

FINAL REPORT



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

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SUDAN: FLOODS

20/02/2002

This Final Report is intended for reporting on emergency appeals

Appeal No. 24/2001

Launched on: 10 August 2001 for CHF 1,293,933 for a period of three months.

DREF Allocated: CHF 50,000 (repaid)

Beneficiaries: 10,000 (Note: while the original number of intended beneficiaries was 10,000, some form of assistance was actually provided to approximately 80,000 persons)

Final Operations Update; Period covered: 10 August 2001 until 15 November 2001 (last Operations Update no 1 issued on 5 November 2001)

"At a glance"

(to be completed by Relationship Management Dept.)

Appeal coverage: xx%

Related Appeals number/title

The Disaster/Situation Short (three-five sentences) narrative description

Operational Developments:

Due to heavy rains during July 2001, northern parts of Sudan were hit by disastrous floods. Although in recent years heavy flooding occurred regularly in Sudan (six times since 1998), this most recent one has been the worst flood which affected the country in the past twenty years. Compared to previous years, the Sudanese population suffered further due to unexpectedly early heavy rains, causing large scale displacement of families, destruction of homes, crops and livestock, mosques and entire villages.

More than 62,000 people in nine states of Sudan lost their homes to this natural disaster. The worst affected states of the country were River Nile state to the north of the capital Khartoum, Sinnar and Gezira to the south of Khartoum (please refer to table 1). In addition to this information provided by the Sudanese authorities, several co-ordinated assessment visits to Nile and Sinnar states, consisting of the Sudanese Red Crescent Society (SRCS), government representatives, UN agencies and NGOs, confirmed a large scale damage.

On 7 September, the water level rose to its highest peak ever recorded in the country, causing fears of further deterioration in the situation. Fortunately, this did not happen, and since then, the flood level has been gradually stabilised and the water level started to decrease. Although the immediate risk to the population gradually ceased, the health situation continued to be hazardous, with reported increase in waterborne diseases, as well as chest and eye infections.

Red Cross Red Crescent action •

Based on previous experience, in 2000 SRCS and the Federation developed a proactive contingency flood-response plan. In line with this, and to respond to the needs of those affected in 2001, the disaster preparedness department of the Sudanese Red Crescent Society (SRCS), supported by the International Federation, in close collaboration with the Civil Defence, Humanitarian Aid Commission (HAC), Nile Water Directorate and Ministry of Irrigation, carried out necessary disaster response preparations and response plan of action.

As part of these actions, two rapid assessment missions were conducted during the first days of floods. The first mission was to Sinnar State with representatives of the Government, the SRCS, the Spanish Red Cross and other agencies, revealing 3,200 affected families in nine villages. Many villages were not accessible at the time, due to road problems and heavy flooding. The second assessment mission was conducted to the River Nile State by the SRCS, the Federation, government authorities, UN agencies and NGOs, finding some 70,000 acres of productive land heavily damaged by the floods.

Table (1) Affected population by areas of Sudan

State branch	No. of Areas affected	Affected Population	No. of houses affected
Sinnar	15	16'715	1'000
River Nile	7	33'174	1'150
N. State	13	3'690	3'658
Khartoum	3	2'550	212
Gezira	13	2'420	-
Kassala	8	1'760	-
S. Darfur	6	1'250	-
White Nile	-	410	-
N.Kordofan	-	1'245	-
Total	65	63'214	6'020

Based on the findings of these missions and assessed needs, the emergency assistance to the most affected was prioritised first, including a provision of shelter, health care and other vital non-food items. The second proposed action focused on curbing a growing number of waterborne diseases, respiratory and eye infections, and other diseases through health, and water and sanitation activities.

In response to the disaster, a preliminary Emergency Appeal was launched by the Federation on behalf of SRCS on 10 August 2001, seeking CHF 1,293,933 to provide 10,000 beneficiaries with emergency assistance over a three-month period. Some programme components were completed by mid-November. International donors and National Societies responded to the appeal in a timely manner, enabling SRCS and the Federation to quickly assist the most vulnerable.

Red Crescent Society ••

The initial response to the floods by the Sudanese Red Crescent Society was highly efficient. Immediately at the onset of disaster at the beginning of August, the National Society dispatched their emergency Disaster Preparedness (DP) stocks from the headquarters to the

most affected areas. This included plastic sheeting, blankets, tents and jerrycans (please refer to table 2 below).

Table (2) indicates the distribution of SRCS emergency stocks

State Branch	Blankets	Jerrycans	Tents	Hospital Tents	Plastic sheeting
Sinnar	2'000	1'000	1	1	0
River Nile	2'000	1'000	1	0	0
N. State	1'000	500	1	0	0
Gezira	1'000	500	1	1	0
Kassala	0	0	0	0	800
S. Darfur	1'000	0	0	0	0
Total	7'000	3'000	4	2	800

In addition to the release of emergency stocks, volunteers of the branches of Khartoum, Northern State, Sinnar, River Nile and Gezira participated in a number of other disaster response actions, including providing the communities with sand bags, cleaning water drainage systems, conducting community awareness in different affected areas, riverbank reinforcement actions using sand bags, first aid services, technical support to mobile technical clinics, health education, environmental health actions, and other.

Co-ordinated by Emergency Committee at the headquarters, five State branches established a number of Emergency Volunteer Teams, consisting of 10-30 volunteers with a responsibility of carrying out the above tasks in assisting the most vulnerable, in close co-operation with local authorities. The largest teams were established in Khartoum (12 teams), Sinnar (15 teams) and the Northern State (15 teams). In all, over 1,500 volunteers from five states were mobilised to participate in SRCS' disaster response operation.

Throughout the time of disaster, the headquarters and the branches of the National Society were highly regarded by both the communities and local authorities for its contribution towards better response co-ordination, as well as for providing the up-to-date vital information concerning latest developments and outstanding needs of the affected communities.

The preparedness level of SRCS was much higher than in previous years' disasters, which should be attributed to both their extensive experience in disaster response, as well as improved capacities through training of volunteers, resulting in minimised fatalities.

Clear reporting structure was established within SRCS. Each of the State branches provided daily reports to the headquarters' officer on duty, including floods update from their regions, activities carried out and identified needs.

To provide additional capacity to the National Society, two temporary relief officers / co-ordinators were recruited during floods operation. Additional staff were also recruited in Sinnar, River Nile, Southern Darfur and Northern State. To support SRCS, an additional relief delegate has been assigned to the Federation Delegation in Sudan.

Monitoring and Assessments •

Objective: Through emergency volunteer teams, assess further disaster response needs, population displacements, property damage, and health risks.

Throughout the stages of emergency response to floods, the volunteers and staff of SRCS both at HQ and community/branch levels played a key role in their co-operation with local authorities, communities and other humanitarian agencies. The members of these teams continually performed duties of assessing the changing needs of the affected population,

participated in daily monitoring of flood levels in their regions, as well as door-to-door impact assessment visits to the affected population. They provided daily and weekly reports to State headquarters for further reporting to the central HQ in Khartoum and Humanitarian Aid Commission.

This was possible due to SRCS' widespread coverage, consisting of branches and their volunteers, providing an advantage which other structures do not have. SRCS was often first able to visit the affected areas and gather information on disaster. The results of these actions had a direct influence on designing the response plan of action, not only for the National Society, but also HAC.

Other volunteer actions included alerting the population of coming disaster, providing them with information on highest hazard factors related to their specific location (e.g. alerting them to start preparing for evacuation from locations close to imminent flooding), as well as advising them of what actions they can take to minimise the damage to themselves. Many volunteers were actually involved in relocating people to higher places, preparing meals for the displaced, clearing debris, helping in repairing bridges, and other.

Health •

Objective: To provide first aid, health education and basic health care by setting up mobile health clinics.

State branches of SRCS are members of state emergency committees, and as such participated in all stages of disaster response planning. SRCS is an auxiliary to government health departments in the regions. Following assessments and collected data on the number of affected families and their health needs, the assistance focused on providing both curative and preventive activities, complementing the local health structures' capacities, as well as targeting the affected population through intensive public health campaign.

As part of this strategy, a number of fixed and mobile clinics were reactivated into assisting the population in their catchment areas. In Gezira State this included two mobile clinics and one fixed, in Northern State SRCS supported five mobile clinics, while in Sinnar there were five mobile and two fixed clinics. The Ministry of Health (MoH) seconded medical doctors to all branches, one per each mobile and fixed health clinic, thus strengthening their technical capacities in assisting the population.

In the early stages of the disaster, the Danish Red Cross responded with an in-kind donation of eight New Emergency Health Kits (NEHK), each containing basic drugs and renewable medical supplies, as well as supplementary drugs and medical supplies. In co-ordination with the Ministry of Health, five kits were immediately dispatched to River Nile, Sinnar, Northern State and Khartoum, providing essential support in this emergency stage. The remaining three kits are being stored at the central SRCS warehouse in Khartoum for intervention in future disasters.

Based on the medical information provided by the Ministry of Public Health in River Nile State, during the most critical period of the disaster (August/September), the number of communicable diseases increased dramatically, compared to the same period in 2000.

Many beneficiaries were treated for different diseases, ranging from diarrhoea, measles, eye infections, malaria, meningitis, and other. Below is a morbidity table, showing a number of cases treated in each region by SRCS during the floods-related assistance.

Table (3) indicating morbidity rates in the affected states:

Disease	Khartoum	Sinnar	Gezira	River Nile	Northern State	TOTAL:
Malaria	1'448	1'826	1'394	6'555	3'332	14'555
ARI	1'157	1'518	757	600	8'185	12'217
Diarrhoea	701	733	578	400	5'238	7'650
Eye infection	156	263	197	-	-	616
Worm Infestation	36	0	0	200	500	736
Anaemia	266	445	200	-	-	911
Ear Infection	49	164	150	-	-	363
Others	595	511	475	-	-	1'581

To help the clinics in Sinnar and River Nile, an addition basic medical kit was purchased with the funding from German and Norwegian Red Cross societies and distributed to Sinnar and River Nile states.

Health education component was implemented through disseminating of health information, conducted through public seminars, home visits, and using local media to convey important public health messages. The aim of the public health education was to provide the most vulnerable with preventative information, in order to reduce the escalation of waterborne diseases. The education included a range of subjects, such as malaria, chest infections, diarrhoea, disease management, water resource management, better hygiene and sanitation practices, malnutrition related problems, and many other.

Through its extensive network of volunteers, the National Society Health Department experienced long tradition in implementing health promotion activities. During, as well as following the emergency phase of floods response, a total of 892 volunteers provided public health information on different health and hygiene problems commonly encountered in similar situations, to more than 80,000 persons in five flood-affected states.

Gezira branch of the National Society conducted training of local community leaders in First Aid in disasters, through 27 seminars, targeting 1,350 persons. In Sinnar intensive First Aid training campaign was conducted (38 seminars) in twenty-seven most affected villages, targeting 2,315.

Although the achieved objectives of the programme were exceeded, particularly through the health component, many problems and constraints were encountered during the implementation. Transportation resources were insufficient and situation further exacerbated by limited accessibility to remote flooded locations, causing some delays in reaching the needy.

Water-sanitation **

Objective: To provide clean water and sanitation facilities to estimated 10,000 affected persons

In flood-affected state localities, the volunteers took part, alongside the communities and water sanitation environment departments, in water drainage activities, reinforcement of river banks, destroying garbage (Singa and Dindir provinces), and other actions aimed at mitigating the disaster effects and minimising the risk of disease outbreaks. The SRCS headquarters provided 20,000 empty sacks which were, once filled with sand, used in riverbank reinforcements in the affected states. This was done with the help of funds from British, German and Japanese governments via their Red Cross societies.

As part of an effort to reduce the risk of disease outbreaks, malaria in particular, the volunteers carried out spraying campaigns, using fogging machines provided by SCOVA

(Sudanese Council for Voluntary Agencies). In River Nile State, 150 volunteers sprayed stagnant pools of water with a mixture of diesel and used engine oil to prevent the breeding of malaria-spreading mosquitoes. In Sinnar State, some 150 volunteers participated in spraying of almost 3,000 houses to further reduce this risk.

With the funds from the Norwegian Red Cross/Norwegian government, sixteen water pumps were provided to five States (five to River Nile, four to Sinnar, one to Northern State, four in Khartoum and two to Gezira), assisting the communities in obtaining safer source of potable water.

In co-ordination with the Ministry of Health, SRCS volunteers helped to ensure the supply of clean and sanitary water to displaced persons at the SRCS centres and temporary shelters. Clean water was provided to a total of 480 displaced at Sinja centre and Sinnar State. During the first days of flooding, in collaboration with the Civil Defence, the volunteers also took part in providing clean potable water to affected in Singa province. Each State branch received water purification tablets (197,000 tablets in total), which were distributed to the beneficiaries, together with the instructions and measures required per one litre of water.

In addition, different other items were distributed to the branches, including 6,000 jerrycans, almost 6,500 mosquito nets, and close to 6,000 soaps and 130 litres of disinfecting solution, for further beneficiary distribution. Apart from these items, 52 water/sanitation spraying pumps, over 1,700 litres of abate liquid and 500 kg of k-othrine (latrine disinfecting chemicals) were dispatched to the branches. For the purpose of clearing up the remaining debris and water drainage activities, almost 2,500 pieces of hoes, shovels and picks were distributed to affected states. For further details, please refer to table 4.

Sanitation chemicals, purification tablets, mosquito nets, and other items, were purchased with the funds provided by the following governments and their respective Red Cross national societies: American, British, German, Japanese and Norwegian.

Relief distributions •

Objective: To provide non-food relief items to estimated 10,000 vulnerable displaced persons

A distribution plan was prepared by the local emergency committee in collaboration with SRCS branches and the Humanitarian Aid Commission (HAC) at the Federal and State level. In addition to the emergency assistance provided from SRCS Disaster Preparedness stocks (table 2), the following items have been locally procured and distributed to the most affected beneficiaries in six of the affected States.

Table (4): Non-food item distribution to most affected population in seven Sudanese States

State	Blankets (pcs)	Plastic sheeting (pcs)	Cooking sets (sets)	NEHK (kits)	Hoes (pcs)	Picks (pcs)	Shovels (pcs)
River Nile	1'500	3'600	608	2	200	100	150
Sinnar	550	2'000	305	1	500	0	200
N State	350	1'000	200	1	300	250	200
Khartoum	500	750	0	1	0	250	300
Gezira	200	0	100	0	0	0	0
Kassala	0	400	0	0	0	0	0
White Nile	100	100	0	0	0	0	0
TOTAL:	3'200	7'850	1'213	5	1'000	600	850
REMAINING BALANCE:	0	518	415	3	220	440	190

Table (5): Water/Sanitation distribution to most affected population in six Sudanese States

State	Jerrycans (pcs)	Chlorine tabs (pcs)	Mosquito nets (pcs)	W&S sprayer pump (pcs)	Fogging device	Soap (pcs)	Disinfecting Solution (lit)
River Nile	800	67'000	2'250	22	-	2'250	40
Sinnar	700	30'000	1'700	10	-	900	40
N State	400	40'000	1'200	8	-	1'800	30
Khartoum	600	0	500	6	-	900	20
Gezira	500	40'000	800	6	-	0	0
White Nile	0	20'000	0	0	-	0	0
TOTAL:	3'000	197'000	6'450	52	1	5'850	130
REMAINING BALANCE:	2'363	0	30	1	1	6'165	137

The remaining balance, including 9,000 empty sacks, is being stored at the central DP warehouse and will be used by SRCS to assist the most vulnerable in the event of future disasters.

Although not channelled through the Federation system, the Libyan, Kuwait and Iranian Red Crescent societies provided support and assistance with different relief items, sent directly to local government emergency committees. At the request of local government, the branches assisted in the distribution and monitoring of these relief items to the beneficiaries.

Shelter ••

Objective: To provide essential shelter to estimated 10,000 vulnerable affected persons

The target of this objective was to protect the displaced persons, whose houses and belongings were completely destroyed by the floods, from further exposure to vulnerability. Initially, some of the flood victims were accommodated by relatives, while others took shelter in schools and other public buildings. The conditions in public buildings were poor with people cramped in limited spaces with inadequate sanitary conditions.

Thanks to its efficient action and the funds provided by British, German, Norwegian and Japanese governments/RC societies, SRCS provided people with temporary shelters, easing the congestion. More than 5,000 beneficiary families received two blankets each. Similarly, more than 8,000 pieces of plastic sheeting were provided to the affected population, used to cover partially damaged houses, while used it as roofing cover for temporary shelter constructed from the branches of fallen trees. Beneficiaries were further assisted with more

than 1,200 cooking sets, as well as sanitary items described under water and sanitation sections.

Following a joint SRCS/Federation field visit during 11-12 October to Sinnar State, and identifying 500 families in seven villages of Dindir Province who lost their homes to the floods, immediate action was taken to prioritise them in receiving emergency shelter (500 pcs of plastic sheeting, 500 mosquito nets and 105 kitchen sets), as well as medical assistance.

Logistics •

A procurement committee was set up to purchase, receive and transport the essential relief items, ensuring quality of goods and their timely delivery. The committee consisted of members representing relevant SRCS and Federation departments. Procurement processes were conducted in accordance with the Federation standards, including comparative bid analysis of at least three suppliers with a selection of goods corresponding to the required quality.

The implementation of the procurement process took longer than anticipated due to a lack of sufficient SRCS logistical capacities as well as the fact that the SRCS headquarters staff was stretched to their maximum capacity, due to the parallel implementation of drought response and ongoing IDP and refugee programmes. However, the joint SRCS/Federation team overcame the problems and successfully completed their objectives.

Telecommunications •

To ensure smooth and quick flow of information between headquarters, volunteer units and branches, five VHF handsets were put at the disposal of volunteer teams who were assessing the extent of the damage in the affected areas. This allowed for an immediate feedback of information, allowing for efficient analysis and further necessary action.

However, it is clear that in the face of such frequent large scale disasters, SRCS should have a well-functioning communications network, linking branches with the headquarters in Khartoum. Where possible, each central branch should have a functioning telephone line, as well as HF base and mobile radio stations. With the support of the donors, SRCS is in the process of procuring one HF base and mobile station for the Sinnar State branch, which will greatly improve their communication capacities.

National Society Capacity Building •

Clearly, the National Society has a number of advantages which makes them ideally positioned to complement the role of the government in disaster preparedness and response. This has been proved on numerous occasions. However, in order to effectively play this role, skills and capacities need to be further upgraded at the branch personnel, particularly in the areas of disaster preparedness and management. In Sinnar, two workshops were conducted for 260 participants in disaster management, as well as First Aid. Particular issues that were included concerned needs assessment, surveys, plan of action preparation, distribution and monitoring, as well as providing first aid to the injured. The participants included volunteers, community members and leaders, with a high participation from women.

Some delays in planning and reporting had a negative effect on timely processing of accurate information. These are caused due to branches' lack of sufficient technical knowledge of reporting and data analysis. In order to strengthen the disaster response capacities, disaster preparedness and mitigation training should intensively focus on reporting, statistical processing and record keeping at field and headquarters level respectively, with a special emphasis given to improved co-ordination at the headquarters level.

Furthermore, the branches also need to be well equipped with the necessary resources to both mitigate and respond to disasters. Recognising the lack of sufficient resources at some of the branches, this was addressed to an extent through current procurement of three computers (donated by Swedish RC and Norwegian RC), one each for White Nile, Sinnar and Northern State branches, as well as one Toyota Hi-lux vehicles each for Sinnar and River Nile state branches (supported by the Norwegian Red Cross). These resources have been allocated taking into account the existing branch resources, as well as resources supported by other programmes.

Bearing in mind Sudan's vulnerability to natural disasters and their regular occurrence, the Sudanese RC requires strong contingency plan, both nationally and regionally. Admittedly, these plans have not fully materialised up to present time, although considerable efforts were made in that direction. The National Society have been participating in a dialogue with the United Nations agencies concerning the joint co-operation in forming disaster response plans.

More importantly, DP assistance funded by Department for International Development (DfID), will essentially address the National Society's contingency issues, including creation and support of two regional DP centres (North Darfur and White Nile states), with fully functioning warehousing facilities and pre-positioned stocks, ready to be deployed in an event of a natural disaster in several surrounding states in the north and south.

As part of these DP activities, the National Society is conducting a risk survey of disaster areas, in an effort to geographically classify the country according to the nature and frequency of disasters, population numbers in these areas, minimal relief provisions required, and other information. In addition, the National Society is creating a database of available local suppliers, containing prices, availability of goods, their quality, delivery times and other essential information.

Although the importance of stock pre-positioning has always been clear to the Disaster Management staff of the National Society, this has never been possible due to relatively limited stocks available. In this context, and due to vast disaster-prone areas, it is difficult to choose a particular pre-positioning location. This has a significant impact on prolonging SRCS' disaster response timing factor.

Coordination

Emergency response to the floods in Sudan was co-ordinated by the Humanitarian Aid Commission (HAC) and OCHA, jointly responsible for sharing information between NGOs, government departments, communities and other stakeholders. With its well-developed network of branches, SRCS played a particularly important role in co-ordination of assistance, with its participation in interagency assessments, branches' daily grass-root level assessments and information feedback to the headquarters. At the same time, SRCS regularly received up to date information from the Council of Civil Defence, which comprises five state ministries.

SRCS and the Federation regularly attended the NGOs' flood meetings chaired by the HAC or OCHA. Moreover, the Secretary General was frequently contacted by the relevant authorities to participate in meetings and assessments related to floods activities, including the Council of Ministers' relief co-ordination meeting chaired by the vice-president of Sudan.

Financial & Reporting

The appeal sought CHF 1,293,933, and CHF xxxx was raised in a combination of cash and goods in kind.

The narrative for this report was completed in February 2002. Due to considerable financial backlogs within the SRCS and the need to clear large amounts of working advances before being able to adequately report on the figures involved in this appeal and other programmes, much financial work has been done during 2002 by the SRCS and the delegation. Issuance of this report has unfortunately been greatly delayed by this process.

Conclusion

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All International Federation Operations seek to adhere to the Code of Conduct and are committed to the Humanitarian Charter and Minimum Standards in Disaster Response (SPHERE Project) in delivering assistance to the most vulnerable.

For support to or for further information concerning Federation operations in this or other countries, please access the Federation website at <http://www.ifrc.org>.

This operation sought to administer to the immediate requirements of the victims of this disaster. Subsequent operations to promote sustainable development or long-term capacity building will require additional support, and these programmes are outlined on the Federation's website.

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