Zambia Red Cross Society
Building resilience among households in the Zambezi River Basin
The International Federation of Red Cross and Red Crescent Societies (IFRC) is the world’s largest volunteer-based humanitarian network. With our 190 member National Red Cross and Red Crescent Societies worldwide, we are in every community reaching 160.7 million people annually through long-term services and development programmes, as well as 110 million people through disaster response and early recovery programmes. We act before, during and after disasters and health emergencies to meet the needs and improve the lives of vulnerable people. We do so with impartiality as to nationality, race, gender, religious beliefs, class and political opinions.

Guided by Strategy 2020 – our collective plan of action to tackle the major humanitarian and development challenges of this decade – we are committed to saving lives and changing minds.

Our strength lies in our volunteer network, our community-based expertise and our independence and neutrality. We work to improve humanitarian standards, as partners in development, and in response to disasters. We persuade decision-makers to act at all times in the interests of vulnerable people. The result: we enable healthy and safe communities, reduce vulnerabilities, strengthen resilience and foster a culture of peace around the world.
Zambia is situated in the tropical south-central portion of Africa. Most of the country enjoys a temperate climate. Low-lying areas, such as the valleys of the Zambezi, Luangwa and Kafue rivers and the shores of the country’s lakes, have the highest temperatures in Zambia. The hottest months of the year are August through to October. The months of May to July are only slightly cooler.

The rainy season begins in the middle of November and lasts until April. Rainfall is generally highest in the northern provinces of Zambia, decreasing from north to south.

Most of the country’s streams ultimately drain into the Indian Ocean via the Zambezi River and its main tributaries: the Luangwa, Kafue and Lunsemfwa rivers. With a total length of 2,735 kilometres, the Zambezi River is the longest river in Zambia.

The upper Zambezi passes through flood plains and swamps. It winds its way through Angola, along the borders of Namibia, Botswana and Zimbabwe, before flowing through Mozambique and into the Indian Ocean.

The river offers tremendous health, agricultural and economic benefits for the 32 million people living along its basin, as a source of drinking water, fish, irrigation for agriculture, transport, hydro-electric power and tourism.

It is also home to some of the most evident vulnerability in sub-Saharan Africa. Climate change, coupled with environmental degradation, has intensified the annual flooding seen along some stretches of the river, displacing and affecting hundreds of thousands of people each year.

Communities along the river basin have been living with disasters for centuries, with their responses typically based on traditional and social ties. However, in recent years, communities have faced an increase in the frequency and intensity of disasters, a shift attributable in part to climate change. Once the waters recede, vulnerable communities are then exposed to outbreaks of waterborne diseases such as cholera, and vector-borne diseases such as malaria.
The frequent flooding of the river increases the vulnerability of river basin communities and make them live in a perpetual and devastating cycle of displacement and suffering.

The International Federation of Red Cross and Red Crescent Societies (IFRC) and the Zambia Red Cross Society recognize that communities living along the river basin require assistance to strengthen their capacity towards disaster preparedness and promotion of food security and livelihoods. The Zambezi River Basin Initiative (ZRBI) was started in Zambia in 2012 focusing on the districts of Sesheke and Kazungula. The ZRBI aims to address these needs in an integrated way, to ensure that communities along the Zambezi river basin are more resilient and secure in the long term.

This case study provides an example of a more resilient and secure community-based food security and livelihoods initiative implemented in Sesheke and Kazungula and can be used as a blueprint for other communities facing similar crises and challenges.

## Map and facts

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### KEY FACTS

- **Location:** Southern Africa, landlocked country east of Angola.
- **Land area:** 740,724 sq km
- **Population (2014 est.):** 14,638,505
- **Capital:** Lusaka
- **Climate:** Generally dry and temperate, tropical; modified by altitude; rainy season (Oct. to April)
- **Unemployment:** 15% (2008 est.)
The Zambezi River Basin Initiative programme

Project duration: 2012 – 2015
Partner: IFRC

The IFRC developed a historic initiative called the “Zambezi River Basin Initiative (ZRBI) for the purpose of ensuring that communities along the Zambezi River are better prepared to meet the challenges of disasters caused by drought or flooding in the short term, and to become more resilient and secure in the long term.

In Zambia, this initiative is implemented by the Zambia Red Cross Society. The programme focuses on reducing the impact of disasters on communities as well as on improving the quality of lives of the people living along the Zambezi river basin through comprehensive, sustainable and integrated disaster preparedness and management including food security and livelihood initiatives.

Overall goal of the Initiative

The overall goal of the ZRBI is to reduce the impact of challenges facing communities along the Zambezi river basin, and improve the quality of their lives and livelihoods, through comprehensive and sustainable disaster management, branch development and healthcare programmes.

Objectives of the initiative

• To reduce the risk and impact of disasters through community preparedness
• To increase community access to adequate and nutritious food
• To increase capacity to implement disaster preparedness, response and recovery operations.

The programme target is made up of about 22,000 acutely vulnerable people threatened by floods and drought in Zambia’s Sesheke district in western province and Kazungula district in southern province.

Programme design and implementation style

The programme is implemented in selected communities of the Sesheke and Kazungula districts. In each district a project officer is employed to put the programme into operation with community members, to identify and co-ordinate partnerships in the district, and to conduct regular monitoring to ensure that outcomes are achieved. Relevant partners identified in this programme at district level are: government departments of agriculture, veterinary (livestock and their extension services) and meteorology. With these partners, the ZRBI implemented the following activities:
• Capacity building towards disaster preparedness and early warning
• Household vegetable gardening and upper-land field crop cultivation
• Household small animal rearing.

Field demonstration and lead farming strategy

In its implementation of activities, the ZRBI adopted a field demonstration strategy. In following this approach, the departments of agriculture, veterinary and meteorology
are identified by the Zambia Red Cross Society as critical bodies to offer technical knowledge and skills in agriculture and weather patterns, through trainings. The particular staff identified are the District Agriculture Co-ordinator (DACO), the District Veterinary Officer (DVO), the District Meteorological Officer and the Camp Extension Officers.

Lead farmers are then identified in each community. These are farmers who are already engaged in farming and have basic knowledge or skills in farming. The districts’ lead farmers together, with the Zambia Red Cross Society project officer, are then trained by the technical staff from the government departments of agriculture, veterinary and meteorology. Lead farmers are an important element in this process because they are known to be farmers in their communities and are therefore a trusted source of agricultural information sharing. They act as gatekeepers in the process of communication information about a new innovation.

When the lead farmers are trained, they in turn train community members by way of setting up demonstration fields or gardens or animal houses. They use these field demonstrations to teach or share knowledge and skills to promote community resilience towards disasters through food security and livelihood initiatives. The purpose of the demonstrations is to show, in a practical way, the advantages of a proposed innovation. Therefore, they act as persuaders in adopting new methods. In this way, it was noticed that demonstration fields allowed for practical skill trials by learners in helping them to replicate those skills at the household level. This strategy has helped to educate beneficiary farmers through to becoming well-informed and skilled farmers. The trainings conducted in the demonstration strategy include: disaster risk reduction (DRR) and preparedness and early warning, soil management, as well as crop and animal management skills.

Below is a diagrammatic representation showing the flow of trainings and target audience to support the Demonstration Strategy.
After training, inputs for gardening such as maize seed and cowpeas for upper-land crop production and vegetable seeds like cabbage, tomato, rape and Chinese cabbage were distributed to beneficiaries. Insecticides, herbicides and water pumps were distributed to household farmers too. Crop cultivation was linked to the multiplication of seeds and the diversification of beneficiaries’ agricultural output. Additionally, goats and chickens were provided to beneficiary farmers as starter packs.

As a result, the use of the demonstration fields and the lead farming strategy enhanced the adoption of food security and livelihood practices among the vulnerable farming households in Sesheke and Kazungula communities. This was evidenced by the great number of beneficiaries who copied the skills they learnt from the demonstration fields and applied them in developing their household fields and gardens.

The role of Government, through the district offices of the departments of agriculture, veterinary and meteorology, continued to play a critical role, even after training the lead farmers. This included the provision of regular monitoring of demonstration fields and even of the household fields and gardens by means of providing technical and back-up support to the programme and its beneficiaries in conjunction with the Zambia Red Cross Society Project Officer.

Also, the use of community action plans to implement activities helped to clearly communicate the roles and responsibilities for both the communities and the Zambia Red Cross.

Jane Sampondo, a 49-year-old woman, married with six children and living in Sinyendende village in Kazungula district, was taught ways of detecting early-warning signs of drought and learnt methods of remaining resilient to such disasters. She states that before becoming a beneficiary she used to be a victim of drought as she would lose crops due to lack of water. Over the past year, she has been able to predict the weather patterns and this helped her to take measures to prevent her household from hunger by embarking on gardening, an activity she could manage even during times of drought.

“For me, when I noticed signs of drought at the onset of this rainy season, I immediately decided to embark on vegetable gardening near the river because I could easily water my vegetables using the river water. It was easy for me to notice some signs that rain would be a problem this season. I started gardening with assistance of the seed packs and the knowledge provided by the Zambia Red Cross Society,” said Jane.

**Positive impacts**

**Disaster Risk Management and Early Warning**

For centuries, communities along the river basin have lived a sedentary life with disasters. Their responses have been based on traditional ties of shifting from the
flooded plains to higher land or from drought-affected areas to swampy land, depending on the kind of disaster that has affected them. In recent years, communities have faced an increase in the frequency and intensity of disasters like flood and drought because of climate change.

Trainings such as the community contingency planning process, early warning and early action and climate change, basic disaster risk management and vulnerability capacity assessment, among others, have helped the communities to better prepare and predict weather patterns.

Therefore, the ZRBI in Sesheke and Kazungula is an example of how the Zambia Red Cross Society’s DRR and early-warning activities have been helping communities. Through the community lead farmers, beneficiaries have been trained about how to use seasonal calendars to facilitate early planting of seeds, and to anticipate weather which can lead to droughts or floods. The trainings have helped increase awareness and prediction of the looming dry spells (drought) or floods and developed a readiness for adopting drought-coping strategies when needed. These skills have enabled communities to grow a range of different crops that are drought or flood resilient. Additionally, cultivation in swamps, depending on seasonal factors, was promoted. Beneficiaries have become more knowledgeable about DRR and disaster preparedness.

Consequently, most beneficiaries are now able to predict the dry spells and the types of crops to grow in anticipation of these dry periods. This activity has assisted many farmers living along the river basin to build their community’s resilience towards disasters and ultimately improve food security in the long term.

**Food security and livelihood self sufficiency**

A total of about 22,000 beneficiaries in both Sesheke and Kazungula districts received seeds, together with insecticides and herbicides. They were then taught conservation farming techniques as the best methods of cultivation to ensure that upper-land crops and vegetable crops grow well. Because of practising conservation farming the quality of soil in the beneficiary farmers’ fields improved and this in turn has helped them to increase their yields because the fertility of the soil has been organically replenished.
Before she began growing vegetables, Charity’s usual meal was Nshima (maize porridge) with fish caught from the Zambezi River. Because she did not have enough food, she used to eat only once a day on average.

Today, Charity is proud that her family is able to eat three meals a day because she can harvest her own vegetables from their field. “As you can see, my children are now able to have three meals a day,” she said.

With gardening, Charity is able to enhance her household meals with vitamins and minerals from the vegetables. So, her family can now have well-balanced meals. “I am able to sell extra vegetables to earn income. I harvest twice a month on average. I earn 700 Zambia krachaper harvest. I use the money to buy other foods to balance our household’s diet. My children are healthy and no longer get sick easily. My two-year-old child weighs 13.5 kilograms. According to the nurses at our local clinic, my child is growing healthily,” boasted Charity. “I also use the money to support my children at school and this has made me a happy woman,” she added.

Farmers were further trained in skills of increasing soil fertility in their fields and gardens through the use of organic manure. So, beneficiaries have been trained to make compost manure for their fields using animal droppings. This was more evident in areas where beneficiaries were rearing small animals such as goats and chickens. As chemical fertilizers are expensive and cause damage to the natural fertility of the soil, beneficiaries were encouraged to use animal manure. Most beneficiaries therefore adopted the use of this organic type of manure to improve their soil and enhance its fertility. As a result, their crops grew well and their yields increased significantly.

Sydney Mwiinga, 36 years old and married with four children, lives in Mumbela village in the Sikaunzwe area of Kazungula district. He argues that his life and that of his family has changed because the ZRBI has enabled him to own two cows, to establish a carpentry workshop and it has provided his family with a DSTV entertainment unit. Sydney explains that when he was recruited as a beneficiary in 2012 he was trained by a lead farmer in crop and animal management, and early warning and preparedness for two weeks. He then received two chickens and vegetable seeds as starter packs from the Zambia Red Cross Society. A year later, the two chickens had multiplied to 40 in number and he began selling them. He decided to give up vegetable growing as he realized that his passion was rearing chickens.

Today, Sydney has established a cycle of chicken sales whereby he sells 20 chickens every three months at ZMK 35 (USD 5) per chicken, making a total income of USD 100 every three months. He incurs no costs for rearing them as they are raised as free-range poultry.

He used his income from chickens to buy carpentry equipment and has established a carpentry workshop. He produces chairs, beds and cupboards. Demand for his products has grown such that he has employed a 29-year-old worker, married with a child, to help with production. Sydney spends a total of ZMK 315 (USD 45) to produce a set of chairs and sells the same set at ZMK 700 (USD 100). He pays the worker about USD 13 on a commission basis. This leaves him with a profit of about USD 43 per production.

Sydney has continued to grow his income from chickens and carpentry to enable him to buy two cows for hiring out for ploughing. This too has contributed to the growth of his income that he has been able to buy corrugated iron sheets for roofing his house. He has also bought a satellite television for entertainment for his family. Sydney further uses the money from his businesses to provide for his children’s school fees and to pay for medical bills.

With the provision of seed packs, knowledge of managing soil fertility and of predicting weather patterns, together with supply of animal starter packs, communities were encouraged to engage in food security activities according to their needs and resources.
Several households engaged in growing vegetables. Their gardens have flourished owing to the knowledge and skills acquired through the use of the demonstration fields and from the frequent monitoring of follower farmers by the lead farmers.

This has resulted in increased household crop harvests. Now, many households have enough food for their needs. Because the diet of most beneficiaries living along the Zambezi River consists of Nshima (maize porridge) and fish, vegetables have provided them with essential minerals and vitamins. This, therefore, has given the majority of farmers and their households a balanced and diversified source of food. Excess yield is sold to generate income to enable some to purchase other household needs and to pay for their children’s school fees.

Other beneficiaries have engaged in the rearing of small animals. They also make use of their improved knowledge and skills in animal husbandry obtained from trainings and receive ongoing veterinary assistance from Community Extension Officers and lead farmers.

This has helped beneficiaries to maintain and grow their livestock despite the incidences of diseases and other problems. Consequently the number of their goats and chickens has multiplied substantially in a three-year period. This has provided beneficiaries with protein from meat consumption. Similarly, households have been provided with the necessary proteins in their diet, leading to the community’s improved nutritional status. Excess animals are sold to raise additional income to enable them to afford other household needs and to send their children to school.

Lessons learned

• Partnership with the government stakeholders at a district level helped to institutionalize the programme and to ensure its quality through continuous technical support. This was seen by a number of joint programme monitorings (conducted by Red Cross with government stakeholders) and facilitations of trainings for beneficiaries.

• The linking of the livestock and crop management programme to agricultural best practices and disaster preparedness provided a holistic approach in ensuring that food security and livelihoods are sustainable and resilient to sudden events along the Zambezi river basin.

• Trainings provided beneficiaries with the capabilities to maintain their livestock to achieve the maximum outcomes from rearing them, to cultivate crops, and to cope with the dry seasons. This way, a household can be independent and continue the programme by themselves, thus ensuring its sustainability.
The Fundamental Principles of the International Red Cross and Red Crescent Movement

**Humanity** The International Red Cross and Red Crescent Movement, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavours, in its international and national capacity, to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, cooperation and lasting peace amongst all peoples.

**Impartiality** It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavours to relieve the suffering of individuals, being guided solely by their needs, and to give priority to the most urgent cases of distress.

**Neutrality** In order to enjoy the confidence of all, the Movement may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature.

**Independence** The Movement is independent. The National Societies, while auxiliaries in the humanitarian services of their governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with the principles of the Movement.

**Voluntary service** It is a voluntary relief movement not prompted in any manner by desire for gain.

**Unity** There can be only one Red Cross or Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

**Universality** The International Red Cross and Red Crescent Movement, in which all societies have equal status and share equal responsibilities and duties in helping each other, is worldwide.
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