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A young girl with short, curly hair is smiling at the camera. She is wearing a light-colored, short-sleeved shirt with a dark, repeating geometric pattern. In the background, two people wearing white uniforms with a red crescent symbol on the back are visible, suggesting a medical or humanitarian setting. The background also shows a brick wall and some construction materials.

Sudan: from risk to opportunity

Flood risk reduction

Acknowledgements

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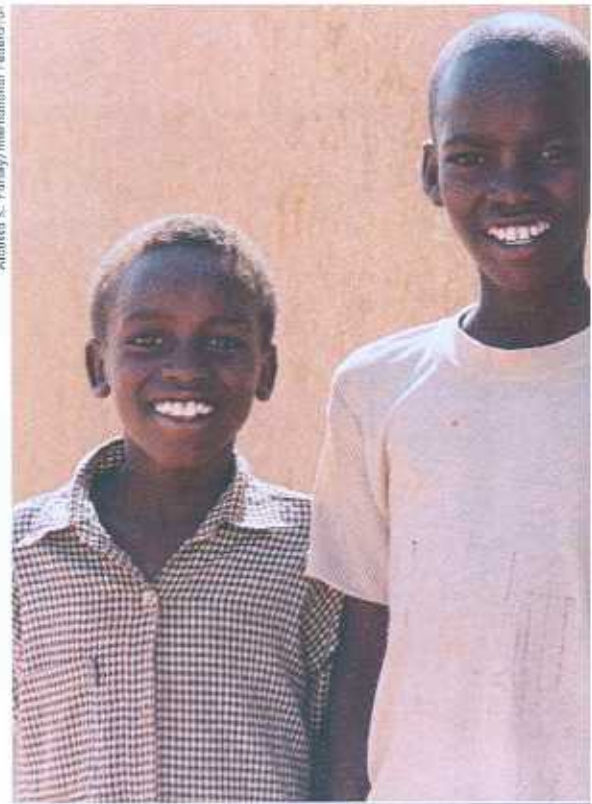
The risks

Despite poverty, political unrest and over 4 million internally displaced people, the Sudanese believe that the collective power of people can prevail. And, despite years of economic isolation, the spirit of humanity continues to bring humanitarian organizations, government donors and communities together to take care of the humanitarian business, one need at a time.

The partnership between the Sudanese Red Crescent Society (SRCS), the British government's Department for International Development (DFID) and the International Federation is one such example.

This case study is not an evaluation of the programme. Its purpose is to share with volunteers and staff of sister National Societies the experiences of the SRCS in community-based disaster preparedness. This case study also reflects insight from volunteers who work and live in communities which experience recurrent seasonal floods along Sudan's Nile and Akbara rivers.

Almusa K. Faray/International Federation



For risk reduction to be worth the effort, it needs to include material support for the people who cannot afford to buy a shovel.

The Sudan is one of the most vulnerable and disaster-prone countries in Africa. The country suffers from conflict, political instability, population displacement, food insecurity, epidemics, floods and poverty. Following a series of disasters in mid-1980s, disaster management became a key focus for the country. In 1985, the government of Sudan established the Relief and Rehabilitation Commission (today called the Humanitarian Aid Commission or HAC) whose purpose was to consolidate and coordinate humanitarian action throughout the country. The disasters of the 1980s also led to the emergence of many non-governmental organizations (NGOs) whose relief activities are today coordinated by HAC.



Almusa K. Faray/International Federation

According to HAC, between 1990 and 2001, the country experienced six major droughts that affected over 3.5 million people, six major floods that affected over 1.5 million people; and a pest infection in 1993 that affected the livelihoods of 1 million people. These disasters occurred against the backdrop of over 30 years of civil war and other regional conflicts that continue to make generations of displaced people and refugees.

Disaster preparedness

Since its founding in 1956, the SRCS has played a central role in providing disaster relief and social services. According to its mandate, the National Society has extensive responsibilities in assisting victims of war and disasters as an auxiliary to the government.

"We are the community" is the firm statement of the SRCS secretary general, Omar Osman; "our staff and our volunteers are deeply rooted and live in the same communities where our clients live."

Disaster preparedness (DP) is a core activity for the National Society's branches which cover 20 states throughout the country and together have over 250,000 trained volunteers. At the community level, the branches' most significant role is to collect information at the onset of a disaster and to mobilize human and material resources.

One of the greatest assets of the SRCS is that its branches can call upon more than 20,000 volunteers within hours of a disaster. These volunteers together with the branch staff are at the forefront of disaster preparedness, response, mitigation and social services to their communities.

The pilot project

The pilot project funded by DFID in the states of Khartoum and River Nile focused on capacity-building elements that are of significance to fast and effective response to floods. When the SRCS was presented the opportunity to participate in this initiative, it turned to its 2000-2004 Strategic Workplan for guidance and identified three activities that matched its DP priorities.

Activity 1 Develop a national disaster preparedness plan and policy

A disaster preparedness plan is the vehicle for all activities from disaster risk reduction to disaster response. Such a plan is developed with the goal to create an overall system for disaster-related activities in close collaboration with external agencies active in disaster preparedness and response. A National Society's external partners typically include federal and state governmental authorities, agencies of the United Nations (UN) and NGOs.

The SRCS initiated this activity through a brainstorming session amongst the senior management and branch representatives. The group decided to hire the services of a team of consultants from the University of Khartoum with a background in organizational assessment and disaster management to lead the development of the DP plan and policy.

The decision to engage expertise available from within the country matches the International Federation's preferred approach towards organizational development activities.

Over the course of the project, the consultants from the University of Khartoum conducted an interview process with SRCS branches in order to map out risks, vulnerabilities, capacities and outstanding needs. The information gathered through this and similar research created the framework for the National Society's disaster preparedness policy and plan. This framework will be presented to SRCS branches and headquarters for a final

SRCS strategic goal no. 02:

Be adequately prepared to respond quickly to recurrent disasters by:

- reducing the level of vulnerability in the community
- encouraging disaster preparedness

SRCS strategic goal no. 03:

Improve the quality of assistance to disaster-affected communities by:

- strengthening SRCS/community emergency response to disasters
- carrying out emergency relief response for communities at risk
- encouraging communities to develop solidarity in disaster situations

Atsina K. Pursey/International Federation



In el Boga'a, the residents agree that the problem is with the settlement planning. People have been settled along the drainage systems. Mohtassen, a 29-year-old SRCS volunteer, summarizes the people's point of view: "We have the will and we have the know-how. What we don't have are the means. Educating our communities is the right thing to do but donors need to help us advise the government to radically correct its resettlement activities."

review prior to its presentation to the National Society's Executive Committee where it will be officially endorsed.

The relevance and value of the DP policy and plan can be judged only over a period of time, when it begins to be systematically applied to all activities, from disaster prevention to emergency service delivery. For such a plan to remain valid over time, it must be constantly monitored and adjusted to reflect any significant changes in the country and the National Society.

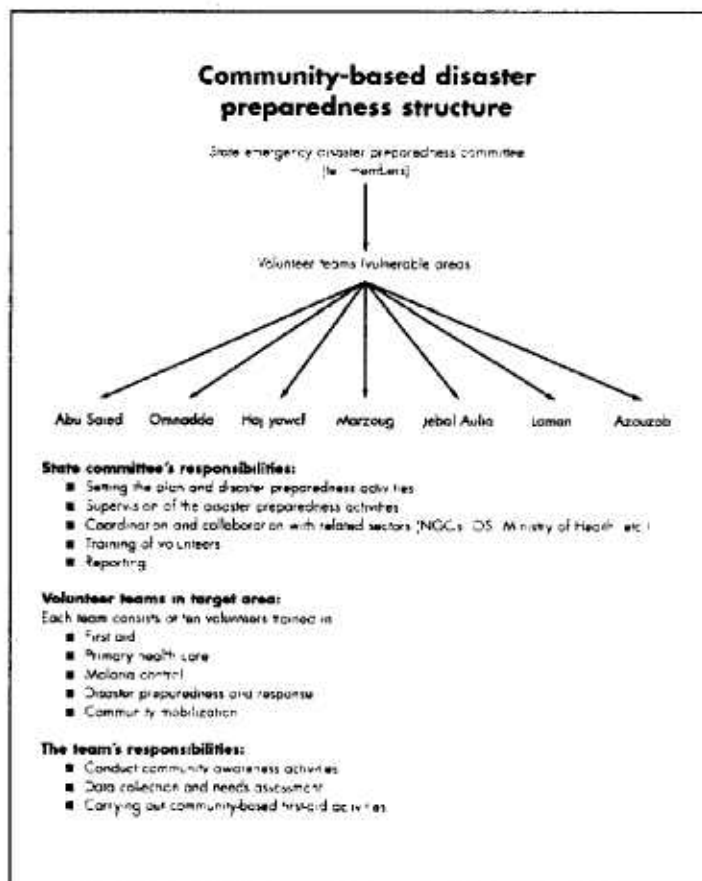
Abbaso K. P. / Sudan / International Federation



Chronic drought in Kordofan state forced people to move; some were displaced to the village of Rif al Jonoubi locality in Khartoum state. In terms of flood risk, the people in this village are even worse off than those in the overpopulated IDP camps, as the land they were given is in the middle of flash flood zones. During the last flash floods in 2002, 129 dwellings were destroyed.

Activity 2 Establish a system for early warning and rapid response

In line with its *Strategic Workplan* and the pilot project objectives, the SRCS took two steps to ensure it increases its capacities for timely response in at-risk areas: standardized training courses and formal cooperation agreements with partners.



Standardization

The National Society decided to introduce a standard training course on data collection so that the branches can collect the same core data and analyse the information using the same methodology and share the findings in the same time frame, regardless of where a disaster occurs. It is hoped that the standardization will improve timeliness and relevance of the SRCS response to disasters.

Training of staff and volunteers on community-based data collection, analysis and reporting exercise led to the development of a hazard matrix on floods which helps the National Society with both its disaster early warning system and its response planning (see Annex 1: Hazard Matrix: Floods-Khartoum State 2002).

To ensure rapid response and effective disaster relief services, the National Society created a standard form for use during and immediately after a disaster (see Annex 2: Needs Assessment Sheet).

The National Society also created a standard community based structure for disaster preparedness with pre-identified skills and responsibilities (see box.)

Cooperation

In view of the vastness of the country and its myriad of recurrent disasters, the SRCS also took steps to formalize its operational relations with other agencies so that resources can be joined and information can be shared in both emergency and non-emergency activities such as preparedness and mitigation.

To this end, the National Society formalized its cooperation with the UN Children's Fund (UNICEF). Through a bilateral agreement, UNICEF agreed to provide supplies and equipment to the SRCS for disaster preparedness.

The SRCS also began discussions with Save the Children UK so that the two organizations could collaborate in contingency planning and monitoring in high-risk areas. The UN's Office for the Coordination of Humanitarian Affairs (UN-OCHA) and Sudan's Humanitarian Aid Commission (HAC) also expressed their interest in collaborating with the SRCS to establish a nationwide early warning system.

Activity 3 Increase community preparedness training and response capacities

Following International Federation standards set for both disaster preparedness and disaster response, the SRCS designed specific training modules for community leaders and the National Society's volunteers and Branch staff. Participants from 75 communities received training in risk mapping and contingency planning.

The purpose of the National Society's contingency plan for seasonal floods is to mitigate flood damage and human suffering through preparedness measures, based on the National Society's experiences and existing capacities in human resources, skills and infrastructure. The contingency plan was activated in a limited way during the August 2002 floods and will be evaluated in order to assess its validity and shortfalls. (See Annex 3: Contingency Plan for Seasonal Floods, Khartoum State Branch).

In addition to community training in contingency planning and risk mapping, the pilot project provided for select branches to receive computer training in word processing, spreadsheet and Internet.

The National Society also translated and distributed a collection of International Federation material that introduces international policies and standards in disaster preparedness and response. The material included the International Federation's *Code of Conduct for the International Red Cross and Red Crescent Movement and NGOs in Disaster Relief* and *Sphere* standards. The purpose of disseminating this material is to share knowledge with volunteers and staff with the aim to educate.

Contingency planning

The UN Development Programme (UNDP) defines *contingency planning* as a forward planning process in a state of uncertainty, in which scenarios and objectives are agreed, managerial and technical actions defined and potential response systems put in place in order to prevent or better respond to an emergency or critical situation.

One of the key characteristics of a realistic contingency plan is to address an organization's limitations such as centralized decision-making practices especially vis-à-vis release of financial and material resources. A contingency plan must ensure delegation of authority regarding resources to the branches. Another key element when developing a contingency plan is to acknowledge the differences from one community to another. A workable contingency plan must be tailored to the characteristics of at-risk communities. For instance, a contingency plan for the internally displaced people's camps in Khartoum cannot be the same as a contingency plan for the residents of Tuti island.

Changing the original project plan

Initially the project plan focused only on training. But when it came to the implementation phase, Abu Baker Tigani, the National Society's disaster preparedness and response coordinator, realized that something was missing from their approach. "At our first technical planning meeting in Kigali, I met with my colleagues from Ethiopia and Rwanda," he recalls. "By midweek it became evident that for this project to be successful in the long term, the SRCS needed to focus on both activities and systems."

Often the best ideas come from group discussions. If a new idea can make a difference to the success of a project, it is possible to discuss it with the partners and agree to revise the plan. The SRCS and the International Federation renegotiated the project plan with DFID. Everyone agreed that in addition to training, the SRCS should design a national disaster preparedness policy and plan. This plan will be the first of its kind in the country.

Involving the communities

"If a project directly involves the residents of targeted communities, it is crucial to discuss details with them before finalizing plans. Ownership must be with the whole community not just our National Society."

Sudan Red Crescent Society

The SRCS branches in Khartoum state and River Nile state identified the players in disaster response: volunteer leaders, council of local authorities, and residents in high risk areas. The National Society invited each group to send representatives to workshops on community-based disaster preparedness. A letter explained the purpose of the DFID funds, the goals of the project and the role of the community.

The communities responded enthusiastically to the invitation. Through a series of three-day workshops in eight locations, the SRCS explained what community-based disaster preparedness and risk reduction mean. In addition, the National Society was able to create an environment where people discussed the role of residents in high-risk areas to participate in preparedness activities.

The participants worked together to develop a data collection format to help them prioritize the risk areas and they tested the format with different communities. Testing the format with the residents before finalizing it, was the most important step in making sure that the initiative was owned by the community.

For example, the format had asked that data collected during a disaster is sent back to the SRCS in less than 24 hours. The community asked for a minimum of 48 hours because of unreliable telephone lines and the fact that most of them did not have means of transport. The community also asked that collected data be sent to local authorities. They felt strongly that everyone involved in preparedness and relief services should have access to the same information and at the same time. The SRCS agreed to these changes, based on simple but important insights from the residents. The initial effort to help residents understand the importance of their role resulted in a shared ownership of risk reduction activities.

Community motivation

In 2000, the late Ernst Lohman of the UN Disaster Management Team-Sudan wrote that one of the cruellest effects of poverty and uncontrollable urbanization was the loss of a sense of individual and collective responsibility. Although the Sudanese government, like any other, government bears the primary responsibility for taking care of its citizens, the latter are responsible for becoming part of the solution.

With this in mind, SRCS volunteer leaders ensured that residents and authorities were involved in order to integrate everyone's role into the larger state response plans.

They did this by involving them in making the hazard map of the area. The process of gathering the data as a large community team and then drawing the map by hand created an environment for lasting motivation: this simple exercise put into practice the principle of individual responsibility to make a collective commitment to reduce shared risks.

The consensus of Sudanese volunteers and staff is that when the residents understand that their participation makes a difference, there is a good chance that they will serve as frontline responders in the next disaster.

"Residents can help us to help them more effectively," explains Dr. Mujahid, head of health services for the Khartoum state branch, "and it is especially important in the internally displaced people's camps and urban squatter areas where the scope of humanitarian needs is beyond any one organization's capacities."

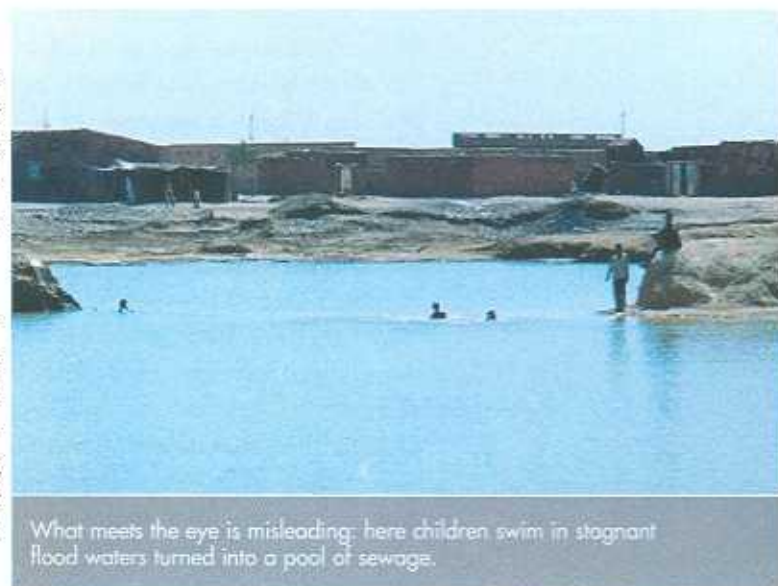
"Creating the right environment for the community to help itself should be the primary strategy for community-based activities. We believe that people at risk can be an integral part of our services for them. Unity is a strong element of the Sudanese culture. This pilot project allowed us to give this unity a new form of community-based organization."

Abu Baker Tigani, SRCS

Poverty and resettlement

In Sudan, urbanization and population movement continue to perpetuate poverty. Poor people settle everywhere including close to river banks in flood and flash flood zones. Protecting these communities with dykes is one way to mitigate the risks, but in the long run the natural discharge of rivers must be respected.

According to the UN, increased flooding in Sudan is partly because the same amount of water that used to be discharged in months now does so in just a few weeks. Another reason for increased flooding is the deforestation activities not only in the Sudan, but also in neighbouring Eritrea and Ethiopia. Deforestation, together with recent climate changes, increases the speed of water discharge and



What meets the eye is misleading: here children swim in stagnant flood waters turned into a pool of sewage.

significantly contributes to erosion and silting in the lower plains where many people live. This is true in Khartoum and River Nile states.



Abbas K. Purye/International Federation

"Our biggest problem is that without sandbags, digging tools, jerrycans and water purification tablets, not to mention temporary shelter material like plastic sheeting and tents, the training itself does not reduce risk or realistically prepare us."

-Mrs Saleiman, Khartoum branch volunteer

Khartoum state has the two largest camps for Sudanese people who are displaced because of war and disasters such as cyclical droughts in the north. Close to 4 million people live in these settlements, referred to as IDP (internally displaced people) camps. Poverty is a collective reality and the residents constitute the single highest at-risk segment of the Sudanese population. They are at risk for many reasons, including the fact that they live in inadequate dwellings, their settlements are along or inside the flood zones and they are amongst the poorest of the poor.

In Al Amir, as in other high-risk localities, poverty and displacement undermine common sense and the possibility to practise traditional coping mechanisms. To assume that poor people do not see the problem is far from the truth. Even in the heart of the squatter areas, residents understand that their mud homes cannot withstand water, that the location of their dwellings is not safe and that it would be best for them to move. What they do not have is the means to solve or, at a minimum, mitigate their problems.

They need basic material to safeguard their shelters or the possibility to move elsewhere. Mrs. Osmahalima Sharif, a 40-year-old resident of Al Amir, points out during a community gathering that "because of the grass rooftops, we can't make any improvement to our shelter, if we had some plastic, then at least we could protect ourselves and our belongings during heavy rains". Because of the lack of resources in this community, some people who lost their shelter during the 1996 floods are still living in the open.

For an immediate risk reduction the solution is not complex. Residents could be involved in mitigating their own risks with some basic technical direction – such as where to dig canals and build flood walls that will direct flood waters away from their homes – and the necessary hand tools and sandbags. Technical expertise is available from Sudan's Ministry of Planning and Resettlement and hand tools are available locally. Yet most funds for disaster preparedness and risk reduction are directed towards training and planning.

"Poverty leaves us no choice and our situation is not going to be better with education alone. Education without any material means is just a reminder of the reality of our daily lives," explains Mohammed, a Khartoum resident.

Further north, in River Nile state, two rivers meet and create one of the highest-risk flood zones in the country. The Akbara and Nile rivers provide water for this agro-pastoral population. Since the majority of the people in this state live from agriculture, they have no option but to remain along the river banks. The government has designed a resettlement strategy to move villages further back from the banks. But the people do not want to move because of their economic reliance on farming which dates back many generations.

During the 2001 floods in al Nakheieh al Shohada, the historic site of the first Sudanese confrontation with the British army in 1889, the people agreed to move as part of the pilot resettlement project of the government. During the flood, all the houses were destroyed and the government offered a new site for the village, about 300 metres away from the original village. The residents agreed to move in return for a new school and health centre.

However, the villagers now regret the decision to move because the local government could not carry through with resettlement support due to lack of money. It provided one bore hole, but the school and the much-needed health facility are missing.

Mahjoob, a farmer and a volunteer with SRCS who participated in the risk reduction program explains what the people of his village feel. “If we had known we would not receive help, we would have stayed by the river. We moved because we thought our lives would improve. The floods made us suffer for two months. This move is making us suffer every day. We lost our health centre, the school and our closeness with the river. We need water to survive. Our flood risks have reduced, but now we face other risks every day.”

The River Nile state’s planning minister confirms the strategy of the government to resettle 60 villages away from the river banks. He also confirms that they do not have the resources to carry it through. Mr. al Hassin, the Ministry’s general manager for the region explains, “We insist on a policy of resettlement because in the long run this is the only solution, even if we continue to fortify the river banks. We might have to wait for years until we have the resources. Until we have money, we can only continue to look at resettlement as a strategy.”

An oasis of resilience

Resettlement out of the flood zones may be the government’s long-term solution and traditional coping mechanisms may not be relevant in the IDP camps or along the river banks in River Nile state, but that is not the case on Tuti island.

Tuti island is in a delta which lies between two rivers that join to make a third, the Nile. The population of Tuti is from the northern region of Sudan and belongs to one tribe, the Mahes. The island is prone to floods and has been so for many decades. The residents in Tuti have built flood walls, some of which date back two generations; the most recent are five kilometres’ long and separate the agricultural fields by the river from the small town in the centre of the island where the inhabitants live.

“The human wall is what we inherited from our great grand fathers and the knowledge that our land is sacred and must be protected with our body and our soul.”

Sheikh Taha, Tuti Island

Sheikh Taha speaks proudly of the disaster response guidance handed down to them by their forefathers: “When we feel that a flood is on the way, we build a human wall on top of the flood walls.” The residents actually create a body barricade so that the water cannot reach their homes. This is what they have done for generations and they do not plan on changing it. Sheikh Taha and a group of residents explained that their response method may be strange but it works for them: “First, we send the children to the rooftops, then one group of villagers prepares sandbags and the rest of us cascade our bodies on top of the flood walls until the sand bags are ready and stacked. Then, we move out of the way of the water.” The residents lock their arms tightly with each other and if the water continues to rise, they pile up their bodies on top of one another to increase the height of the original flood walls.

What the Tuti residents also do to lower the risks and increase their preparedness is to keep in contact with the National Society through its unit on Tuti which is equipped with handheld radios. The entire community turns into spontaneous volunteers, as they communicate new information to the SRCS Khartoum state branch on the mainland. SRCS response kits for Tuti mainly include antidotes to the bites of scorpions and snakes that crawl all over the island as the flood waters recede.