CHANGING ENVIRONMENT
in the
Zambezi River Basin

by Admire Ndlovu

CLIMATE AND human pressure on resources are significantly changing the environment in the Zambezi river basin, as illustrated in a publication to be launched in 2013, the Zambezi River Basin Atlas of the Changing Environment.

The Atlas uses satellite images, high resolution photographs, illustrative text and graphics to present various issues in the Zambezi basin, which encompasses part of eight countries — Angola, Botswana, Malawi, Mozambique, Namibia, the United Republic of Tanzania, Zambia and Zimbabwe.

The Atlas presents the wide range of water resources and other natural resources in the Zambezi basin, and their significance, as well as socio-economic and cultural aspects.

However, the satellite images show that the basin has undergone major environmental changes in the past 20 years. These include land degradation, loss of forests, expansion of urban and mining areas as well as the spread of alien plant species.

Zambezi River Basin Atlas of the Changing Environment, the first of its kind in the basin and southern Africa, is a collaborative initiative with the objective of providing scientific evidence about changes that are taking place in the natural resources and the environment.

The atlas was produced for the Southern African Development Community (SADC) Water Division, the Interim Secretariat of the Zambezi Watercourse Commission (ZAMCOM), and Zambezi River Basin stakeholders, by the Southern African Research and Documentation Centre (SARDC) through its environment institute, the I. Musokotwane Environment Resource Centre for Southern Africa (IMERCSA) and GRID-Arendal, both collaborating centres of the United Nations Environment Programme (UNEP).

**EDITORIAL**

Climate change, while serious and urgent, brings with it opportunities for Zambezi Basin states to advance efforts towards sustainable development.

Coupled with climate variability, climate change is one of the most complex challenges in the basin, much as in the rest of southern Africa.

The changes have been observed from season to season throughout the basin and the trend has become more pronounced from the 1980s with temperatures having risen by at least 0.5 degrees in southern Africa, according to the Southern Africa Environment Outlook report of 2008.

Projected changes present more than just an environmental concern but serious social and economic implications.

The negative impacts include increased water scarcity, biodiversity loss, land degradation, declining crop yields, outbreak of climate change related diseases such as malaria, and increased frequency and severity of floods and droughts.

Though the amount of rainfall is expected to decrease by between 10 and 15 per cent in the basin, according to the Fourth Assessment Report of Intergovernmental Panel on Climate Change, when the rains do fall, they will be more intense, triggering more extreme floods, as has occurred in many parts of the basin in the current season.

Communities in the basin have long history of adapting and reducing their vulnerability to the impacts of climate variability such as floods and droughts using indigenous knowledge systems.

Some communities in the basin are stepping up efforts to revive these systems. The strategies range from reverting back to drought-resistant small grains and short variety seeds, flood control by building ridges, early warning systems using traditional methods, and rainwater harvesting, especially in flood and drought prone areas.

Incorporating indigenous knowledge systems into the climate change policies can lead to the development of effective adaptation strategies that are cost-effective, participatory and sustainable.

For early warning systems, elderly farmers predict seasonal rainfall by observing natural events and behaviour of certain plants and animals. If there is an abundance of fruits available to the onset of the rainy season, for instance, people would know that the season is likely to experience low rainfall patterns. The community would then gather as many fruits as possible and preserve them for future use during that time when it will be dry.

When fruits ripen earlier than the usual, this would mean that the season will experience low rainfall patterns. People would then start preparing large fields and different types of crops which require plenty of rain.

The enhancement of such indigenous capacity is key to the empowerment of local communities and their effective participation.

Indigenous strategies may need to be integrated with the conventional strategies as the rate of change has increased.

Integrated Water Resources Management (IWRM) is one way of responding to climate change and climate variability, incorporating both indigenous and conventional strategies. An IWRM strategy has been developed for the Zambezi River Basin. Implementation of this strategy to reduce climate change and variability impacts is crucial as the Zambezi Basin presents the best of what southern Africa has in terms of natural capital.

The nature of the basin gives the basin’s economic activities such as agriculture, forestry, mining and tourism. There is therefore great need to sustain and protect them to meet the needs of current and future generations, as well as for ensuring the replenishment of the natural environment.
Progress on ZAMCOM Agreement

There has been notable progress in the operationalisation of the Zambezi Watercourse Commission (ZAMCOM) Agreement signed on 13 July 2004 at Kasane in Botswana.

Following ratification by the required minimum two-thirds majority, the ZAMCOM agreement came into force on 19 June 2011 and was officially pronounced in September 2011.

As stipulated in the ZAMCOM agreement and in line with the revised SADC Protocol on Shared Watercourses of 2000, ZAMCOM is a river basin organisation set up by the countries that share the river basin to serve as a water management organisation for the entire geographical area.

These countries are Angola, Botswana, Malawi, Mozambique, Namibia, United Republic of Tanzania, Zambia and Zimbabwe. ZAMCOM’s main goal is to assist the riparian states to achieve regional cooperation and integration through sharing treasured benefits from the water resources cooperative development and management in the Zambezi River Basin.

This is in recognition of the contribution that such cooperation can make towards the peace and prosperity of the basin and southern Africa as a whole. ZAMCOM is governed by three main organs. These are the Council of Ministers, which is the decision-making organ; the ZAMCOM Technical Committee (ZAMTEC), which is a technical advisory body; and the ZAMCOM Secretariat (ZAMSEC), responsible for overall management, supported by a Project Implementation Unit on one end, and Working Groups on the other.

The ZAMCOM process is currently being managed by the Interim ZAMCOM Secretariat (IZS), hosted by the government of Botswana in Gaborone.

A historic meeting that saw the formalisation of the ZAMTEC was held on 1 November 2012 at Gaborone in Botswana.

Speaking at the meeting, the Executive Secretary for the Interim ZAMCOM Secretariat, Michael Mutale, said, “It is historic in that it has taken decades to reach this milestone. It is not necessarily for the reason that there was no will to get here, but because a lot of inherent factors had to be taken into consideration during the Zambezi River basin process.

“The Zambezi River basin is shared by many countries, eight of them, and any efforts to bring about cooperation on a shared resource have to take into account the many and varying interests of all these countries. For them to have now formalised one of the three requisite ZAMCOM organs is momentous.”

Formalisation of ZAMTEC means that organs of ZAMCOM are being gradually put in place, while the processes of formalising the Council of Ministers and establishing the ZAMSEC are now at advanced stages.

The bidding process for hosting the permanent ZAMCOM Secretariat has started and the Council of Ministers will decide on the permanent location of the ZAMCOM Headquarters within the course of the year 2013.

In all these processes a key component to ZAMCOM’s success is stakeholder consultations and participation in line with the spirit of inclusiveness as stipulated in the Treaty of the Southern African Development Community (SADC).

Running parallel to the process of regional cooperation has been in-country consultations to establish National Stakeholders Coordination Committees (NASCs) in each of the eight Riparian States.

The NASCs are expected to serve as a platform through which national consensus can be reached on water resources development and management issues.

ZAMCOM attaches special attention to ensure active stakeholder participation in all its deeds thereby promoting the spirit of ownership and commitment among the stakeholders.

Already, four of the eight countries in the basin have succeeded in launching their NASCs. These countries are Malawi, Mozambique, Tanzania and Zimbabwe.

The other four are at advanced stages of formalising the NASCs through launches.

Some of the expected responsibilities of the NASCs include the provision of national input on the ZAMCOM decision-making processes and serving as avenues for disseminating the ideas, activities and outputs of the ZAMCOM Secretariat to stakeholder institutions and interest groups in the respective countries.

The NASCs are expected to serve as vital links between the ZAMCOM Secretariat, be it the Interim or Permanent, and the national thinking towards basin cooperation and coordination.

The NASCs are expected to assume the role of being stakeholder outreach medium at country level and to provide representation at regional ZAMCOM forums, including the Basin-wide Stakeholders Coordination Committee (BASC) that is to be established after the majority of the eight States have NASCs in place.

The Interim ZAMCOM Secretariat has also facilitated the establishment of the Zambezi International Cooperating Partners (ZICP) Partnership.

The partnership is a joint effort between the ZAMCOM Secretariat, which provides leadership, and the Lead International Cooperating Partner (ICP) which acts on behalf of ICPS (as first among equals) as a link with other ICPS involved in supporting the management of the Zambezi River Basin.

The primary role of the partnership is to enhance coordination, thereby reducing transaction costs by recipients and ICPS, and improving quality and coherence of dialogue and support on ZAMCOM activities.
ENVIRONMENT

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The Zambezi River Basin Atlas of the Changing Environment identifies climate change and population growth as major drivers of environmental change.

According to the Atlas, the population of the basin in 1998 was 31.7 million compared to an estimated 40 million in 2008, with 7.5 million people living in urban centres.

Most countries in the basin are urbanizing rapidly, putting pressure on finite resources.

The Atlas illustrates the deforestation of large areas surrounding Lilongwe in Malawi, among others, due to the high demand for firewood and land for farming by the growing population.

The Atlas shows mining as a major economic activity in the basin and satellite images reveal striking land-use changes as a result of mining activities, notably in Zambia.

The revival of copper mining at Kanshanshi and Lumwana mines in Solwezi in north-western Zambia has led to a population influx, resulting in the rapid but haphazard expansion of the town. As a result, surrounding forested areas have been cleared for firewood and peri-urban farming.

Sub-basins such as the Luangwa River, Lake Kariba, and the Kafue and Kabompo rivers have high concentrations of mining operations, contributing to water pollution in the Zambezi river. In addition, highly urbanized sub-basins such as the Kafue and Manyame are discharging waste into the Zambezi river system.

The Atlas shows that industrial activities that generate significant amounts of waste are of concern. About 1,400 tonnes of waste are produced daily in the Zambian capital, Lusaka, with only 10 percent collected by the municipality.

The Atlas shows that Zimbabwe, Zambia and Malawi together have 86 percent of the estimated 5.2 million hectares of land area that is cultivated annually in the basin and that the use of fertilizers and agrochemicals are contributing to the growth of harmful aquatic plants in water bodies.

An unusual phenomenon is seen on the Savute River in Botswana, which was uncharacteristically dry for long periods but is now flowing, while Lake Liambezi in the Caprivi region of Namibia, which almost disappeared between 1985 and 2000, has also begun filling up.

Although water hyacinth growth is a problem throughout the basin, areas that are particularly affected are the Kafue Flats in Zambia, Lower Shire in Malawi, Lake Kariba between Zambia and Zimbabwe, and Lake Chivero in Zimbabwe where the Atlas provides satellite imagery of a 25-year battle against the invasive weed.

Despite the abundance of wildlife resources in the basin, the Atlas shows that there are pressures that are threatening the existence of animal species.

Species that have become extinct in the basin in recent years include the blue wildebeest in Malawi, the Tsetsebe in Mozambique, and the Kob in Tanzania.

The Atlas also highlights several transboundary initiatives in various sectors that include those for wildlife, transport, water, and energy.

For example, the basin contains the second deepest lake in Africa (third deepest in the world), which has different names in Malawi, Mozambique and Tanzania — Lake Malawi/ Niassa/Nyasa/ — and two huge artificial lakes created by the construction of major hydroelectric dams at Cahora Bassa in Mozambique and Kariba, managed by Zambia and Zimbabwe. These two dams provide the bulk of the basin’s hydropower, together with the Kafue Gorge dam in Zambia.

Six vast Trans Frontier Conservation Areas (TFCA) have been established in various parts of the basin (see pg 6) to coordinate management of wildlife and other resources, including the Kavango-Zambezi (KAZA) TFCA that covers 287,000 square kilometres over five countries (Angola, Botswana, Namibia, Zimbabwe and Zambia) and is the largest TFCA in the world.

The Atlas concludes with a chapter outlining the various institutional arrangements and policy frameworks put in place to address the challenges in the Zambezi River basin.

These include the revised SADC Protocol on Shared Watercourses; the Regional Strategic Action Plan on Integrated Water Resources Development and Management 2011-2015 (RSAP III); the SADC Strategy for the Water Sector on Climate Change Adaptation; the Zambezi Watercourse Commission Agreement; and, the ZAMCOM Integrated Water Management Strategy.
Is the Zambezi basin prepared for increased flooding?

by Egline Tauya and Danai Matowanyika

ZAMBEZI RIVER Basin states have strengthened capacity to deal with floods, and this is beginning to show results through improved planning and greater internal cooperation during the 2012/2013 flooding season. However this is only the beginning and the efforts to prepare and mitigate the impact of floods in the basin still need to be strengthened.

Flooding has always been present in parts of the basin and has been incorporated into local culture and action through the use of indigenous knowledge systems for longer than written records have been kept. The scale of flooding is expanding beyond previous experience due to climate change and increased human impact on the natural support systems in the basin.

Flooding has now become an annual event in parts of the Zambezi basin where it previously occurred only occasionally or not at all. This is causing the loss of lives of people and animals, crops and property worth millions of dollars, as well as outbreaks and transmission of disease.

Flood-prone areas that are mainly affected include Zambezi province in Mozambique, the Lower Shire zone in Malawi, Caprivi Strip in Namibia, Kazungula and Kafue District in Zambia, and Muzarabani district in Zimbabwe.

The Mozambique News Agency (AIM) reported in March 2013 that by February 2013 the total death toll in Mozambique caused by flooding during the rainy season had passed 100 and across the country some 210,000 people had been directly affected by the storms and floods with approximately 150,000 people still living in temporary accommodation centres.

As of 18 February at least six villages in Nante, in Maganja da Costa district, and Zambezia province were isolated by flooding caused by a breach in a dike in a local irrigation scheme.

In Caprivi, the Namibia Hydrological Services reported a rise in the level of the Zambezi River, which reached the highest level since 1980. Since mid December 2012, Malawi has been receiving heavy rains and storms in many parts of the country.

This has led to floods, which displaced over 33,000 people by mid-February 2013, leaving many without shelter or clothing, and at least four deaths were recorded in the southern parts of Malawi, according to the Department of Disaster Management Affairs.

More than 20 schools were disrupted, affecting thousands of children, and destruction of infrastructure, including roads and houses. The most affected districts are Mangochi, Phalombe, Nsanje and Zomba.

Although the rainfall this season has been described as not extreme in the area, 18 households had to be moved to upper ground in the Caprivi region.

In Zambia, the situation has not been intense compared to other parts of the basin such as Mozambique and Malawi. The Disaster Management and Mitigation Unit (DMMU) reported that four districts (Kalabo, Mazabuka, Chikankanta, and Kafue) have experienced floods as a result of heavy rainfall but with little damage.

The heavy rainfall has caused water levels in the upper and middle Zambezi basin to rise earlier than usual. Cases are being managed locally by the DMMU.

With regard to Zimbabwe, heavy downpours throughout the rainy season have destroyed houses and schools in some outlying areas, as well as causing major damage to infrastructure with roads and bridges being washed away in various parts of the Zambezi basin, although much more damage was felt outside the basin in the Limpopo area.

The Zimbabwe Republic Police reported that at least 86 people have drowned throughout the country during the 2012/2013 rainy season, although this figure includes areas outside the basin.

Disaster management strategies are being employed in the basin to reduce the impact of floods, and relevant government structures are working together with disaster relief agencies. Most Basin States have established disaster management offices with disaster management funds created.

In Malawi, for example, the Catholic Development Committee is working with village-based communities spearheading a preventive and response system to floods.

The alert system includes use of traditional knowledge systems and raising awareness through civic education. For example, the appearance of large populations of ants indicates occurrence of floods in a village.

Mozambique has learned from previous experiences and has been much better prepared this season with the government allocating US$4 million for relief operations, according to the AIM report. This includes the provision of food and emergency kits to victims, repairing damaged infrastructure and preventing outbreaks of disease, as well as partnering with various humanitarian organizations on the ground.

Kuomboka

The Kuomboka is an annual traditional ceremony celebrated at end of March or beginning of April by the Lozi people of the western province of Zambia. The ceremony commemorates the seasonal movement of the Paramount Chief, the Litunga, from the flood plains to higher land hence the name Kuomboka which means “getting out of water”. The dates for 2013 are between 30 March and 11 April.
Zambezi basin states to benefit from UNWTO assembly

by Neto Nengomasha

FOR THE first time, the Zambezi basin is hosting a major global tourism event, regarded as a historical milestone not only to the Zambezi Basin States but to the rest of southern Africa.

The United Nations World Tourism Organisation (UNWTO) 20th General Assembly scheduled for 24 - 29 August this year will be hosted jointly by Zambia and Zimbabwe at Victoria Falls/Mosia Tunya.

The general assembly is held after every two years, rotating among member states, and this is the first time it has been held in southern Africa.

According to Southern Africa Today October 2012, more than 2,000 delegates are expected to attend the assembly from 180 member countries.

Hosting of the summit will raise the profile of the Zambezi River Basin and all basin states, and has potential to spur economic growth and regional cooperation in southern Africa.

Foreign currency inflow is expected to improve as a result of increased tourist arrivals and through effective marketing of the region’s rich cultural diversity and its unique cultural products.

The challenge is to use this event to promote tourism arrivals on a sustainable basis, not only for this occasion.

Tourism officials have cautioned against expecting quick windfalls but to lay a strong foundation to compete successfully in the global tourism market, through offering heritage and other specialist activities to tourists who are attracted to visit Victoria Falls, so they can have a more holistic African experience.

Delegates will have the chance to explore other tourist attractions such as the Kavango-Zambezi Trans Frontier Conservation Areas where large elephant populations roam across the five countries.

Some areas likely to be visited due to their proximity to the conference venues are Kasane in Botswana and the Caprivi region in Namibia.

Kasane is home to the magnificent Kasane Hot Springs and tourists can also enjoy bird viewing while surrounded by beautiful and tranquil scenery.

The Caprivi region in Namibia with its pristine woodland, riverine floodplain and abundant local and migrant wildlife is a special place to visit.

Zimbabwe and Zambia stand to benefit from infrastructure development and improvement taking place in preparation for the major event.

To date, major construction and refurbishment of a convention centre and ancillary structures for a tourism theme park, including hotels, lodges, a casino, museums, a shopping mall and airports such as Victoria Falls Airport and Joshua Mqabuko Nkombo Airport in Bulawayo, Zimbabwe are under way.

In Livingstone, a modern market in the town centre and an international bus terminus at Villa Grounds are being constructed, while 40 kilometres of selected urban roads in Livingstone area are being rehabilitated.

The Minister of Tourism and Hospitality in Zimbabwe, Walter Mzembi said the two countries were working well together in making the arrangements with “a smooth flow of operations in the planning of hosting the conference.”

The Zambezi basin’s rich natural resources

THE ZAMBEZI River Basin is one of the richest regions in Africa in terms of natural capital.

The basin has wetlands, aquatic systems, riverine woodlands, montane forests, dry forests and savannah ecosystems which support abundant wildlife and a great diversity of trees and plants.

It has magnificent attractions that have the potential to draw large numbers of visitors to the region each year.

The Victoria Falls is known as one of the largest and most spectacular waterfalls in the world, located on the Zambezi river that marks the boundary between Zambia and Zimbabwe with access to the falls through Livingstone, Zambia or Victoria Falls, Zimbabwe.

The Zambezi river has large gorges which include the Batoka, Kariba, Mupata and Lupata, and two artificial lakes resulting from hydroelectric dams at Kariba shared by Zambia and Zimbabwe and Cahora Bassa in Mozambique that feed into the regional electricity grid.

The river basin has several Trans Frontier Conservation Areas (TFCAs) incorporating some of Africa’s finest national parks and safari areas.

Major TFCAs in the basin include the recently launched Kavango-Zambezi TFCA, which covers five countries - Angola, Botswana, Namibia, Zambia and Zimbabwe. The KAZA-TFC is the world’s largest conservation area.

Other TFCAs being developed include the ZIM OZA covering areas in Zimbabwe, Mozambique and Zambia; the Selous-Nyassa covering parts of Mozambique and the United Republic of Tanzania; the Lower Zambezi-Mana Pools between Zambia and Zimbabwe; and the Liuwa Plain-Kafue which includes areas in Angola and Zambia.

The Zambezi River basin provides opportunities for game and bird viewing, bungee jumping, white water rafting, canoe trips and river cruises, wildlife viewing, fishing and boating, among other activities, as well as beautiful scenery and striking sunsets, wilderness landscapes and many natural resources that are of exceptional value.
**FACED WITH** a fast-changing environment, the Zambezi River Basin states are taking steps to promote sustainable use and management of natural resources through a new research project that gives a basin-wide perspective.

The Zambezi Environment Outlook Project is a direct response to the need to keep the state, trends and outlook of the environment under continuous review.

Human activity such as deforestation, as well as the impact of climate change and variability, has brought drastic changes to the environment in the Zambezi River Basin over the past decade, impacting on socio-economic development.

The Zambezi basin is one of the areas hardest hit by climate change and variability. According to the Fourth Assessment report of the Intergovernmental Panel on Climate Change, temperatures in the basin and the rest of southern Africa have increased by 0.5 degrees Celsius over the last century with the 1990s deemed the warmest and driest decade ever.

The Zambezi Environment Outlook Project aims to illuminate these issues to enable decision makers and the public to take positive steps in addressing environmental change.

The research and data collection throughout the basin will be used to produce a Zambezi Environment Outlook report, updating the well-respected book on State of the Environment Zambezi Basin 2000.

Communication with basin stakeholders through initiatives such as this newsletter produced in English and Portuguese, The Zambezi O Zambezi, is an integral part of the project over three years to 2015.

The Zambezi newsletter, produced twice a year, will feature key environmental issues in the basin, while a status report on integrated flood and drought mapping will strengthen efforts in coping with climate change impacts through increased access to disaster risk information.

The Zambezi Integrated Water Resources Management Strategy (ZAMSTRAT) of 2008 notes that in spite of the economic growth achieved over the last 10 years and the abundant water and other natural resources, poverty in the basin remains a major challenge.

Key issues identified by the strategy include limited access to water supply and sanitation, inadequate water infrastructure for achieving regional energy security, insufficient infrastructure for agricultural development to achieve regional food security, and inadequate financing of water resources development and management.

Gender and youth issues will be mainstreamed in the project outputs, as women and men are impacted differently by changes in the environment.

Women are traditionally the primary users of water and other environmental sources in domestic consumption, and in subsistence agriculture, health and sanitation.

Therefore, lack of access to water, sanitation, and water resources such as wetlands, directly affects the health of women and their families, impacting on education, income and empowerment.

The ecological and economic impacts of the recurrent floods and droughts in the Zambezi basin must be better understood, as well as the impact on the environment and society, in the context of human vulnerability and disaster risk reduction.

This will be analysed with regard to impact on the results of various Zambezi basin initiatives, activities and objectives.

As part of its strategy and methodology, the project will seek to establish links with ongoing projects in the basin and the region.

The analysis will be conducted on the basis of vulnerability assessments as ongoing initiatives of the Southern African Development Community (SADC).

The Zambezi Environment Outlook Project is a new initiative by the Zambezi Watercourse Commission (ZAMCOM) and the SADC Water Division, and seeks to strengthen access to environmental knowledge to promote national and transboundary natural resource management in the Zambezi basin.

The project is implemented by the environment institute of the Southern African Research and Documentation Centre (SARDC) – the I. Musokotwane Environment Resource Centre for Southern Africa (IMERCSA) – with support from the German Agency for International Cooperation (GIZ), Australian Aid and UK Aid.

A Steering Committee made up of government officials from the eight Zambezi basin states will be established to provide policy guidance to the project.

The ZAMCOM Secretariat, SADC Water Division, SARDC and GIZ provide overall coordination and management of the project, through a Coordination Committee chaired by ZAMCOM.

A Technical Committee, comprising of representatives of National Stakeholders Coordination Committees (NASCs) and SADC IMERCSA’s longstanding National Collaborating Centres, provides expert guidance to the process.

The first meetings of the coordination and technical committees were held in Harare, Zimbabwe, in February while the Steering Committee is expected to meet in April. ☐
The Zambezi River

- Is the longest river in southern Africa and fourth longest in Africa after the Nile, the Congo and the Niger.
- Rises on the Central African Plateau in the Kalene Hills in northwestern Zambia and flows 3,000 km to its delta in Mozambique at 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 largest and most shared river basin wholly within southern Africa.
- Covers about 25 percent of the total geographic area of the eight riparian states.
- Is home to more than 40 million people, projected to reach 51 million by 2025.
- Has many different ethnic groups and cultures with a proud history stretching back thousands of years.
- 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 areas in Malawi and most in Zimbabwe, including Harare.
- Contains Lake Malawi/Nyasa/Niassa covering 28,000 sq km, Africa’s third largest freshwater lake after Lakes Victoria and Tanganyika, and the third deepest in the world.