics for the emergency operation was extremely complicated. Difficult terrain and limited capacities of some of the SRCS branches (notably lack of warehouse and transportation

capacity) posed challenges. The major constraint was the lack of access to the affected areas that hampered assessment and response efforts. Communication with remote SRCS units was difficult, particularly during the initial phase of the emergency with roads blocked and bridges damaged by the flooding. Mobile phones did not always work and radio equipment was not everywhere available. Information on needs was, therefore, not easily forthcoming delaying response efforts. In close coordination with government authorities and in-country based national and international organisations, the challenges were eventually overcome and most of the set objectives have been met. SRCS did a commendable work. Drawing lessons from this year's experience, nevertheless, will be important to improve effectiveness and efficiency during future disasters. The SRCS acknowledges the importance of this and is planning to invite its staff and volunteers from the HQ and branches as well as key in-country based partners – HAC (Sudan's Ministry of Humanitarian Affairs); Civil Defence, Ministry of Health and UN agencies (notably UNJLC, WHO and UNICEF) and Movement partners (Federation, ICRC, sister National Societies working internationally) to a workshop for an open discussion on achievements and constraints encountered. Lessons learned will be documented and incorporated into future planning. An external evaluation and audit are also planned.

Some initial reflections point to the importance of developing viable contingency plans. Vital will be the availability of disaster preparedness (DP) stocks *pre-disaster* at strategic locations. The bulk of NFI distributed during the emergency phase came either from the SRCS's own stocks or UN's common pipeline. NFI procured internationally by the Federation for this year's operation arrived too late. There were complications at the customs as well causing further delays. People in need of assistance cannot wait that long. The SRCS DP stocks are now depleted and need to be replenished as soon as possible.

Unavailability of un-earmarked funding to cover in-country distribution cost (transportation to final destination, storage and incentives for volunteers) was another challenge. With NFI available through UN common pipeline, cash was what was needed in order to pay for the logistical costs of the SRCS to deliver life-saving aid to those affected. This cash, however, was not always readily available.

On its part, the SRCS is committed to improving logistics management systems and systematizing information collection and documentation as well. It strives to strengthen accountability to beneficiaries as well as other stakeholders and is taking already concrete steps to deliver on the commitment: a concept paper has been developed and recruitment of an SRCS reporting officer is underway. The reporting officer will lead the information management/reporting capacity building process in SRCS with technical support of the Federation's reporting delegate. One task of the reporting officer will be to promote and support the development of a SRCS wide Planning, Monitoring, Evaluation and Reporting (PMER) framework, standard systems and procedures.

Measures are being made to improve financial reporting as well. As of January 2008, the SRCS is introducing a new financial management system. It is installing new software and will train its finance staff. This will help improve significantly donor reporting and will, consequently, reduce cash deficits.

Progress towards objectives

Goal: To mitigate the effects of flooding and increase resilience of 200,000 flood-affected people in Sudan.

Emergency relief

Objective 1: To provide 75,000 people (15,000 households) with emergency relief and shelter support.

Expected results	Activities planned
Vulnerability of 75,000 people to climatic shocks reduced.	<ul style="list-style-type: none"> • Provide 60,000 empty sand bags to communities in high risk areas. • Arrange for the procurement and distribution of tarpaulin for 60,000 people (12,000 households).

- Provide 15,000 of the most vulnerable flood-affected people (3,000 people) with local building materials, tools and technical support to construct improved emergency shelter.
 - Provide all 75,000 targeted people with essential household items (such as sleeping mats, blankets and kitchen sets).
 - Plant 75,000 tree saplings to offset the use of wood for emergency shelter construction.
- Soil erosion and desertification in communities minimized.

Progress

- Re-assessment in flood affected states completed; remaining gaps identified and final distributions undertaken in the northern states; details of the latest distributions (completed by 15 December 2007) incorporated in the table below.
- Since the start of the emergency operation, in total, SRCS has distributed relief/ shelter supplies to 51,429 households (i.e. 257,145 people). NFI came from SRCS stocks, bilateral donations from in-country and international partners, and contributions received to the Federation appeal (see the table below which shows distributions per source and per item).
- Distributions were based on findings of SRCS-led assessments and were tailored to specific needs of the selected communities.
- While distributions in northern states have been completed, in the south, the humanitarian focus remains in response to immediate humanitarian needs as previously cut-off populations become accessible only now for provision of assistance.
- NFI have been pre-positioned in Juba for 5,500 households and distributions are expected to commence by mid December 2007.
- Items currently available for distributions in the south: 750,000 water sachets (procured with un-earmarked contributions to the appeal); 10,000 mosquito nets; 7,000 jerry cans; 3,500 pieces of tarpaulin and 7,000 blankets (in-kind donation of the Finnish Red Cross).
- An immediate focus will be on Terekeka county in Central Equatoria state (Tombe, Muni and Nyori). Distribution planned for 15-19 December 2007.
- Distribution in Jonglei state put on hold for security reasons (inter-tribal clashes reported recently with a number of casualties. Travel to the area suspended until further notice). In the meantime, assessment ongoing in Eastern Equatoria state.

Table: SRCS-led distributions - summary (including bilateral and multilateral donations; see Annexes 1 for more details)

State	Plastic sheets/tarps	Tents	Sleeping mats	Blankets	Kitchen Sets	Jerry Cans	Mosquito nets	Aqua tablet	Soap (kg)	Sand sacks
Blue Nile	1,868	200	2,336	4,236	1,168	1,536	4,568	350,000	2,250	2,000
Gedaref	2,020	100	1,200	4,220	600	-	3,030	700,000	4,565	-
Gezira	2,090	-	1,730	4,380	1,930	2,450	600	350,000	3,894	3,000
Kassala	4,692	400	3,984	8,284	1,742	4,284	3,342	994,000	3,965	12,000
Khartoum	3,400	611	3,000	5,440	1,700	300	3,600	560,000	2,100	8,000
North Kordofan	11,588	300	17,236	23,236	1,000	16,236	19,118	384,000	7,500	-
Northern	1,000	-	1,000	1,500	500	-	4,000	350,000	563	7,000
Red Sea	3,433	476	3,346	6,206	2,153	2,546	6,513	-	1,500	-
River Nile	2,800	300	1,000	3,500	1,300	800	3,400	350,000	375	5,000
Sennar	6,624	110	12,248	10,648	4,024	9,148	4,524	350,000	3,318	9,000
South Darfur	1,000	500	-	3,000	-	-	-	-	918	-
South Kordofan	2,330	-	-	4,988	910	800	1,930	-	-	-
Unity	3,000	-	-	5,000	1,500	3,000	4,500	-	2,400	-
Upper Nile	1,300	-	600	3,100	1,000	2,000	16,500	-	1,200	-
White Nile	9,050	650	10,000	15,120	4,450	5,700	8,350	490,000	5,662	4,000
Total	56,195	3,647	57,680	102,858	23,977	48,800	83,975	4,878,000	40,210	50,000
Households served	28,098	3,647	28,840	51,429	23,977	24,400	41,988	32,520	10,723	N/A

Local shelter construction project in El Hedieb village in White Nile state

The project suffered delays because of ensuing disputes between the local authorities and the village population over the land that had been proposed by the government for the resettlement. The local authorities have re-assessed the original village site and concluded it was not suitable for habitation as it was prone to flooding. Government has been propagating for the resettlement. The dispute, which largely involved negotiation over a price for a new plot being proposed to the village residents, has now been resolved; the village has accepted the government terms and agreed to resettle to higher grounds. SRCS has committed to support the families by contributing locally available materials for the reconstruction of shelters. The concept of the original project, thus, is being slightly modified although the ingredients remain largely intact. Instead of *emergency* shelter, the SRCS will be supporting in reconstructing *transitional* shelters. Shelters will be built by the communities themselves. The type of materials provided through the operation will remain as initially planned: sticks, bamboos and bundles of straw, which can be formed into strong, durable, shelters that are culturally acceptable. Beneficiaries say they will secure additional materials (such as mud bricks) needed to transform their transitional shelters into a more permanent accommodation. Tool kits for the construction will be provided by the SRCS to each community. Monitoring of construction will be done by SRCS volunteers.

Registration of families has begun; 700 families registered so far. The land demarcation has been completed and procurement of local shelter construction materials is ongoing. Funding for 500 families secured (American Red Cross contribution); another 200 families will be supported through un-earmarked contribution to the appeal.

Emergency health, water and sanitation

Objective 2: To provide safe drinking water to Sphere standards to some 177,400 flood-affected people in hardest hit areas.

Expected results	Activities planned
177,400 floods affected people have access to safe drinking water according to Sphere standards during three months.	<p>Household-level water treatment:</p> <ul style="list-style-type: none"> • Provide five million water purification tablets to 55,000 persons in the hardest hit areas, for household level water treatment; 1 tablet per person per day during three months. • Distribute 20ltr water containers to those targeted for water purification tablet distributions.
Reduced risk of water borne diseases in the target areas.	<p>Kosti town, White Nile state:</p> <ul style="list-style-type: none"> • Deploy one complete ERU (module 40) to provide treated water for three months to 40,000 people in Kosti town. • Support Kosti town's water authorities with the procurement of fittings to repair the damaged pipes. • Supply the town's water treatment plant with chemicals sufficient for one month to provide treated water the population of 60,000 people. • Distribute water treatment tablets (1 tablet per person per day for one month) and 20 Lt jerry cans (two cans per family) to 35,000 people (7,000 households) of the total 60,000 people connected to the network. <p>Al Hedieb village, White Nile state:</p> <ul style="list-style-type: none"> • Provide emergency water supply through a water treatment kit (with a 10,000 people capacity). • Construct 200 communal emergency latrines. <p>Sodari, North Kordofan state:</p> <ul style="list-style-type: none"> • Provide emergency water supply through a water treatment kit (with a 10,000 people capacity) in Sodari. • Rehabilitate up to 80 hand pumps in Jabrat El Sheikh, North Kordofan state, to increase the availability of safe drinking water for the affected population of 2,400 people.

Progress

Household-level water treatment

- 4.9 million water purification tablets and 46,750 jerry cans distributed to 30,000 households in the hardest hit areas (see the table above for details).

Treatment and monitoring of water sources in areas most at risk of health epidemics:

- Some 1.3 million people in Kassala and Gedaref were provided with safe water through mass water chlorination during two months.
- Mass water chlorination in Kassala and Gedaref has now been discontinued.
- The situation in the two states has remained stable. No new cases have been registered since the end of November 2007.

Water ERU in Kosti (20,000 people capacity): 15,000-20,000 people are provided with safe water on daily basis.

- ERU treats and distributes 150M³ water (on average) every day.
- Water is pumped three times a day and then treated with chemicals.
- Treated water is distributed through a tap stand installed near the water plant.
- With flooding water receded, donkey cart system, disrupted during the emergency phase, has now resumed. Donkeys are the most common medium of transportation in the area and are used to take water to the areas not connected to the town's piped network.
- The town's main distribution line is still contaminated with high e-coli numbers¹ and NTU (nephelometric turbidity units) between 100 and 200.
- The ERU is also supplying water to the village of Hassania, 1 km from Kosti town. The village population (about 3,000 people) is supplied with 20,000 lt of safe water every day.

The exit strategy for ERU as agreed upon between the Federation and the SRCS:

- ERU team departed as planned; the team leader left on 2 December.
- ERU team leader prepared the hand-over documents, signed-off by the Federation's country representative on behalf of the Federation, giving all physical assets of the ERU to the SRCS on the following basis:
 - SRCS will continue operating the Kosti ERU system to 31 January 2008 with a minimum output of 150,000 Ltrs safe water per day, which may be reduced if consumption noticeably reduces.
 - Costs for this operation to be met by the floods appeal (ECHO funds).
 - Federation WatSan Coordinator (Juba) will provide technical support/advice to SRCS in Kosti for the correct dismantling and storage of the ERU in February, also to determine status of other former ERU equipment stored in Khartoum, from the last deployment in Kassala.
 - SRCS to procure for the town's water authorities water treatment products (sufficient for two months) and fittings to repair the damaged pipeline. The list of required fitting prepared and submitted to the SRCS. Procurement to be arranged ASAP.

Water kit in Elhadeib (max 10,000 people capacity): 5,000 to 8,000 people served.

- Safe treated water provided to the village's entire population since 29 September 2007.
- The kit is run by SRCS volunteers with technical support of the ERU team in Kosti.
- The kit produces on average 60 m³ of safe water per day.
- Two 70m³ distribution tanks and three tap-stands installed in the village.
- 32 SRCS trained volunteers work with the village residents on daily basis promoting safe hygiene.

¹ E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes.

- Local authorities requested the SRCS to retain the kit in the village for another three months (i.e., until the end of March 2008) until the government completes the construction of a law-filtration system. Running cost to be covered through the appeal extension (proposed amendment to ECHO).

Water kit in Sodari (max 10,000 people capacity): 3,000 people served.

- 70m³ of safe water produced on average every day.
- Water kit run by two water engineers seconded by the local water authorities, four members of water rural committee and six community volunteers.
- The water kit in Juba has been re-supplied.
- Rehabilitation of hand pumps in Jabrat El Sheikh: not implemented due to the delayed donor response; need for the intervention is being re-assessed.

Objective 3. To strengthen resilience of some 110,000 flood-affected people to water and vector borne diseases.

Expected results	Activities planned
Increased awareness of household water treatment methods among the affected population.	<ul style="list-style-type: none"> • Retrain 360 SRCS volunteers on water and vector borne disease prevention and control. • Conduct community training on vector control and prevention of water borne diseases. • Print and distribute information, education and communication (IEC) materials.
Improved hygiene practices amongst the target population.	<ul style="list-style-type: none"> • Distribute 45,000 long lasting insecticide treated bed nets; 3 nets per family for 15,000 families.
Increased awareness of water and vector borne disease prevention and control.	<ul style="list-style-type: none"> • Conduct sensitization and training on proper use of water purification chemicals and mosquito nets. • Distribute 0.25kg of soap per person per month to 110,000 people for three months according to the Sphere indicator (local procurement).
Reduced risk of water and vector born diseases in the target areas.	<ul style="list-style-type: none"> • Distribute 200,000 ORS sachets to people suffering from diarrhoea. • Establish ORS preparation and demonstration centres.
Reduced morbidity and mortality from avoidable diseases.	<ul style="list-style-type: none"> • Mobilise volunteers for environmental sanitation (insecticide spraying and waste disposal management). • Procure cholera and Malaria test kits (paracheck).

Hygiene promotion

- Thousands of SRCS volunteers engaged with their communities in flood affected areas promoting safer hygiene, better management of water and sanitation facilities.
- The emphasis has been on training of volunteers and community leaders in Participatory Hygiene and Sanitation Transformation (PHAST), a methodology that builds on people's innate ability to address and resolve their own problems.
- 40,210 kg of soap distributed by SRCS since the start of the emergency; of these, 30,000 kg was procured locally by the SRCS with the ECHO contribution.
- Several clean-up campaigns organised in all flood affected states.
- Results have been remarkable. Subsequent monitoring has revealed that hygiene behaviours and sanitation have indeed improved (residential areas are cleaner; garbage is collected regularly and disposed safely) and there is an increased awareness of water and vector-borne diseases (demonstrated in increased and consistent use of mosquito nets, hand washing and household treatment of water).
- Hygiene promotion work to continue into 2008 in selected areas; to be incorporated into the revised appeal due in January 2008.

AWD/Cholera prevention

- Some 1.3 million people in Kassala and Gedaref were provided with safe water through mass water chlorination during the two most critical months.
- Some 1,500 volunteers were engaged in the operation during the peak of the epidemic.
- The AWD/Cholera outbreak has been contained. No new cases have been registered since the end of November 2007. Mass water chlorination discontinued.
- Cholera kits procured and stored at the national laboratory of the Ministry of Health; to be mobilised as needs arise with prior consent of the SRCS.

Household distribution of water purification products

- 4.9 million water purification tablets and 46,750 jerry cans distributed to another 30,000 households in the hardest hit areas (see the table below for details).

Malaria prevention

- SRCS has so far distributed 83,975 nets to 41,988 households (two nets per household).
- Distributions were combined with spraying of insecticides and community training on vector control. Insecticides and spraying equipment was provided by the Ministry of Health.
- Malaria kits procured and handed over to the Ministry of Health.

RVF prevention

- The death toll from a RVF outbreak in Sudan has climbed to 173 out of 544 people (CFR 31.6%), as of 5 December 2007.
- The outbreak started at the end of October 2007.
- Human cases of RVF have been reported in White Nile, Sennar, Jazeera and River Nile states in central and eastern Sudan.
- Government requested SRCS support with insecticides, mosquito nets and human resources (volunteers) to engage in vector control activities and community education in the affected areas.
- Mosquito nets dispatched by the SRCS from its warehouse in Khartoum (data on the distributions included in the attached table). Additional 5,000 nets being mobilized through the Federation's global programme (via Nairobi). 1,500 nets to be distributed in Gezira, another 1,500 nets in White Nile state and remaining 2,000 nets will be dispatched to Sennar state.
- Community to be mobilized in two affected states: Gezira and River Nile. In Gezira 84 volunteers will be working in 450 villages in two localities. In River Nile state, another 63 volunteers will be mobilised in 323 villages in two localities identified as most at risk.
- Education materials (100,000 posters, 200,000 pamphlets and a film) on RVF prevention developed by the Ministry of Health and UNICEF, to be distributed/shown in the affected villages by mobile SRCS volunteer teams.
- The project supported by Sudan's Ministry of Health, UNICEF and WHO.
- Community training started on 31 November 2007.
- Some 100,000 houses are expected to be visited by SRCS trained volunteers.
- Volunteers also to organise house-to-house spraying of insecticides. Insecticides provided by the Ministry of Health.
- 30 campaigners will organise garbage clean-up campaigns and cleaning of wells, drains and water containers as well.

Objective 4. To provide basic curative care to 75,000 flood-affected people in isolated areas.

Expected results	Activities planned
75,000 flood affected people have received basic health care services.	<ul style="list-style-type: none"> • Deploy 25 mobile health units in the hardest hit areas to provide basic health care services to some 75,000 people for three months. • Supply mobile units with medicines and medical supplies.

The impact of flooding on human health and avoidable deaths reduced.

Progress

- The SRCS field clinics played a vital role in reaching out to communities with no access to basic health care.
- 16 clinics are currently working in various localities, where conditions remain critical.
- Each unit has the capacity to provide basic health care to 15,000 people (3,000 households) for three months.
- The number of patients seen by the clinics varies depending on the size of the community; on average 20 to 30 patients a day. The number was higher during the early stage of the operation (50 to 60 patients a day). However, as the clinics started serving smaller, more isolated communities, the number of patients treated has reduced respectively.
- The total number of patients seen by the SRCS clinics since the beginning of the operation is estimated at 240,000 people.
- Most common diseases seen included: upper respiratory diseases, Malaria and diarrhoea.
- As flood waters dry up and roads re-open, the Ministry of Health-run clinics increasingly resume their services. With the situation improving, the SRCS will gradually be decreasing the number of its field clinics.
- Some clinics will be retained until the end of January 2008, with a focus on the areas where the outbreak of RVF was recorded.
- While doctors and nurses attend to immediate health needs of their patients, SRCS trained volunteers have been conducting health promotion and education sessions in their communities on prevention and control of common diseases of epidemic potential, e.g. malaria, cholera and other diarrhoeal diseases (see the table below for volunteer numbers engaged in the operation).

Strengthening SRCS disaster response capacity

Objective 5. To strengthen the SRCS capacity to respond to this and future disasters.

Expected results	Activities planned
Increased capacity of the SRCS staff and volunteers to organise disaster response.	<ul style="list-style-type: none"> • Train and orient volunteers in key hazard areas, disaster preparedness and response skills through national disaster response team (NDRT) training. • Train 50 Red Crescent volunteers and staff members on public health in emergencies and conduct 12 sessions on community-based first aid (CBFA). • Provide uniforms and equipment, including vehicles, communication and life saving equipment.
Availability of in-country stocks of emergency NFI, medicines and medical supplies for 25,000 people to enable timely response if need for such response arises.	<ul style="list-style-type: none"> • Pre-positioning disaster preparedness stocks (tarpaulins, blankets and jerry cans) for 5,000 families. • Replenish 2,000 tents distributed from SRCS DP stock. • Pre-positioning one interagency emergency health kits, 5,000 long lasting insecticide-treated nets and IEC materials for future emergencies.

Progress

- Training needs to be re-evaluated and incorporated into the revised plan of action; to be published through the operations update with the revised timeframe and budget in January 2008.
- Pre-positioning of emergency relief/shelter items at strategic locations remains a priority. Partners are encouraged to contribute with cash or in-kind donations to ensure better preparedness for the imminent disaster next year.

Livelihoods recovery

Objective 6. To establish livelihoods recovery needs in the flood affected areas.

Expected results	Activities planned
<p>Livelihood rehabilitation strategy developed and shared with partners and donors.</p> <p>SRCS role in livelihood rehabilitation process defined.</p>	<ul style="list-style-type: none"> • Design livelihoods assessment methodology. • Carry out the assessment in target areas/communities and livelihoods groups. • Coordinate assessment with key local, national and international stakeholders. • Recommend sustainable interventions and SRCS role in livelihood recovery process.

Progress

- Recent re-assessment by SRCS confirmed large agricultural areas have been severely affected by the flooding. In many areas people could not sow because of the flooding. An in-depth assessment is required to determine the exact needs.
- Terms of Reference (ToR) for a local consultant prepared.
- Four states – River Nile, White Nile, North Kordofan and Sennar – prioritized for the SRCS-led assessment.
- The states selected according to the following criteria: the level of damage to residential houses, agricultural land and property (loss of boats, fishing equipment and/or cattle according to preliminary reports); focus by other actors and capacities of the local communities as well as the SRCS branches.
- The local consultant prepared a detailed plan of action and implementation has started in River Nile and Sennar states.
- Assessment to continue into January 2008 and findings to be incorporated into subsequent operations update.

Communications – Advocacy and Public Information

Several briefings have been held with local media representatives to update on the needs of the flood-affected population and progress made by the SRCS as well as to share concerns about the challenges encountered. In many states, the SRCS continues to be the only organisation that has a presence on the ground and first hand information on the situation.

Promotional materials such as t-shirts, vests and coats for Red Crescent volunteers produced and distributed to volunteers in targeted areas to increase the visibility of the National Society.

At the end of the operation, a booklet documenting lessons learned will be prepared and published in both Arabic and English languages.

Since the launch of the emergency appeal, the Federation issued three press-releases and published three stories on its public web page at www.ifrc.org.

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 carried out under 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:

For further information specifically related to this operation please contact:

- **In Sudan:** Osman Gafer Abdalla, Secretary General, Sudanese Red Crescent Society, Khartoum; email: srcs_sg@yahoo.com; telephone +249.83.78.48.89
- **In Sudan:** George Gigiberia, Country Representative in Sudan; email: george.gigiberia@ifrc.org; telephone +249.83.77.10.33
- **In Kenya:** Dr Asha Mohammed, Federation Head of Eastern Africa Zone, Nairobi; email: asha.mohammed@ifrc.org; telephone: +254.20.283.5124; fax +254.20.271.2777
- **In Kenya,** John English, Disaster Management Coordinator, Nairobi; email: john.english@ifrc.org; telephone +254.20.283.5117
- **In Dubai** (for mobilization of relief items): Amina Shaikh, Logistics Officer, Regional Logistics Unit; email: amina.shaikh@ifrc.org; telephone: +971.50.458.48.72
- **In Geneva:** Niels Scott, Federation Operations Coordinator for Africa; email: niels.scott@ifrc.org; telephone +41.22.730.4527; fax: +41.22.733.03.95.

[Annexes below; click here to return to the title page>](#)

Annex 1. SRCS-led distributions

State	plastic sheets/tarps	Tents	Sleeping mats	Blankets	Kitchen Sets	Jerry Cans	Mosquito nets	Aqua tablet	Soap	Empty sand sacks	Source
Blue Nile							3,000				American Red Cross/IFRC appeal
	800		800	1,200	400		800		2,250	2,000	ECHO/IFRC appeal
	300	200		1,500							Qatar Red Crescent/bilateral
	768		1,536	1,536	768	1,536	768	350,000			UNJLC/bilateral
	1,868	200	2,336	4,236	1,168	1,536	4,568	350,000	2,250	2,000	Total
Gedaref									2,295		Austrian RC/bilateral
	320			1,220			1,830				Belgium RC/IFRC appeal
	1,200		1,200	1,800	600		1,200		2,250	-	ECHO/IFRC appeal
	500	100		1,200				700,000			Qatar Red Crescent/bilateral
									20		SRCS stock
	2,020	100	1,200	4,220	600	-	3,030	700,000	4,565	-	Total
Gezira	200			600	200	400	600				Hajar company/bilateral
	1,730	-	1,730	3,460	1,730	1,890	-	-	519	-	UNJLC/bilateral
	-	-	-	-	-	-	-	-	3,375	3,000	ECHO/IFRC appeal
						160					Kuwait Red Crescent/bilateral
	160			320				350,000			SRCS stock
	2,090	-	1,730	4,380	1,930	2,450	600	350,000	3,894	3,000	Total
Kassala									500		Austrian RC/bilateral
				1,000			1,000				Belgium RC/IFRC appeal
	1,200	-	1,200	1,800	600	-	1,200	-	3,375	12,000	ECHO/IFRC appeal
		400		1,200		2,000		994,000	90		SRCS stock
	2,350		500	2,000							UAE Red Crescent/bilateral
	1,142		2,284	2,284	1,142	2,284	1,142				UNJLC/bilateral
4,692	400	3,984	8,284	1,742	4,284	3,342	994,000	3,965	12,000	Total	
Khartoum		150				300		560,000			SRCS stock
		461		540							Saudi Government/bilateral
	3,000	-	3,000	4,500	1,500	-	3,000	-	2,100	8,000	ECHO/IFRC appeal
	400			400			600				Belgium RC/IFRC appeal
					200						Swiss RC/IFRC appeal
	3,400	611	3,000	5,440	1,700	300	3,600	560,000	2,100	8,000	Total

State	plastic sheets/tarps	Tents	Sleeping mats	Blankets	Kitchen Sets	Jerry Cans	Mosquito nets	Aqua tablet	Soap	Empty sand sacks	Source
North Kordofan	2,000	-	2,000	3,000	1,000	-	2,000	-	7,500	-	ECHO/IFRC appeal
		150		2,000							Kuwait Red Crescent/bilateral
	470										Saudi Government/bilateral
		150									SRCS stock
	2,000	-	1,000	4,000	-	2,000	4,000	-	-	-	UAE Red Crescent/bilateral
	7,118		14,236	14,236		14,236	7,118	384,000			UNJLC/bilateral
							6,000				Islamic Development Bank/bilateral
11,588	300	17,236	23,236	1,000	16,236	19,118	384,000	7,500	-	-	Total
Northern							3,000				American Red Cross/IFRC appeal
	1,000	-	1,000	1,500	500	-	1,000	-	563	7,000	ECHO/IFRC appeal
								350,000			SRCS stock
	1,000	-	1,000	1,500	500	-	4,000	350,000	563	7,000	Total
Red Sea	300	200		1,500							Qatar Red Crescent/bilateral
							3,000				American Red Cross/IFRC appeal
	100	226									Saudi Government/bilateral
		50									SRCS stock
	1,273		2,546	2,546	1,273	2,546	1,273				UNJLC/bilateral
	800	-	800	1,200	400	-	800	-	1,500	-	ECHO/IFRC appeal
	960			960			1,440				Belgium RC/IFRC appeal
					480						Swiss RC/IFRC appeal
3,433	476	3,346	6,206	2,153	2,546	6,513	-	1,500	-	Total	
River Nile	800			800			1,200				Belgium RC/IFRC appeal
	1,000	-	1,000	1,500	500	-	1,000	-	375	5,000	ECHO/IFRC appeal
	400			1,200	400	800	1,200				Hajar company/bilateral
	600	300									Saudi Government/bilateral
								350,000			SRCS stock
					400						Swiss RC/IFRC appeal
	2,800	300	1,000	3,500	1,300	800	3,400	350,000	375	5,000	Total
Sennar	1,000	-	1,000	1,500	500	-	1,000	-	2,250	9,000	ECHO/IFRC appeal
		110						350,000			SRCS stock
	5,624	-	11,248	9,148	3,524	9,148	3,524	-	1,068	-	UNJLC/bilateral
	6,624	110	12,248	10,648	4,024	9,148	4,524	350,000	3,318	9,000	Total

State	plastic sheets/tarps	Tents	Sleeping mats	Blankets	Kitchen Sets	Jerry Cans	Mosquito nets	Aqua tablet	Soap	Empty sand sacks	Source
South Darfur	1,000	500		3,000							SRCS stock
									918		IFRC appeal
	1,000	500	-	3,000	-	-	-	-	918	-	Total
South Kordofan	400			800	400	800	400				ICRC/bilateral
	910										Saudi Government/bilateral
	1,020			1,020			1,530				Belgium RC/IFRC appeal
				3,168							Kuwait Red Crescent/bilateral
					510						Swiss RC/IFRC appeal
	2,330	-	-	4,988	910	800	1,930	-	-	-	Total
Unity	500			1,500	500	1,000	1,500				Hajar company/bilateral
	1,000			2,000	1,000	2,000	3,000				ICRC/bilateral
	1,500			1,500					2,400		SRCS stock
	3,000	-	-	5,000	1,500	3,000	4,500	-	2,400	-	Total
Upper Nile	500			1,000	500	1,000	15,000		1,200		ICRC/bilateral
	500			1,500	500	1,000	1,500				Hajar company/bilateral
	300		600	600							SRCS stock
	1,300	-	600	3,100	1,000	2,000	16,500	-	1,200	-	Total
White Nile									1,200		Austrian RC/bilateral
	1,500			1,500			2,250				Belgium RC/IFRC appeal
	4,000	-	4,000	6,000	2,000	-	4,000	-	4,462	4,000	ECHO/IFRC appeal
	700			2,100	700	1,400	2,100				Hajar company/bilateral
				3,500	1,000						Kuwait Red Crescent/bilateral
	650	350									Saudi Government/bilateral
	-	300	-	1,700	-	1,300	-	490,000	-	-	SRCS stock
					750						Swiss RC/IFRC appeal
	2,200		6,000	320		3,000					UNJLC/bilateral
9,050	650	10,000	15,120	4,450	5,700	8,350	490,000	5,662	4,000	Total	
Grand total	56,195	3,647	57,680	102,858	23,977	48,800	83,975	4,878,000	40,210	50,000	

Annex 2: SRCS field clinics

State	No of clinics	Locality	Medical personnel involved	Patients seen	Volunteers attached to the clinic/engaged in health education
Gadaref	1	Alfao Village 18	1 medical assistant, 1 lab technician and 7 volunteers	1,450 patients (1 Oct-27 Nov 2007)	900; 3,14 houses visited
	1	Rowena	1 medical assistant, 1 nurse and 6 volunteers	1,650 (1 Oct-27 Nov 2007)	
White Nile	2	Hadeeb Al-Gazira Abaa			150
Khartoum	1	Gabal Awlia	1 medical assistant, 1 assistant pharmacist, 1 counsellor, 12 volunteers	Daily record of 40-45 patients	100
	1	Omdawan-Ban	1 medical assistant, 1 assistant pharmacist, 12 volunteers		
Kassala	1	Akla 1	1 medical assistant, 2 volunteers	Daily record of 40-45 patients	200
	1	Akla 2	1 medical assistant, 2 volunteers.	Daily record: 25-30 patients	
North Kordafan	1	Allah kareem			100
Sinnar	2	Al-Boster,Sennar Al-Azazi,Sinja	1 medical assistant, 1 volunteer (in each)	Daily record 20-25 patients	100 (2,113 houses visited).
Gezira	1	44 Karcat	2 nurses	Daily record 20-25 patients	1,325 (26,510 houses visited since the start of the emergency; distributed 1,000 education materials)
River Nile	2	Bagrousy Gangari	1 medical assistant, 1 health visitor and 4 volunteers.		
	1	Sedon	1 doctor, 1 assistant pharmacist, 1 volunteer and 1 health officer.	Daily record 25-30 patients	100
	1	Serek			
Total	16				1,710