

# THE ZAMBEZI

Volume 6 no 2

## Cross-border movement of people – defining moment for the Zambezi River Basin

by Clever Mafuta

The recently signed protocol on the Facilitation of Movement of Persons in the SADC region has much to offer the Zambezi River Basin where communities share assets, cultural values, traditional leadership, economic opportunities and languages.

The protocol, premised on the basis that the process of building the Southern African Development Community (SADC) is possible only when its citizens can enjoy movement across borders, was signed at the SADC Silver Jubilee Summit in Gaborone in August 2005.

The new SADC Executive Secretary, Tomaz Augusto Salomão, in an interview with *SADC Today*, cautioned that the movement of people needs to be put into context as it should correspond to stages of integration and the level of development of member states. "What we need to do is to be clear about our priorities, policies and strategies," he said.

The protocol is particularly significant for the Zambezi as this is the most shared river basin in southern Africa, encompassing part of the territory of eight of SADC's 12 mainland member states. The countries that share the 1.4 million sq km Zambezi basin are Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe.

Political boundaries drawn at the 1884/85 Berlin Conference restrict the movement of people, fragmenting societies which were historically bound through common ancestry, chieftaincy, culture and language.

Communities, particularly the Tonga people, were further separated by the construction of the Kariba dam more than 50 years ago, resulting in division of the Tonga communities living in Zimbabwe and Zambia.

Communication within the Tonga community was restricted, although the shared culture has been preserved, as well as traditional leadership style, music and dance.

Similarly, the Lwena ethnic group shares the same language and cultural values although living in both Angola and Zambia, while the ChiChewa-speaking people live in Malawi, Mozambique, Zambia and Zimbabwe.

The Lwena get their name from the Luena river, a tributary of the Zambezi. In the north-western district of Zambia they are also known as the Lovale.

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# EDITORIAL

As the most shared river basin in southern Africa, the Zambezi provides the medium around which most regional protocols can be tested. In particular, the envisaged free movement of people could evolve around the river as it passes through eight of the 14 countries in SADC.

With the free movement of people, access to the resource-rich basin is set to be enhanced, resulting in better prospects of meeting the region's targets under the Millennium Development Goals.

Not only will local-level poverty be alleviated through such initiatives as irrigation cooperatives but also through large-scale ones such as hydropower schemes, transfrontier conservation and tourism activities.

The previous issue of *The Zambezi* emphasized the importance of agreements, particularly the Zambezi Watercourse Commission agreement, in achieving regional cooperation and integration. This thread continues in this issue where the facilitation of movement of people across borders is seen as providing the impetus to bring into operation all the other regional protocols and agreements.

The protocol on facilitation of movement of people across borders, which was signed by half of the 14 SADC member states during the August SADC Silver Jubilee Summit held in Gaborone, Botswana, is critical to the processes of cooperation, networking and integration in southern Africa.

The free movement of people across national borders is crucial in promoting dialogue between nations and people, as well as enhancing participation and networking for the development of integrated natural resources management strategies.

Some ongoing activities that demonstrate regional integration initiatives in the Zambezi River Basin include the planned Four Corners project, which covers the border tips of Zambia, Zimbabwe, Botswana and Namibia, and the Zimbabwe Mozambique Zambia transfrontier conservation project.

Regional cooperation is also being demonstrated in the energy sector where efforts are being directed towards averting an anticipated energy shortfall by 2007. The basin has the potential to generate an additional 11,000 megawatts which can boost the region's energy supplies through the Southern Africa Power Pool.

Proposed hydropower initiatives in the basin include the M'panda Uncua, Ithezhi Tezhi, Batoka and the Kafue projects.

The efforts towards regional integration are rooted in the SADC Shared Watercourses Protocol, which was revised in 2000 and came into force in 2003. It stresses close cooperation for sustainable and coordinated management, protection and use of shared watercourses, and the advancement of the SADC agenda of regional integration and poverty alleviation.

In the Zambezi basin the Watercourses protocol is supported through the multilateral Zambezi Watercourse Commission Agreement. On the ground activities in support of the agreement are carried out through national steering committees. All these will be greatly enhanced by easier movement of people across borders.

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# Shared water resources critical to regional integration

by Clever Mafuta

**S**outhern Africa recognises the role that water plays in the process of regional integration, with efforts towards sustainable and integrated water management in the SADC region traceable to the establishment of the SADC Water Sector in 1996.

The realisation of the need for a regional coordination mechanism for water resources came about because of recurrent droughts, occasional floods, increasing demand for water, growing competition over water, worsening pollution and increasing awareness among the countries of the region of the importance of integrated water resources management.

The SADC region made its first move towards achieving integration of the regional use and management of water resources by agreeing on the Protocol on Shared Watercourse Systems in 1995. The protocol was revised in 2000. The revised Protocol on Shared Watercourses came into force in 2003.

The SADC Protocol on Shared Watercourse Systems is the first sector-specific legal instrument to be developed by SADC. It creates the overarching framework for the management of the 15 shared river basins in the region.

Through the revised Protocol on Shared Watercourses, the region has sought to maximise on the attributes of shared water management while minimising on the potential for competition or conflict over resource scarcity.

Management of water resources is a key challenge for southern Africa given that water is a decisive economic development input factor, including its role in the generation of electricity.

The bulk of southern Africa's energy supplies come from hydro-power, and with indications that the region will be short of electricity supplies by 2007 if no measures are put in place, integrated water resources management as promoted by the revised Protocol on Shared Watercourses becomes critical.

Both water and energy fall under the SADC Directorate of Infrastructure and Services, which also has responsibility for transport, communications and meteorology services.

Despite shortages in potable water supplies, the region's potential in generating hydropower is huge. For example, the Congo river has untapped potential for 40,000 megawatts, energy that is enough to power the whole of Africa with even surpluses to supply southern Europe.

The adoption by the region, in April 1997, of the UN Convention on the Law of the Non-navigational Uses of International Watercourses led to the revision of the 1995 protocol.

The main differences between the old and the revised protocols is that the latter places emphasis on watercourses as opposed to watercourse states, and calls for the establishment of river basin commissions, which have been established for the Zambezi, Limpopo, Okavango and Orange-Senqu river basins.

The SADC Protocol on Shared Watercourses is being implemented through the Regional Strategic Action Plan (RSAP) for integrated water resources management and development.

This decision to develop the RSAP represents a significant commitment towards meeting the challenge of providing adequate water service and supply in the region and protection of the environment. □

## Cross-border movement of people – defining moment for the Zambezi River Basin

continued from page 1

The Zambezi River Basin is abundant with shared natural resources and habitats, and is home to some of the region's most famous wildlife conservation areas, including the Kameia National Park and Mavinga Game Reserve in Angola, Caprivi Game Reserve in Namibia, Chobe Wildlife Conservation Area in Botswana, West Lunga and Kafue Parks in Zambia, Hwange National Park and Mana Pools Park in Zimbabwe, and Lake Malawi Park in Malawi.

The Protocol on the Facilitation of Movement of Persons in SADC should boost trade and regional tourism in the basin states.

### The objectives of the protocol are to facilitate:

- entry into member states without the need for a visa for a maximum period of 90 days per year for *bona fide* visits and in accordance with the laws of the member state;
- permanent and temporary residence in the territory of another member state; and
- working in the territory of another member state.

Already signed by half of the 14 member states of SADC, the protocol will come into force on ratification by two-thirds of the members.

The overall objective of the protocol is to develop policies that are aimed at the progressive elimination of obstacles to the movement of people in the SADC region. It will facilitate visa-free entry for a maximum of 90 days per year for *bona fide* visits and in accordance with the laws of the member state.

Through the protocol, member states agree to make travel documents readily available to their citizens. They agree to cooperate in harmonising travel whether by air, land or water and to increase and improve travel facilities especially between mutual borders.

Already there is free movement of wildlife in the basin. As such the protocol will further support Trans Boundary Natural Resources Management (TBNRM) initiatives in such areas as wildlife conservation

and water resources management. The protocol will make it easier to share knowledge and skills, as well as in harmonising conservation strategies.

TBNRM initiatives are increasingly gaining prominence as a holistic approach to environmental and natural resources management, and sustainable development. This is because ecosystems span across borders and workable solutions can only be attained with the involvement of all stakeholders.

The Zimbabwe Mozambique Zambia (Zimoza) transboundary initiative is one of the major TBNRM initiatives currently being implemented in the Zambezi River Basin. The initiative is located in Zambia's Luangwa district and the adjacent Zumbo district in Mozambique, as well as Zimbabwe's Guruve district on the other side of the river.

Another TBNRM initiative is the Four Corners project located around the Caprivi Strip, one of the few places in the world where four countries meet. These are Botswana, Namibia, Zambia, and Zimbabwe.

Besides natural assets, there are many shared infrastructural assets within the Zambezi basin. These include the historic Victoria Falls bridge, an important trade and economics link between the south (Botswana, South Africa and Zimbabwe) and the north (Zambia and the Democratic Republic of Congo). The bridge is also known for the world-famous bungee jumping.

The Protocol on the Facilitation of Movement of Persons in SADC complements the more than 30 other protocols, policies and multilateral agreements that the SADC region has adopted in its quarter century of existence. These include the Revised Protocol on Shared Watercourses and the Zambezi Watercourse Commission (ZamCom) agreement, which have direct relevance to the Zambezi River Basin.

While the protocol has more positives than negatives, the region must move with speed to harmonize its other policies and national laws. For example, down seasons for fishers need to coincide, and the free movement of the people must be well managed so as to combat cross-border crime. □



# Water is central to meeting the Millennium Development Goals

by Ronald Chawatama

**W**ater is key to life as it supports the three pillars of sustainable development, namely social, economic and environmental. Due to this critical role water is also central to meeting the eight Millennium Development Goals (MDGs).

The Zambezi River Basin's water resources influence all aspects of economic and social development so much that the development of the basin's water resources in an integrated manner could enhance energy and food security, improve access to safe water supply and sanitation for the majority of the region's population, generate employment in the tourism and manufacturing sectors, and improve water transport on rivers and lakes.

Given its strategic importance in sustainable development and in meeting MDGs, the availability of water in sufficient quantities and quality becomes critical.

Water availability in the basin and elsewhere is dwindling due to population growth, climate variability and change, economic growth, urbanization and pollution.

According to the book *Defining and Mainstreaming Environmental Sustainability in Water Resources Management in Southern Africa*, the water outlook of the Zambezi basin riparian states is not good, with scientific indications being that by 2025 Malawi could be water scarce as it lacks a mechanism to draw on the volume of water in the lake, while Mozambique, Tanzania and Zimbabwe will be water stressed. The situation in Botswana and Namibia is masked by small population figures and distance to major water sources.

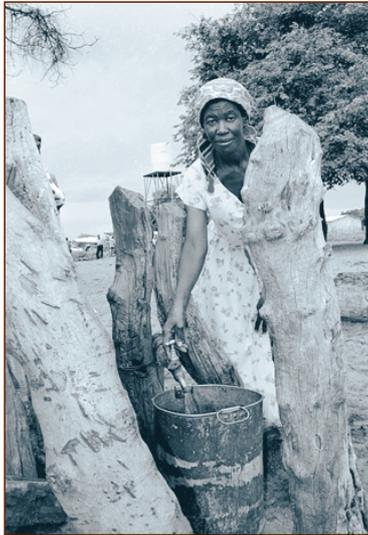
As such water resources management is increasingly becoming a challenge. This challenge is worsened by the fact that improved access, supply and sanitation services to domestic and industrial sectors are catalytic entry points for meeting the majority of MDGs.

Addressing over 1,400 water experts during the 15th World Water symposium held in South Africa, Buyelwa Sonjica, South Africa's Minister of Water Affairs and Forestry highlighted how lack of sufficient infrastructure affects management of water.

"Large dams to store water, pipes, waterworks, wastewater treatment plants and other types of infrastructure are necessary for safe water," she noted.

Despite the challenges, countries in the Zambezi River Basin have made efforts to improve access to water and adequate sanitation. Key to these efforts is the concept of Integrated Water Resources Management (IWRM), which the countries are implementing through various national water strategies and policies. At the regional level the revised SADC Protocol on Shared Watercourses supports IWRM.

Botswana is firmly on course in meeting part of MDG 7 of ensuring environmental sustainability through efforts to facilitate universal access to safe water. The proportion of the country's population with sustainable access to safe drinking water increased from 77 percent in 1996 to almost 98 percent in 2003.



Water resources management increasingly becoming a challenge.

Access to safe drinking water in Zambia increased marginally from 48 percent in 1992 to 51 percent in 2002. The country has an enviable target of achieving 74 percent access to safe drinking water by 2015.

The MDGs are committed to eradicating poverty and hunger, achieving universal primary education, promoting gender equality and women's empowerment, reducing child mortality, improving maternal health, combating major diseases, improving environmental sustainability, and facilitating global partnerships for development.

As a main factor of production in agriculture, industry and economic activities that provide means of livelihoods for people, water will contribute to halving the number of people living in poverty, as well as in reducing the number of people living in hunger through boosting food production and income generation. □

## Conference discusses IWRM issues in the Zambezi River Basin

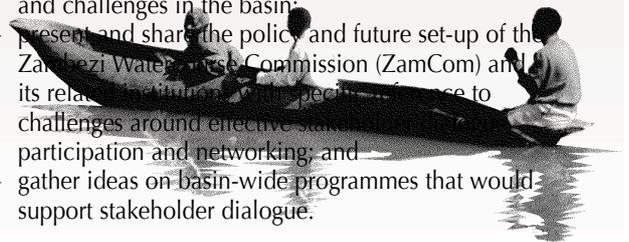
**T**he Zambezi Action Plan Project 6 Phase II (ZACPRO 6.2), a SADC initiative, will host a conference of stakeholders to discuss the management of water resources in the Zambezi river basin.

The "Stakeholder Dialogue, Participation and Networking Initiative for the Development of an Integrated Water Resources Management Strategy for the Zambezi River Basin" seeks to champion the cause for an effective strategy that will encompass a broad range of perspectives.

The conference is organized in collaboration with the World Conservation Union's Regional Office for Southern Africa (IUCN ROSA) and the Musokotwane Environment Resource Centre for Southern Africa (IMERCSA) of the Southern African Research and Documentation Centre (SARDC).

The main objectives of the conference in Gaborone in December are to:

- ♦ consult with stakeholders and share information on various initiatives in the Zambezi River Basin;
- ♦ identify and discuss IWRM and other related issues and challenges in the basin;
- ♦ present and share the policy and future set-up of the Zambezi Watercourse Commission (ZamCom) and its related institutions, and specifically discuss the challenges around effective stakeholder participation and networking; and
- ♦ gather ideas on basin-wide programmes that would support stakeholder dialogue.



## Contribution of water towards meeting MDGs

Table 1

MDGs and relevant targets	Contribution of domestic water supply and sanitation	Contribution of sound water resources management and development
<b>Poverty</b> To halve the proportion of the world's people whose income is less than \$1/day	Household livelihood security rests on the health of people, with the sick being less productive; illness caused by unsafe drinking water and inadequate sanitation incurring health costs and claiming household's income; and more time being spent collecting water instead of income generating activities.	Water is a factor of production in agriculture, industry and other economic activities that provide livelihoods. Investment in water infrastructure can be a catalyst for local/regional development, while a reduction in ecosystem degradation and vulnerability to water related disasters make livelihood systems more secure.
<b>Hunger</b> To halve the proportion of the world's people who suffer from hunger	Healthy people are better able to absorb the nutrients in food than those suffering from water and sanitation related diseases, particularly worms, which rob their hosts of calories.	Water is a direct input for agriculture, and the higher the output the cheaper the food to reduce hunger.
<b>Primary education</b> To ensure that children everywhere complete a full course of primary schooling.	Improved water and sanitation services relieve school children from water fetching duties, allowing them to attend school. Reduced water-related illnesses improves school attendance.	Improved water management reduces the incidences of catastrophic events like floods that interrupt educational attainment.
<b>Gender equality</b> To ensure that boys and girls have equal access to primary and secondary education.	Water and sanitation facilities closer to home give women and girls more time to study and attend school.	Community-based organisations for water management can improve social status of girls and women by giving them leadership and networking opportunities and building solidarity among them.
<b>Child mortality</b> To reduce by two-thirds the death rate for children under five.	Improved sanitation, safe drinking water sources and greater quantities of domestic water for washing reduce infant and child morbidity and mortality. Sanitation and safe water in health care facilities reduce neonatal deaths.	Improved nutrition and food security reduces susceptibility to diseases. Well-managed water resources help poor people make a decent living and reduce their vulnerability to shocks, which in turn gives them more secure livelihoods and opportunity to care for their children. Malaria is a leading cause of death among children, and better water management reduces mosquito habitats.
<b>Maternal mortality</b> To reduce by three-fourths the rate of maternal mortality.	Accessible sources of water reduce labour burdens and health problems resulting from water portage, reducing maternal mortality risks. Improved health and nutrition reduce susceptibility to anaemia and other conditions that affect maternal mortality.	Improved nutrition and food security reduces susceptibility to diseases that can complicate pregnancy. Malaria is particularly dangerous to pregnant women, and better water management reduces mosquito habitats.
<b>Major disease</b> To halt and begin to reverse the spread of HIV, malaria, other major diseases.	Safe drinking water and basic sanitation help prevent water related diseases, including diarrhoeal diseases, schistosomiasis, filariasis and trachoma. Improved water supply reduces diarrhoea morbidity by 21%, improved sanitation reduces diarrhoea by 37.5%, while hand washing can reduce the number of diarrhoeal cases by up to 35%.	Improved water (and wastewater) management in human settlements reduces transmission links of mosquito-borne illness like malaria and dengue fever. Improved health and nutrition reduces susceptibility to severity of HIV/AIDS and other major disease.
<b>Environmental sustainability</b> To stop the unsustainable exploitation of natural resources	Adequate treatment and disposal of excreta and wastewater contribute to less pressure on freshwater resources.	Improved water management, including pollution control and water conservation, is a key factor in maintaining ecosystem integrity. Integrated management within river basins allows for approaches that preserve ecosystem health.
<b>Slum dwellers</b> To improve the lives of 100 million slum dwellers.	Inadequate access to safe water and inadequate access to sanitation and other infrastructure are two of the main defining characteristics of a slum.	Slum settlements are often built on sites vulnerable to water-related disasters.

Source: UN Millennium Project Task Force on Water and Sanitation (2005) Final Report, Abridged Edition, *Health, Dignity and Development: What Will it Take? Achieving the Millennium Development Goals*, United Nations Millennium Project, New York



# The Zambezi offers hope in averting energy shortage in southern Africa

by Eglina Tauya

**S**outhern Africa could fail to meet its energy demands by 2007 if no significant investment in energy generation is made.

The dwindling energy supply is due to high demand which has been growing by three percent per year over the past decade.

Access to electricity is an essential component in reducing poverty and improving livelihoods, core issues in many developing countries in line with the Millennium Development Goals (MDGs).

In response to the anticipated energy shortages, major investments in the energy sector are on the cards. These investments include those supported by the New Partnership for Africa's Development (NEPAD) such as the proposed M'panda Uncua hydropower station to be built on the Zambezi river 60 km downstream of Cahora Bassa dam in Mozambique.

With growing demand for electricity, Mozambique believes that the M'panda Uncua project will be essential for the country to meet its needs and export to neighbouring countries. Mozambique currently exports electricity to South Africa and Zimbabwe.

The M'panda Uncua hydropower project is expected to generate 2,000 megawatts (MW), and construction is set to begin for completion by 2010. The M'panda Uncua project follows the rehabilitation of the electricity interconnection from the Cahora Bassa dam with South Africa, where over 2,000 pylons that were damaged during the civil war had to be replaced.

The Cahora Bassa hydropower facility is 82 percent owned by Portugal although transfer to Mozambican ownership has recently been agreed.

In addition to the M'panda Uncua, the Zambezi basin has the potential to generate an additional 11,000 MW at other sites. These include the Itezhi-Tezhi and the lower Kafue in Zambia, and the Batoka Gorge.

Faced with the challenge of a looming power shortage in about two years, more than 300 delegates from southern Africa, among them energy ministers, hydrologists and investors, met in Windhoek in September 2005 under the banner SADC Regional Electricity Investment Conference.

The conference noted that the survival of the energy sector greatly depends on public-private sector partnerships, a sentiment supported by Namibia's Prime Minister,

Nahas Angula, who, in his official opening statement, stressed the need to support initiatives geared at fostering regional integration such as the Western Power Corridor Project (Westcor).

Westcor is a SADC project conceived through the combined initiative of the SADC Secretariat and the power utilities of Angola, Botswana, Democratic Republic of Congo (DRC), Namibia and South Africa. The project's aim is to harness the large water resources of the Congo river at Inga.

The Westcor power project will supply electricity to the participating countries and other SADC member states through the Southern African Power Pool (SAPP).

The Grand Inga project, one of the major Westcor projects, has the potential to generate 40,000 MW, which is twice the generation potential of the famous Three Gorges Dam in China. The project will enable the region to contribute to the electricity needs of the rest of Africa, with a surplus for some European markets.

The Westcor project is one of the key projects under NEPAD, and is estimated to cost about US\$7,000 million. The participating utility companies which include Botswana Power Corporation (BPC), Empresa Nacional de Electricidade of Angola, NamPower from Namibia, Eskom of South Africa, and DRC's Societe Nationale d'Electricite (SNEL) have agreed to contribute seed funds towards the operations of the Westcor office.

In a speech read on his behalf by the acting Chief Director Margaret Nyirenda at the signing of the shareholders agreement in Gaborone on 7 September, the SADC Executive Secretary, Dr Tomaz Augusto Salomão, said the initial contribution is clear demonstration of commitment to the project and therefore its sustainability is assured. The signing will set in motion the creation of a joint venture company.

It is the desire of SADC that in the long run Westcor membership should be opened up to include other members of the SAPP, including the utility companies of the remaining Zambezi River Basin riparian states.

These are Malawi's Electricity Supply Commission, Electricidade de Moçambique, Tanzania Electric Supply Company, Zambia Electricity Supply Corporation and Zimbabwe Electricity Supply Authority. □

## Mozambique reclaims Cahora Bassa

**M**ozambique has concluded an agreement with the former colonial power, Portugal, to reclaim the giant Cahora Bassa dam and guarantee economic independence as well as control of one of the major sources of electricity in southern Africa.

Mozambique will, by the end of this year, be in charge of a project located on its soil but on which it had no control for the past 30 years due to contractual obligations with Portugal.

The new arrangement gives Mozambique 85 percent of the Cahora Bassa Hydroelectric (HCB) project while Portugal will retain only 15 percent. The HCB has a capacity to produce 2,000 megawatts of electricity and is one of the main suppliers of power to the Southern African Power Pool.

The development is a victory against the last symbol of Portuguese colonial domination in the country. Prime Minister Luisa Diogo said "it is the beginning of a new revolution and the Mozambicans should make sure that the amount agreed is paid in time."

Until now, Portugal owned 82 percent of the HCB project. Mozambique will need to pay US\$950 million to the Portuguese government as compensation for the post civil-war reconstruction and maintenance of the dam.

The transfer of ownership of the HCB project and its anticipated expansion should come as good news for the SADC energy sector which has announced fears that the region could run out of surplus electricity generating capacity by 2007 unless major new projects are undertaken.

South Africa and Zimbabwe import electricity from HCB. The demand for electricity is high in Mozambique, with some vital projects put on hold due to lack of power. This is the case with the second expansion of Mozal, a world-class aluminium smelter located in the Maputo Development Corridor linking Mozambique, South Africa and Swaziland. □



## Watering school fees in Salima, Malawi

by Leonissah Munjoma

For every parent, one point of discussion when they meet fellow parents is that of school fees for their children. For those in the low income bracket, particularly living in the rural areas, the major worry is how to afford the fees to ensure their children's education.

For Martha Steven, in her mid-30s and mother of three, the worry over school fees is fast fading into her past, thanks to the Ngolowindo Agricultural Irrigation Cooperative Society situated about 100 km east of Malawi's capital Lilongwe near Salima along Lake Malawi.

Using water from the lake through one of the simplest irrigation techniques, the cooperative society is an example of what should be done if the goal of poverty eradication by the year 2015 is to be realized in the Zambezi River Basin and beyond.

The 140-member cooperative has transformed people's lives through efficient use of water from Lake Malawi. Lake Malawi, Africa's third largest freshwater lake after lakes Victoria and Tanganyika is found in the Zambezi River Basin and covers 28,000 sq km.

The Ngolowindo Agricultural Irrigation Cooperative Society is one of many community level initiatives in the Zambezi River Basin as the concept of Integrated Water Resources Management (IWRM) continues to gain momentum.

"The cooperative has worked well for me and it has transformed my life. I used to worry about school fees for my children, about food, clothes for the family and I used to labour on my own in the fields and had a pole and mud house. This is all in the past now," she said with a sense of pride at her achievements.

Her colleague, Felesita Malangiza, in her mid 40s and mother of five, agreed with her. She has been an active member of the society for more than 10 years having joined in 1992.

"It has not been easy. It has been a long and tough road, but the rewards are worth it," she said adding, "With my husband working in the city, I am able to support the family here."

Steven, vice-chairperson of the society's marketing committee, said it all started after discussions between Malawi government officials from the water department, the local authorities, traditional leaders and the community members.

"We started with people clearing the land and those that worked hard became members. You know how it is, some want it easy and others are prepared to toil to the end," said Malangiza, also a member of the marketing committee.

Each member has been allocated a piece of the 17-hectare land. Although there are more women members, there are men too.

The European Union (EU) has been funding the cooperative. This funding is due to end in December 2005 by which time the project is set to be self-sustaining.

After harvesting, the cooperative members take the crop to the shade where it is weighed and priced. They are issued with a voucher and are paid when the crop has been sold. This way of marketing has minimized the conflicts the members used to have before they established the cooperative.

"We have improved our marketing techniques to avoid stockpiling. We use a staggering approach to growing crops. People are limited in terms of the size of field and amount of crop they can grow to allow everyone to be able to sell their crop. We have also learnt to grade the vegetables," says Steven.

It is not all rosy in the cooperative as the economic situation is making more and more people establish income-generating projects. Steven pointed out that their major challenge is to secure large markets, particularly big supermarket chains and training institutions.

They have won tenders with big supermarket groups and training institutions but the hurdle has been that sometimes they are asked to supply for a whole year when they are only able to do seasonal supplies.

A group of visitors from the Zambezi river basin states who were in Sango Bay to attend the Zambezi Action Plan Project 6, Phase II (ZACPRO 6.2)'s Project Steering Committee (PSC) meeting in mid-October, could not help commend the cooperative.

"This is impressive. They are organized and they use the simplest method of irrigation and it works," said Mike Tumbare, the Zambezi River Authority (ZRA)'s Chief Executive.

His organization will soon facilitate an exchange visit to the cooperative for people from Zambia's southern province "so they can come and see and learn with the hope of having such a scheme".

Botswana's acting deputy director in the Department of Water Affairs, Othusitse Katai, echoed Tumbare's sentiments saying the irrigation system used was simple and could easily be replicated elsewhere. He noted this could, however, be limited to a certain size of land. □



Low-cost irrigation technologies will accelerate poverty reduction efforts through income generation.

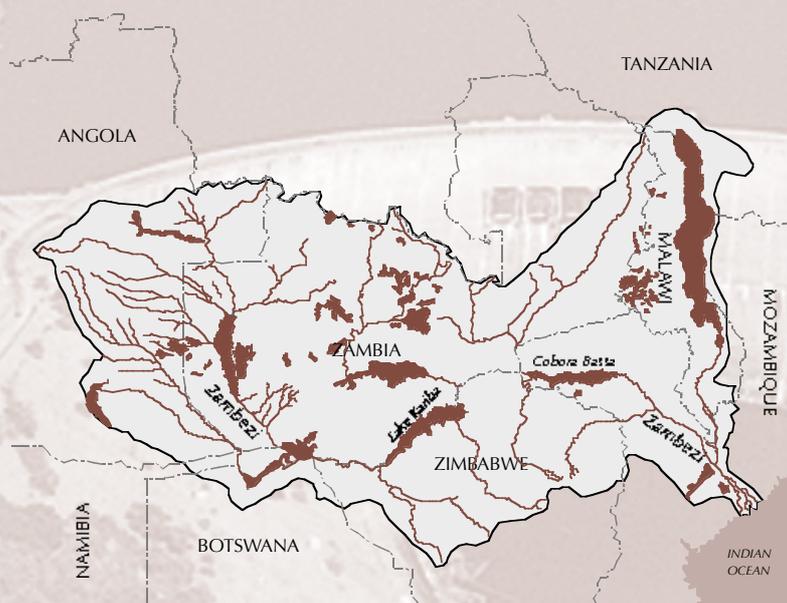
# THE ZAMBEZI AT A GLANCE

## The Zambezi River

- rises on the Central African Plateau in the Kalene Hills in northwestern Zambia and flows through eight countries to its delta in Mozambique and the Indian Ocean.
- drains an area of almost 1.4 million sq km, stretching across Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania, Zambia and Zimbabwe.
- supports the Victoria Falls, popularly identified as one of the seven natural wonders of the world, as well as Kariba and Cahora Bassa hydroelectric dams and their lakes.

## The Zambezi Basin

- ◆ is the most shared in southern Africa and third largest in Africa after the Congo and the Nile.
- ◆ covers about 25 percent of the total geographic area of the eight riparian countries estimated at 5.6 million sq km.
- ◆ is home to almost 40 million of SADC's estimated population of more than 200 million people.
- ◆ hosts urban areas such as Luena in Angola, Kasane in Botswana, Tete in Mozambique, Katima Mulilo in Namibia and Mbeya in Tanzania, almost all urban centres in Zambia including the capital city of Lusaka, all urban centres in Malawi and most in Zimbabwe, including Harare.
- ◆ contains Lake Malawi/Nyasa/Niassa covering 28,000 kq km, Africa's third largest freshwater lake after Lakes Victoria and Tanganyika and third deepest in the world.



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