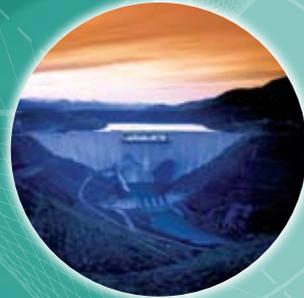
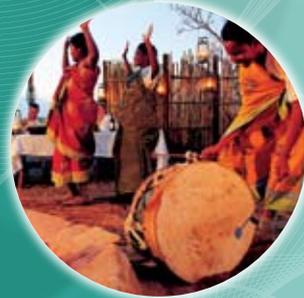




SADC Infrastructure

Development Status Report
for Council and Summit

September 2009



"Gearing SADC for Economic Growth and Integration
through *Regional Infrastructure Development*"

SADC members



Angola



Botswana



DRC



Lesotho



Madagascar



Malawi



Mauritius



Mozambique



Namibia



Seychelles



South Africa



Swaziland



Tanzania



Zambia



Zimbabwe



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SADC Vision

The SADC vision is one of a common future, within a regional community that will ensure economic well-being, improvement of the standards of living and quality of life, freedom and social justice; peace and security for the peoples of Southern Africa.

This shared vision is anchored on the common values and principles and the historical and cultural affinities that exist amongst the peoples of Southern Africa.

SADC Mission

To promote sustainable and equitable economic growth and socio-economic development through efficient productive systems, deeper co-operation and integration, good governance, and durable peace and security, so that the region emerges as a competitive and effective player in international relations and the world economy.

Infrastructure and Services Directorate

Vision

World class facilitation of regional integration and sustainable development through provision of and universal access to infrastructure and services

Mission

To facilitate through strategic expertise, the provision of adequate, integrated and cost efficient infrastructure related services to support regional integration and poverty reduction.

A Word from the Chairperson

My Esteemed Colleagues,

Let me take this opportunity at the outset, to appreciate the commendable role that my predecessor played in maintaining high profile advocacy on infrastructure for the SADC region, which no doubt, not only inspired many of us, but also was a lesson for South Africa to champion projects in infrastructure development. The past year, in which South Africa has officiated as Chair of SADC, has been filled with many wonderful experiences and challenges. It was a year during which infrastructure development has assumed even greater importance than in the past. It is critical that through our decisions and actions, we sent a message world over, that we are taking this issue as a region, more seriously than ever before. South Africa, in its effort to champion acceleration of infrastructure development in the SADC region, established a Task Team and thematic committees that worked closely with the Secretariat and participating Member States on the following projects:

- Five Spatial Development Initiative Programmes entailing the Central, Mtswara, Nacala, Beira and Bas Congo Corridors;
- The Westcor Project;
- The NEPAD Broadband Infrastructure Project;
- Infrastructure Development Within Identified 2010 Project Trans-frontier Conservation Areas;
- The Lubumbashi Water Supply and Sanitation Project

We also recall that the Assembly of the African Union held a Special Session on Infrastructure in February, 2009, in Addis Ababa, Ethiopia, and underscored the urgency with which infrastructure development should be executed. Several Heads of State around the table today profoundly contributed to the African Union (AU) Session and we need to make good use of the momentum developed at, among others, the continental level.

Your Excellencies, our discussions at the Extra-Ordinary Summit held in Midrand, South Africa, in October, 2006, highlighted the urgency relating to regional economic integration, on the basis on which we set up a Ministerial Task Force to implement a regional strategy to deepen regional integration in line with milestones set out in the Regional Indicative Strategic Development Plan (RISDP). In implementing the RISDP, our regional strategy to reduce poverty, we are fulfilling the vision and legacy of our founding fathers that put our regional structures into place. An analysis of the trends relating to globalisation and global competitiveness has clearly demonstrated that the best springboard for development is integration at the sub-regional level, clearly illustrating the benefits of collective actions as opposed to individual approaches. South Africa is proud at having played a part in this process, and having taken leadership with your support, Your Excellencies.

Africa has risen to the stark realities that unless and until the challenge of lack of infrastructure is meaningfully addressed, there can be no effective trade and development in our region. We are excited by the milestone launch of the SADC Free Trade Area last year, as the first step towards achieving the long awaited Customs Union and Common Market, clearly suggesting that our market integration process has started in earnest. However, the operationalisation of these trade regimes cannot be realised without the provision of infrastructure. I cherish your collective wisdom, Your Excellencies, to revisit and refocus the road map for the implementation of our trans-boundary infrastructure. This is the surest way that our region can unlock opportunities for trade, development and enhanced global competitiveness.



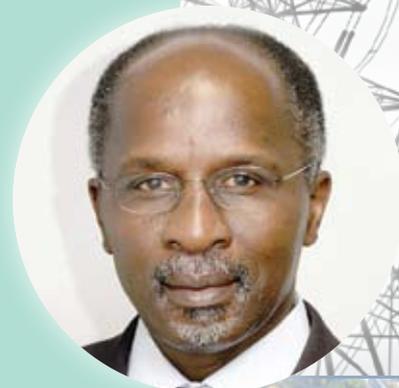
A Word from the Chairperson

The plight of our Member States which have worked tirelessly to restore peace in their countries should be recognised, and it is in this spirit that the region has to come up with a radical post conflict infrastructure reconstruction programme for Angola, DRC and to some extent, Mozambique. I have no doubt, that through such an initiative, the minimum connectivity of our States in the form of transport, communications, energy, trans-boundary water infrastructure and tourism infrastructure can be achieved and propel our region to unprecedented heights. I am proud to be part of the spirit of consensus, that has been the hallmark of our regional covenants and hope that this shall continue to prevail during our deliberations.

I look forward to participating in discussions around the SADC Infrastructure Development Programme, and have no doubt that at the end of our discourse, we shall provide the necessary guidance to our Infrastructure and Services Cluster Ministers, our partners, our officials and the Secretariat, all of whom I wish to recognise on your behalf for the sterling efforts they continue to make in pursuance of this noble cause.

H.E. Jacob Gedleyihlekisa Zuma, President of the Republic of South Africa and Chairperson of SADC

From the Executive Secretary's Desk



The SADC Heads of State and Government have in their wisdom once again taken time to reflect on the process of implementation of Priority Regional Infrastructure in SADC at the 29th Ordinary Summit.

This development could not have come at a more opportune moment. This session of our Summit of Heads of State and Government is significant in more ways than one.

First, as SADC launched a Free Trade Area in 2008, with good prospects for a Customs Union and Common Market in the near future, infrastructure development is central to promoting open trade and enhancing our productive capacity and efficiency as a region.

Second, the Heads of State and Government took the opportunity at their 2006 Maseru Summit to brainstorm on Scaling Up of the Regional Economic Integration Agenda. The outcome of the session was the re-affirmation of the need to implement milestones relating to the regional economic integration agenda, as set out in the Regional Indicative Strategic Development Plan (RISDP), our regional blueprint for development.

There is wide acknowledgement that after the Windhoek Declaration of April 2006 whereat “**Regional Economic Integration**” and “**Infrastructure Support for Regional Integration**” emerged as the key priorities, and given their inter-relationships, the twin priorities need to be pursued as one “**Regional Integration Programme**”.

The implementation of two key protocols has been central to the SADC Regional Economic Integration Agenda in our region. These are the Protocol on Trade and the Protocol on Facilitation of Movement of Persons. Free movement of persons constitutes the key pillar of trade and the availability of transport infrastructure is pivotal to this realisation.

Access to raw materials and access to markets for completed products at cheap and affordable cost is all that business needs to be competitive if the region is to eradicate poverty on the basis of export-led growth.

Communications, least cost energy supply, and cost-efficient water supply and sanitation are all essential ingredients for our region to stimulate growth and achieve the Millennium Development Goals (MDG).

Above all, it is important that infrastructure development embraces global conventions on sustainable environment and development so that our future generations will not judge us harshly.

Provision of regional infrastructure is critical for us to meet some of the SADC objectives stated in the Treaty, which we restate here to remind each other again:

- Achieve development and economic growth, alleviate poverty, enhance the standards and quality of life of the peoples of southern Africa and support the socially disadvantaged through regional integration;
- Promote self-sustaining development on the basis of collective self reliance, and the inter-dependence of Member States;
- Achieve complementarity between national and regional strategies and programmes; and
- Promote and maximise productive employment and utilisation of resources of the region.



Infrastructure development that strengthens regional integration will also lay the foundation for the strong role to be played by the SADC region as a building block for the African Union and African Economic Community.

A strategic response to the current global financial crisis and recession cannot be fully responsive without investment in infrastructure. Such a response is informed by global best practices and experience which demonstrates that investment in infrastructure projects during a recession protects jobs, reduces financial shocks and prepares the region for recovery. There are positive transfer and multiplier effects throughout our economies if we jointly implement this strategy.

It is against this background that Summit is taking the liberty to review achievements and challenges relating to implementation of regional infrastructure development, on the basis of which Your Excellencies shall guide our Ministers, Officials, the Secretariat and all other pertinent stakeholders, given its relevance to our developmental vision.

Whilst some measure of achievement has been made in the various sectors, (as documented in the report), the restructuring of SADC institutions in 2003 resulted in less than the critical mass required to implement infrastructure and current efforts seek to regain the lost momentum.

Let me take this opportunity to appreciate the efforts of the Director, Infrastructure and Services and the Project Coordination Unit (PCU) in the Directorate for putting together this report. Furthermore, allow me to acknowledge the support rendered by the DFID funded Regional Trade Facilitation Project, for having agreed to fund the publication and printing of this report.

I wish to take the liberty to congratulate you, Your Excellencies, on this exciting engagement and I look forward to the policy dialogue that will inform our programmes in this core area of our regional socio, economic and political programmes.

H.E. Dr Tomaz Augusto Salomão, Executive Secretary

A Note from the Directorate of Infrastructure and Services

The implementation of SADC regional infrastructure has been central to the agenda of the Infrastructure and Services Cluster Ministers. Delivery of hard infrastructure has assumed priority at the highest levels in all our Member States in the region. The SADC Infrastructure Sectoral Ministers took the opportunity in the last few months to review achievements and challenges relating to delivery of infrastructure, and this regional synthesis report seeks to profile the achievements that the sectors have made.

We appreciate the support that the Member States continue to render to ensure effective implementation of infrastructure, and more importantly the guidance that we continue to be accorded in the endeavour to promote universal access to infrastructure. The process is slow and frustrating, but certainly not insurmountable.

An interdisciplinary team of regional experts in the Directorate is responsible for the coordination of implementation of infrastructure projects with Member States. The region takes pride in the fact that this team includes three women experts on infrastructure, who have excelled in the area and have helped destroy the myth that infrastructure development is a men's preserve. From the Infrastructure Team at the Secretariat, we pay tribute to Ms Cecilia Mamelodi-Onyadile, Ms Judith Nwako and Ms Mapolao Mokoena.

We look forward to the outcomes of the ongoing review of regional infrastructure development, and have no doubt that it will inform our way ahead, as we seek to change the pace and course of the infrastructure delivery for a positive region bound by common ideals and a common history.

Remigious Makumbe,

Director, Infrastructure and Services and all the Infrastructure and Services Team Members



Executive Summary

This report synthesises the challenges and achievements on SADC regional infrastructure projects, and proposes a way forward towards achievement of SADC's goal in the infrastructure cluster. The primary objective is to appraise the Council of Ministers and the Heads of State and Governments on the scope and status of implementation of the regional Infrastructure projects, since the commencement of Regional Indicative Strategic Development Plan (RISDP) implementation in April, 2005.

Regional Indicative Strategic Development Plan

It is axiomatic, that the provision of regional infrastructure is key to the SADC region meeting some of the objectives stated in the Treaty, in particular those relating to economic growth, poverty reduction, sustainable development and maximisation of productive employment. The RISDP, the SADC blueprint for development, outlines the key interventions necessary to deepen regional integration and reduce poverty on a sustainable basis. Investment in infrastructure remains a priority for the region and has been recognised as the backbone of regional integration. Access to infrastructure plays a pivotal role in enabling the region to achieve at least 7% economic growth rate, which is a prerequisite for the region to attain the MDG targets as espoused by the United Nations Millennium Declaration of 2005. The Report reviews progress in these areas.

Regional Infrastructure Master Plan

The SADC Heads of State and Government held a *“Brainstorming Session on Infrastructure Aimed at Scaling up Infrastructure Development in SADC”* in August, 2007. As key outcomes of this session, Summit recognised the need to promote investment in infrastructure, the development of the SADC Regional Infrastructure Master Plan as a basis for benchmarking infrastructure development. The Secretariat assisted by the Infrastructure and Services Ministerial Cluster, was directed to formulate a strategy to ensure speedy and cost effective implementation of infrastructure as a matter of urgency. It is against this background that a comprehensive report on the achievements, challenges and proposed way forward has been prepared for consideration and review by Council and Summit.

This initiative is also the response strategy to the decision of the SADC Heads of State and Government to re-affirm the milestones relating to the attainment of the SADC Free Trade Area, Customs Union and Common Market, within the milestones set out in the RISDP. It is envisaged, that through these interventions, some of the key goals of the RISDP, namely, reducing the cost of doing business in SADC, enabling productive competitiveness and addressing supply side constraints shall be attained.

Poverty Reduction

The region convened the SADC International Conference on Poverty in Mauritius in April, 2008, at which forum the SADC Heads of State and Government mapped the linkages between access to infrastructure and poverty reduction, guided by the universal access principle. In determining the next steps to address poverty reduction, infrastructure development was at the epicenter of the SADC Regional Poverty Reduction Framework that will guide the region in ensuring systematic implementation of programmes that meaningfully address poverty reduction.

This report highlights the progress made with regard to the implementation of the programmes of infrastructure development within the five sectors of Energy, Tourism, Transport, Communications and ICT, as well as Water. The main conclusion is that while a good start has been made especially in establishing the legal and regulatory frameworks for co-operation, a lot still needs to be done with respect to establishing robust institutions and implementing regional projects. Most projects are still at feasibility and design stages whilst a few are moving through implementation stages. A common challenge discussed in the report, is how to manage the nexus between national and regional infrastructure policies, strategies and programmes. Most often there are interface, prioritisation and synchronisation problems between national and regional projects. This scenario is aggravated by finding constraints and human capacity constraints at levels-national and regional.

This report reviews the SADC Infrastructure Development Programme with a primary focus on the three **"Is" - Instruments, Institutions and Infrastructure**. These three primary intervention areas are not only interconnected but are the major gears driving the programmes.

Project Implementation Framework

The implementation of projects remains the responsibility of the Member States, with the Secretariat providing a coordination, monitoring and reporting role. Given the capacity constraints within the Secretariat, and the provisions of the protocols, a number of regional bodies have been established as SADC subsidiaries in the areas of energy, tourism, transport, communications and meteorology. These bodies, best known as associations, have been mandated to take charge of the implementation of hard infrastructure programmes as centres of excellence, and have contributed significantly to the delivery of the much needed infrastructure. In addition, some specialised institutions have also been designated as Implementing Agencies for certain projects. In either case, success is underpinned by the comparative advantage of these institutions.

Achievements

Whilst it took some time to regain the lost momentum with regard to delivery of hard infrastructure projects, there are some notable achievements worth celebrating.

In the tourism sector, efforts on joint marketing of SADC as a single destination have begun to bear fruit, and the finalisation of the 2010 FIFA World Cup Tourism Strategy was another milestone. In the area of energy, the region has commissioned generating plants that have delivered 3 140 Mega-Watts to the Southern African Power Pool, which has gone a long way towards alleviating the ongoing power shortages within the region. This notwithstanding, it is expected that power shortfalls in SADC will be addressed fully by 2013 at a total cost of USD 17.4 billion, which would deliver 8 800 MW to the Pool. Several projects are in the process of implementation based on the recently completed Southern African Power Pool (SAPP) Plan. It is gratifying to note that the SAPP Members have signed a SAPP Pledge to Eskom, which commits the power utilities outside South Africa undertaking to provide any power shortfall required to adequately power the 2010 World Cup games and all associated activities.

In the area of transport, progress has been made with the implementation of the SADC Corridor Strategy approved by Ministers in May, 2008. The convening of the North – South Corridor Investment Conference also added impetus to provision of corridor related infrastructure. Furthermore, the liberalisation of the Skies as part of the Yamoussoukro Decision has been encouraging, given the prevailing sensitivities to open up the skies.



The SADC minimum inter-state connectivity network is now 80% complete, obviating challenges of communication amongst Member States. A number of under-sea cables have also been commissioned, successfully linking the SADC countries to the rest of the world at significantly reduced costs.

In the water sector, access to water has been a priority focus, and within this framework, a number of projects have been identified on water supply and sanitation which, once completed, will promote access to water as well as enhancing the opportunity to meet MDG targets.

Financing of infrastructure projects remains a major challenge, especially for infrastructure which has connotations of a public good, in particular those that are not attractive to Public Private Partnerships (PPPs). Efforts continue to be made to leverage funding for project preparation, development and packaging of projects to ensure that a sustainable pipeline of bankable projects is available.

Member States Benefits from Infrastructure Projects

An overview analysis of the extent to which Member States are benefiting from the SADC Regional Infrastructure Development Programme is attached as an annex to this report.

Introduction

The development of infrastructure and services is critical for promoting and sustaining regional economic development, trade and investment. The potential for deepening integration through sharing of the production, management and operations of infrastructure facilities, hubs or development corridors is inestimable.

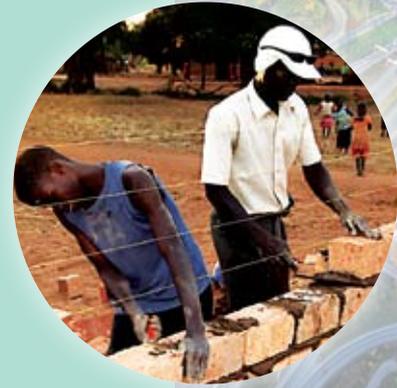
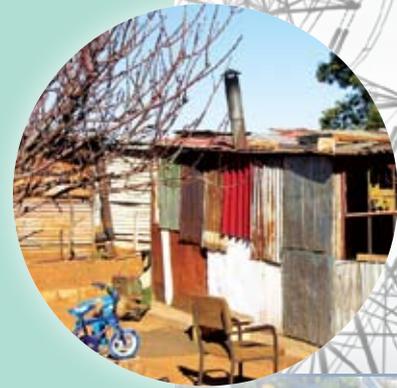
There is broad consensus that infrastructure is a key enabler of socio-economic development and the point of departure for deepening regional economic integration and unlocking opportunities for trade, development and enhanced global competitiveness.

Objectives of this Report

The objectives of this report are to;

- Appraise the Council of Ministers and the Heads of State and Governments regarding the scope and status of implementation of the regional Infrastructure, since the commencement of RISDP implementation in April, 2009.
- Identify challenges and opportunities relating to the implementation of the regional infrastructure programme.
- Seek approval on the recommended strategy for the acceleration of the implementation of regional infrastructure projects.
- Create an appreciation among the regional leadership of the portfolio of priority regional projects under implementation, on which the Secretariat requires full support.

Going forward, this report lays the foundation for future regular reports on infrastructure development to Council, Summit and other pertinent stakeholders.





1. Background

Scope and Context of Infrastructure Development in SADC

Provision of regional infrastructure is a prerequisite to meeting some of the SADC objectives stated in the Treaty, namely:

- Development and economic growth, alleviate poverty, enhance the standards and quality of life of the peoples of Southern Africa and support the socially disadvantaged through regional integration;
- Promote self-sustaining development on the basis of collective self reliance, and the inter-dependence of Member States;
- Achieve complementarity between national and regional strategies and programmes; and
- Promote and maximise productive employment and utilisation of resources of the region.

The overall objectives of the SADC Regional Infrastructure Programme are to:

- Ensure the availability of sufficient, least-cost energy, transport, water and sanitation infrastructure, ICT and telecommunications services that will assist in the attainment of economic efficiency and the eradication of poverty, whilst ensuring the environmentally sustainable use of energy resources;
- Facilitate the development of tourism, as well as marketing the region as a single multifaceted tourism destination to achieve sustainable social and economic development, equity, balance, improve the quality, competitiveness and standards of service of the tourism industry in the region;
- Harmonise regional policies, regulatory and legislative regimes and other policy instruments enshrined in the requisite regional Protocols and relevant Annexes, as well as global and international conventions and standards;
- Create an enabling environment to facilitate investment in infrastructure, through harmonised institutional, legislative and regulatory policy development.

Accelerating the Pace of Regional Integration

Infrastructure development has been identified as a key driver of regional development and integration in the Southern African Development Community (SADC), and is prioritised in the Regional Indicative Strategic Development Plan (RISDP) as the facilitator of intra-regional trade and economic growth leading to poverty eradication.

The SADC Heads of State and Government took the opportunity at the 2006 Maseru Summit to brainstorm on Scaling Up of the Regional Economic Integration Agenda. The outcome of the session was the re-affirmation of the need to implement the market integration milestones as set out in the RISDP.

SADC's twin priorities are *“Regional Economic Integration”* and *“Infrastructure Support for Regional Integration and Poverty Reduction”* as espoused by the RISDP, SADC's blueprint for development.

As SADC is committed to deeper integration through the following stages - Free Trade Area (2008), a Customs Union by 2010 and a Common Market by 2015 it is essential that the region accelerates the pace at which infrastructure projects are implemented. The objectives of these trade regimes cannot be realised without the provision of efficient, cost effective and reliable infrastructure. The implementation of two key protocols has been central to the SADC Programme of Action in our

region. These are the *Protocol on Trade* and the *Protocol on Facilitation of Free Movement of Persons*. The movement of persons constitutes the key pillar of trade and the availability of transport infrastructure is pivotal to its realisation.

Reducing the Cost of Doing Business in SADC

Access to raw materials and access to markets for completed products at cheap and affordable cost is a fundamental basis for global productivity and trade competitiveness, if the region is to eradicate poverty on the basis of export-led growth. The development of infrastructure in SADC will also go a long way in addressing supply side constraints and maximising the region's productive competitiveness. In order to accord the SADC Region some competitive edge, it is necessary to reduce the cost of doing business through provision of cost effective infrastructure, which provides access to markets, raw materials and other socio economic imperatives.

Universal Access to Infrastructure and Attainment of MDGs

The enhancement of access to infrastructure by the disadvantaged rural communities should create realistic opportunities for SADC to attain the targets espoused by the MDGs within the timeframes set by the United Nations Millennium Declaration of 2005. Infrastructure development, as a catalyst for human development, has assumed greater and greater prominence in our region. One of the SADC Member States, the United Republic of Tanzania, has embraced the vision of infrastructure development to the extent that they have established a Ministry of Infrastructure.

Access to infrastructure plays a pivotal role in enabling the region to achieve at least a 7% economic growth rate, which is a prerequisite for the region to attain the MDG targets. It was against this background that the Heads of State SADC International Conference on Poverty was held in Mauritius in April, 2008. The Conference identified key areas of infrastructure development as an integral part of the *SADC Regional Poverty Reduction Framework*, which attests to the role that the sector can play in transforming the quality of lives of its people.

A collective approach to implementation of regional infrastructure projects is the surest way of accelerating regional integration. There is a need for Member States to redouble their efforts and recommit themselves to working more closely together to deliver infrastructure, consistent with the region's roadmap for the regional economic integration agenda.

There is a need for a paradigm shift in the manner the SADC region undertakes its business. The key players on the ground are the Member States, the Secretariat, Regional Bodies, Implementation Agencies and the private sector.

In order to enable the region to meet the challenges of infrastructure development, SADC has put in place legal and policy frameworks through the formulation and adoption of appropriate instruments such as protocols, policy and strategic guidelines, regulatory frameworks and technical standards. Whilst the region sees a greater need for an accelerated infrastructure support intervention programme that addresses "hard" infrastructure issues, it is recognised that there is also a need to scale up implementation of the "soft" infrastructure to underpin the development of the hard infrastructure.

While progress has been made in developing "hard" and "soft" infrastructure, including regulatory frameworks, the region still has to overcome the challenge of putting some of its commitments into action.



2. Implementation Mechanisms

Role of the Secretariat and the Project Coordination Unit (PCU)

In order to effectively operationalise the goods and market integration, adequate, accessible, cost effective infrastructure, in respect of transport, energy, communications, ICT and water is required and is being pursued under the theme *“Infrastructure Support for Regional Integration”*. The pace of implementation of infrastructure has, to date, not been speedy enough to address the requirements of the anticipated quantum of regional trade in SADC. This poses the greatest challenge to the region in terms of facilitation of trade and elimination of non tariff barriers (NTBs).

During the 2007 Summit, the SADC Heads of State brainstormed on the state of infrastructure in the region and reviewed the financing requirements to scale up implementation of regional or trans-boundary infrastructure. The session underscored the need to strengthen the Secretariat to enable it to effectively and promptly implement infrastructure projects to support the regional integration process.

Summit thereafter underscored the need to have the SADC Regional Infrastructure Development Master Plan (RIDMP) by August 2008, for adoption at its 28th Ordinary Session. To this end, the region put in place a programme to undertake a study to develop the Regional Infrastructure Master Plan, which will guide the region in respect of the implementation of trans-boundary infrastructure.

Having recognised the need for speedy implementation of infrastructure in the SADC region, in order to support the demands and drive for integration in the wake of the pending open trade regimes, the SADC Secretariat set up an Infrastructure Development *“Project Coordination Unit (PCU)”* comprising experts covering all the infrastructure sectors.

The PCU is mandated to undertake the following tasks:

- Focus on full time facilitation and coordination of infrastructure development programmes by the Member States, regional bodies, implementing agencies and other stakeholders;
- Coordinate the process of project preparation and development in order to avail bankable projects to investors;
- Identify and source funding for project development preparation and investment in physical infrastructure projects
- Operate as a *“one stop shop”* on custody and provision of information and reports on SADC infrastructure projects to the principals, other authorized parties and stakeholders.
- Coordinate project implementation through participation in *“Trans-boundary Infrastructure Project Steering Committees, NEPAD and Development Finance Institutions.*

In this regard, five experts have been assigned to the PCU. These include a *PCU Project Manager, Transport Expert, Energy Expert, Water Infrastructure Expert and a Communications and ICT Expert*. The PCU is a *“ring fenced”* unit within the Directorate of Infrastructure and Services (I&S) and is responsible to the Director I&S. The PCU executes its functions in relation to the complete project cycle-identification, development, packaging and implementation of trans-boundary infrastructure projects, through close collaboration with the SADC Member States, Regional Bodies, Development Institutions, the Private Sector and International Cooperating Partners (ICPs) constituted into Thematic Groups.

Project Implementation Framework

Implementation of infrastructure follows concretely agreed steps from project inception, packaging, investment and ultimately commissioning. SADC has recognised key deliverables for the implementation of infrastructure, and these are the three “*I*s”, namely Instruments (Inter-State MoUs etc.), Institutions (i.e. cross border multilateral structures at policy and project levels) and infrastructure (pertaining to implementation of physical infrastructure). A review of the extent of implementation of projects is clearly associated with the attainment of these three milestone deliverables.

In presenting this report, reference has been made to the status of these three imperatives as a way of shedding clarity on the achievements relating to project implementation.

The COMESA-EAC-SADC Tripartite Dimension in Infrastructure Development

One of the key challenges relating to the regional economic integration agenda is the overlapping characteristics of membership of the three East and Southern African Regional Economic Communities (RECs) - Common Market for Eastern and Southern Africa (COMESA), East African Community (EAC) and SADC. In order to avoid duplication of infrastructure development projects and programmes, a decision was taken by the supreme organs of the three RECs to institute joint programmes of infrastructure development.

Following the successful convening of the COMESA-EAC-SADC Tripartite Summit held in Kampala in October, 2008, a decision was reached by the three RECs to develop a joint Inter-Regional Infrastructure Master Plan which would constitute the basis for joint planning, resource mobilisation and implementation of infrastructure. The successful convening of the COMESA-EAC-SADC North-South Corridor Investment Conference, held in Lusaka in April, 2009, marked the first step in fostering of this collaboration. Approximately, USD 1.2 billion was pledged at the conference for implementation of infrastructure programmes in relation to energy and transport infrastructure, as well as transport and trade facilitation programmes. Since the conference, other donors and partners have signalled their support for implementation of infrastructure within this framework. Work is at an advanced stage for the development of implementation mechanisms and packaging of these projects for implementation in the short to medium term.

The NSC comprises;

- Dar es Salaam Corridor linking the port of Dar es Salaam with the DRC/Zambia copper belt.
- North South (Durban) Corridor linking the port of Durban with DRC/Zambia copper belt via Zimbabwe & Botswana. It has a spur into Malawi via Harare.
- The NSC interconnects with Lobito, Trans Caprivi, Nacala, Beira, Maputo and Trans Kalahari Corridors.



North South Corridor Aid for Trade Programme

The North-South Corridor (NSC) Pilot Aid for Trade Programme is a joint COMESA-EAC-SADC initiative that aims to reduce the time taken and, consequently, the costs of surface transport (road and rail). High costs (particularly for landlocked countries) and above average transit delays lead to lower production and trading levels which in turn limit the potential to raise gross domestic product (GDP) growth rates.

The Corridor depicted in *figure 1*, serves as a regional transport and logistics backbone with lateral spurs, servicing nine countries – Angola, Tanzania, DR Congo, Zambia, Malawi, Botswana, Zimbabwe, Mozambique, and South Africa.

Working with the COMESA-EAC-SADC Tripartite Task Force, the DFID-financed Regional Trade Facilitation Programme (RTFP) is currently working to identify a package of projects in a sequenced holistic and multimodal way to upgrade transport systems along the North-South Corridor. A variety of funding mechanisms will allow various types of funds to be matched appropriately with different kinds of projects designed to attract public, private and development finance.



Fig. 1: The North-South Corridor Schematic

Pursuant to the above, the Tripartite Task Force convened a Donor Conference on 6-7 April 2009 in Lusaka, Zambia, whose objectives were to:

- Provide high-level support for implementing the Communiqué decision made at the Tripartite COMESA-EAC-SADC Heads of State meeting on 22nd October 2008 to create a COMESA-EAC-SADC Free Trade Area and harmonise infrastructure plans across these three regions;
- Secure donor, International Financing Institutions and private sector Aid-for-Trade commitments for removing infrastructure constraints hampering progress towards realising more trade, higher economic growth and faster poverty reduction, especially along the NSC; and

- Secure Aid-for-Trade commitments from the Chairs of the three Regional Organisations to address regulatory and administrative constraints blocking expansion of regional trade and economic growth.

The following were the outcomes of the High Level Investment Conference:

- The forum agreed on the critical importance of high level political commitment at the national level in order to spearhead and monitor implementation of agreed policy reforms to deepen regional integration and continue this discussion at the next Tripartite Council meeting;
- The forum generated strong financial and technical support for the North-South Corridor. About USD 1.2 billion of funding was committed by the development partners for upgrading road, rail, ports and energy infrastructure and to support implementation of trade facilitation instruments.
- The forum stressed the need to develop similar Aid for Trade programmes in respect of other priority regional transport and transit corridors, notably improving the Central Corridor from the Port of Dar es Salaam in Tanzania to Rwanda and Burundi; the Northern corridor from Mombasa in Kenya to Uganda, Rwanda, Burundi and DRC; and the Lamu-Southern Sudan-Ethiopia Corridor.
- The forum identified the need for Member States to show greater commitment to the identified projects and programmes by both providing counterpart funding and implementing and harmonising supporting policies and regulations so as to trigger additional and sustained funding from development partners;
- The forum underscored the need to put in place an institutional arrangement to programme and manage the North-South Corridor Pilot Model for Trade Programme; put in place a mechanism to access and disburse the committed funds; identify funding gaps; propose a sequence of implementation; prepare bankable projects; seek ways in which the private sector can come on board and complement public sector investment and financing for implementation of infrastructure projects.

The SADC Secretariat is working with tripartite partners to put in place mechanisms to realise the set objectives. These include establishing an institutional framework, a Tripartite Trust Fund to be housed and managed by the Development Bank of Southern Africa (DBSA), project management institutions, developing project management guidelines and procedures, establishing financial management and project monitoring and evaluation criteria and procedures.

The SADC Regional Infrastructure Development Master Plan

The SADC Secretariat is embarking on development of a consolidated SADC Regional Infrastructure Development Master Plan, which will be the basis for implementation of regional infrastructure. The Master Plan will represent the minimum infrastructure requirements needed to operationalise the SADC Customs Union and Common Market, and is expected to be completed by August, 2010.

The region has defined the minimum requirements for infrastructure to support the effective operationalisation of the Customs Union and Common Market, as espoused by:

- The **SADC SAPP Plan**, which defines the projects to be implemented to ensure adequate power for the region in the foreseeable future. The Pool Plan reflects the infrastructure development programme relating to power generating plants and key inter-connectors, with emphasis on provision of inter-connectors to ensure that Angola, Malawi and Tanzania are connected to the Southern African Power Pool grid network. The current regional installed capacity is 58 000 MW and current secured capacity is 48 649 MW, against a demand of 47 680 MW, giving rise to a surplus of 879 MW;



2. Implementation Mechanisms

- The SADC *Inter Regional Railway Network (IRRN)* which currently totals 22,500 km *and the Regional Trunk Road Network* which currently totals 62,000 km. The *Ports, Maritime and Inland Waterways Rehabilitation, Modernisation and Expansion Programme* is ongoing. These three programmes have a direct impact on the *SADC Corridors Infrastructure Development Programme* as well as the *SADC Corridors Trade and Transport Facilitation Programme*;
- The *SADC Regional Information Infrastructure (SRII) Project*, which defines the SADC optical fibre based telecommunications backbone network and is 80% complete. It facilitates SADC's linkages with the rest of the world, through among others, the Eastern Africa Submarine System (EASSy) under-sea Project, the NEPAD Broadband Infrastructure Network and other existing east-west under-sea cable networks;
- The *SADC Regional Strategic Water Infrastructure Development Programme (RSWIDP)*, which articulates the water infrastructure comprising water supply and sanitation, water for food security, water navigation facilities and water for hydropower generation;
- Programme on the Development of the *SADC Trans-frontier Conservation Areas (TFCAs)*, which is aimed at enhancing tourism arrivals and national receipts on an equitable basis for the region.

The process of infrastructure development is informed by a number of other initiatives, such as the NEPAD framework; the AU Extra-Ordinary Summit and SADC Summit on Agriculture and Water, as well as the SADC Extra-Ordinary Summit on Agriculture and Food Security; the SADC Declaration on ICTs; and the various SADC Investment Conferences; as well as the need to address the Post Conflict Reconstruction Initiatives for Angola and DRC; and the proposed SADC Regional Infrastructure Development Master Plan.

The Role of SADC Infrastructure Regional Subsidiary Bodies, Associations and Implementing Agencies

The region has, over the years, established Subsidiary Bodies as provided for in the requisite protocols in the four sectors of infrastructure. These bodies, constituted as Associations, have their membership comprising either national regulators or service providers. The Subsidiary Bodies have been mandated to implement infrastructure programmes relating to regulatory, capacity building and infrastructure development as Centres of Excellence. The invaluable role that these institutions have played needs to be recognised. The Subsidiary Bodies implement the programmes within the strategic framework of the RISDP.

These subsidiaries include:

Energy Sector

- Regional Electricity Regulators Association (RERA)
- Southern African Power Pool (SAPP)

Tourism Sector

- Regional Tourism Organisation of Southern Africa (RETOSA)

Transport

- Airline Association of Southern Africa (AASA)
- Association of Southern African National Road Agencies (ASANRA)
- Federation of East, Southern African Road Transporters Association (FESARTA)
- Ports Management Association of East and Southern Africa (PMAESA)

Communications and Meteorology

- Communications Regulators Association of Southern Africa (CRASA)
- Southern African Telecommunications Association (SATA)
- Southern African Postal Operators Association (SAPOA)
- Southern Africa Postal Regulators Association (SAPRA)
- Meteorological Association of Southern Africa (MASA)

Water

- River Basin Organisations (RBOs)

As a *modus operandi*, the Secretariat mandates appropriate institutions as Implementing Agencies to undertake programmes on its behalf, taking full advantage of their comparative advantage in terms of skills levels, human resource capacity and stakeholder representation.



3. Sectoral Programme Review

Energy

Scope of Programme

The Objective of the Energy Sector is to ensure the availability of sufficient, least-cost energy services that will assist in the attainment of economic efficiency and the eradication of poverty, whilst ensuring the environmentally sustainable use of energy resources.

The African continent, with about 13% of the world population only accounts for 6% of the world's energy consumption and 3% of the electricity generated. The per capita energy consumption is also only 0.6 MWh compared to the world average of 2.6 MWh. The SADC region mirrors a similar picture in spite of the abundant energy resources such as hydro, coal biomass and solar; which if harnessed can meet Region's projected energy needs and even exports. Access to electricity in the Region is very low, averaging 30%, ranging from 7% (DRC and Malawi) to over 70% (South Africa and Mauritius) compared to a world average of 75%.

The objectives of energy co-operation are:

1. To harmonise national and regional energy policies, strategies and programmes on matters of common interest based on equity, balance and mutual benefit.
2. Co-operate in the development of energy and energy pooling to ensure security and reliability of energy supply and the minimisation of costs.
3. Co-operate in the development and utilisation of energy in the Region in the following sub-sectors: wood fuel, petroleum and natural gas, electricity, coal, new and renewable energy sources, energy efficiency and conservation, and other cross-cutting themes of interest to Member States.
4. To ensure the provision of reliable, continued and sustainable energy services in the most efficient and cost-effective manner.
5. Promote joint development of human resources and organisational capacity building in the energy sector.
6. Co-operate in the research, development, adaptation, dissemination and transfer of low-cost energy technologies.
7. Strive to achieve standardisation in appropriate energy development and application including the use of common methods and other techniques.

While progress is being made to scale up access to modern energy, the Region is experiencing a power shortages, which has negatively affected trade, industry, delivery of social services and the general economic development in the Region. The Region has run into a power supply deficit situation due to *inter alia* the following reasons:

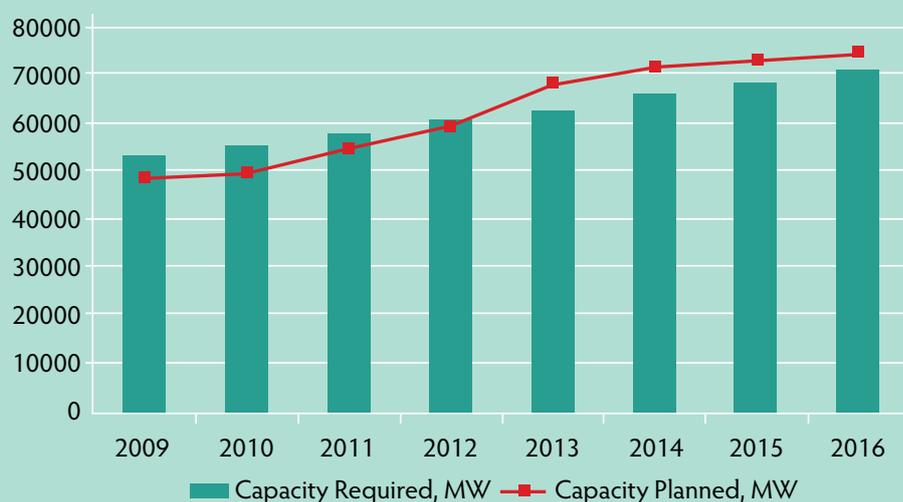
1. Economic Growth of more than 5% in most of the SADC member countries resulting in unprecedented growth in electricity consumption and demand.
2. Increase in demand for base metals resulting in high metal prices on the World Market with new mining companies being established in the SADC region in the last few years.
3. Inadequate investments in generation and transmission infrastructure over the last 20 years.

4. Electrification Programmes have partly contributed to the increased consumption and demand.

In 1999 the Southern African Power Pool Plan (SAPP) predicted that by 2007 the region would experience diminishing surplus generation capacity. Following the SAPP projection a Taskforce of Energy Ministers was constituted in 2004 to formulate a programme to address the diminishing generation surplus capacity in the region which was slowly becoming a reality. Indeed in 2007 before any measures could be implemented, the electricity supply-demand situation in the SADC region became unstable as evidenced by the frequent occurrence of black outs and load shedding in virtually all the countries of the SADC main land as well as in Madagascar. This situation is projected to persist until 2012/13 where power supply should surpass demand if all planned projects and other measures to address the shortfall are implemented [see *graph 1*].

In view of this the SADC Council of Ministers has committed to addressing the power shortages in the Region as a matter of priority.

Graph 1: Planned Versus Required Capacity



Instruments

The SADC Protocol on Energy, the SADC Energy Co-operation Policy and Strategy and SADC Energy Sector Action Plan provide the broad framework for the development of the SADC Energy Sector Activity Plan, indicating the policies and strategies to be pursued and translated into activities. Due to a variety of factors, including the profound reform process in the energy sector in the SADC region, and also the transition process in the SADC Energy Sector itself, most of the initiatives in the Action Plan have not yet been implemented. Hence, it became necessary to carefully review the Action Plan.

In accordance with the guiding vision of the *SADC Treaty*, the principles of the *SADC Protocol on Energy* of 1996 and the *RISDP*, the Member States are committed to develop and use energy to support economic growth and development, alleviation of poverty and improvement of the standard and quality of life throughout the Region. In pursuit of these goals Member States promote and encourage the direct participation of citizens and communities in the development of energy, and create a conducive environment for the private sector to participate fully in energy development in the Region.



Intergovernmental Memorandum of Understanding

In order to promote an integrated power system within the region, encourage electricity trading and power pooling and undertake integrated resource planning and development within the power sector Member States signed an Intergovernmental Memorandum of Understanding in 1995 to establish the SAPP retrospectively within the framework of the Protocol on Energy. The utilities operationalised this MoU by signing an Agreement between Operating Members. During their meeting in 2002, the SADC Ministers of Energy agreed to form a Regional Electricity Regulators Association (RERA) in order to harmonise the regulatory framework and provide a conducive environment for investment in the Region's power sector.

The SADC Protocol on Energy also provides for agreements between two or more Member States and non-Member States and between utilities to develop specific electricity projects and trade.

Institutional Arrangements

The Committee of SADC Ministers of Energy is the highest policy body in the Regional Energy sector. The Ministers, who report to Council, meet annually to consider the energy situation and give direction towards meeting the objectives of the SADC Energy sector.

A Task Force comprising Energy Ministers from Angola, Namibia, South Africa and Zimbabwe was constituted in 2004 to develop a road map, in consultation with all the SADC Member States, aimed at addressing the then projected decline and deficit in power shortfalls in the region.

Institutional Framework for Project Implementation

- SADC Ministers responsible for Energy with ultimate oversight on the Power Sector Projects Road Map.
- The Energy Ministerial Task Force, to review the pace of implementation of Power sector projects once every six months and report to the Energy Ministers.
- SADC Secretariat Project Coordination Unit, responsible for strategic coordination of implementation of infrastructure projects, which includes the project development, packaging, monitoring and reporting process in conjunction with the Member States, SAPP, RERA and Key International Partners.
- The Steering Committees, whose membership shall be at government official level, shall constitute the project champions with full accountability for implementation.
- Project Teams, composed of technical experts from utilities from the Member States, which may be national or trans-boundary in nature, will undertake day to day implementation and review of specific projects. The Project Teams shall involve the SAPP to facilitate a harmonised approach to project implementation. The Project Teams shall report to Steering Committees (project sponsors) at the national level or trans-boundary in respect of multinational projects e.g. the Westcor and interconnector projects.
- RERA shall undertake capacity building within the regulatory and institutional framework to ensure that an enabling environment, which is attractive for investment by among others the private sector, is obtained. RERA shall be strengthened to ensure that it has adequate capacity to discharge its responsibilities within the approved framework.
- Special Purpose Vehicles (SPVs) such as Westcor, shall be encouraged and expanded to include representative of SAPP in their Project Teams and Steering Committees. More SPVs shall be created to facilitate collective implementation of power projects by promoting comparative advantages for the Member States concerned.

The institutional structure for managing the regional energy sector roadmap and projects is depicted in figure below.

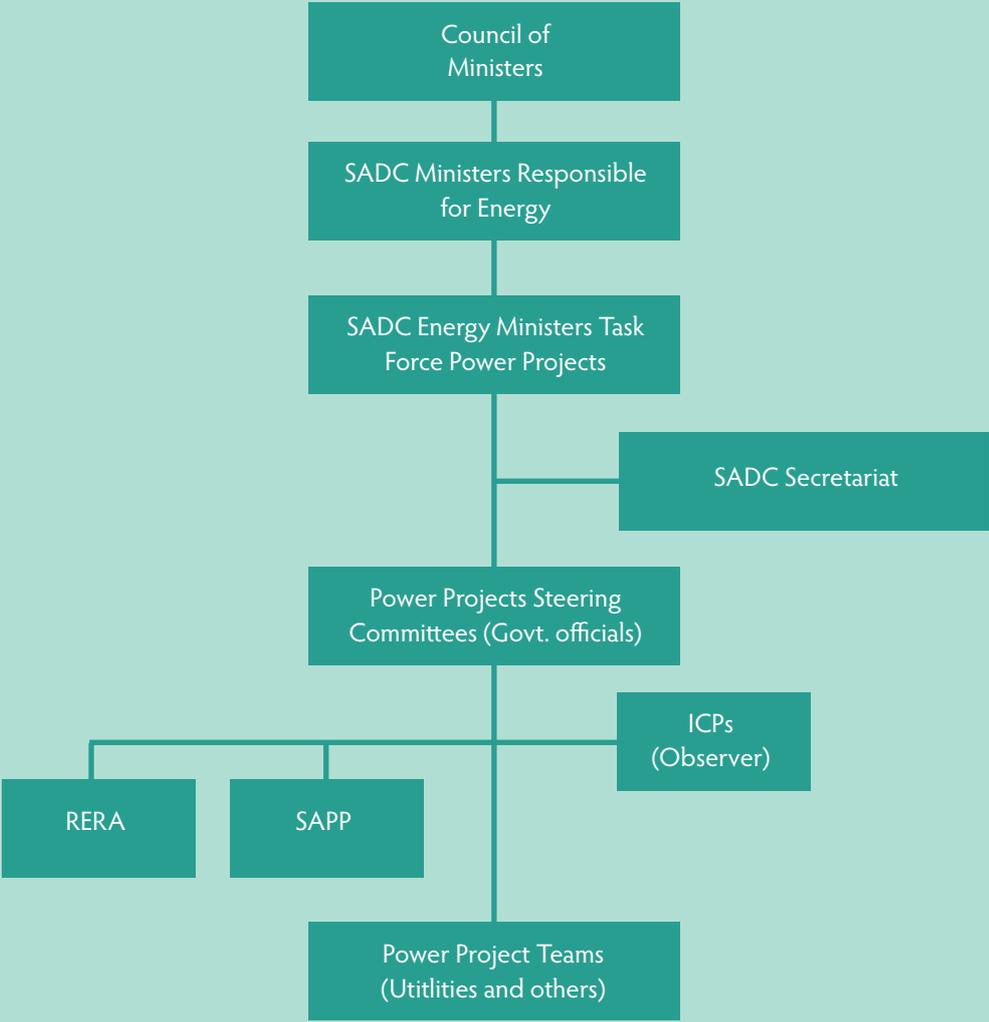


Figure 2: Institutional Framework for Project Implementation

SAPP and RERA continue be strengthened to ensure adequate capacity to facilitate the implementation of the Roadmap. The two agencies shall in future be given the additional mandate to champion regional power projects.

The Energy Thematic Group is an auxiliary structure set up in 2007 to leverage financial and technical support from ICPs to implement the SADC Energy Programmes. The group comprises the SADC Energy Unit, major ICPs in the energy sector, SAPP and RERA and meets biannually to review the energy programme and identify areas for support. The lead ICP is Norway through its Norwegian Embassy to Maputo.



Energy Infrastructure

Energy Sector infrastructural development involves developing power generation capacity and building power transmission lines to promote intra-regional connectivity. The region is fairly interconnected with the exception of Tanzania, Malawi and Angola.

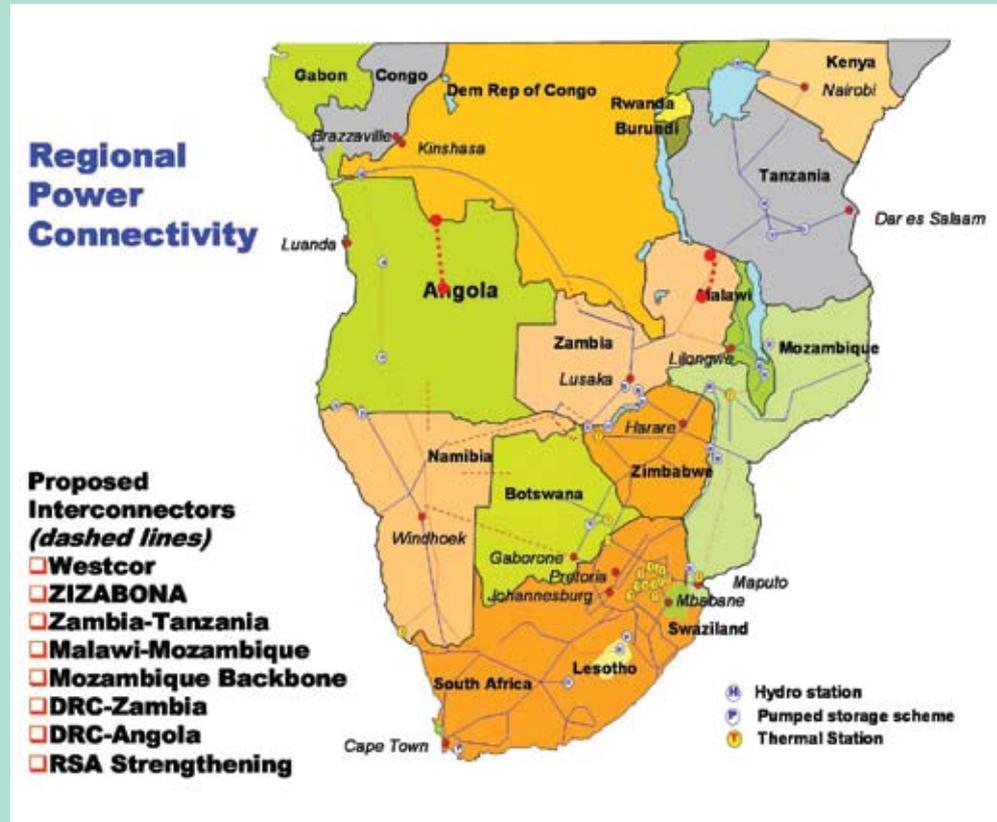


Figure 3: Mainland Regional Power Interconnectors

The overall SADC Region has an installed capacity of 55,927 MW, but only about 48,649 MW is available as at April 2009. For the interconnected SAPP grid, the installed capacity is 53,445 MW and the available capacity is 46,772 MW as at April 2009 against a peak demand of 43,267 MW in 2008 (Table 1). To meet the 10.2% reserve margin requirement, the Region only needs 47,680 MW giving rise to an apparent surplus of 968 MW. The excess capacity has come about mainly as a result of suppressed demand owing to the global economic slowdown, which has forced a number of industries to reduce demand. This is only temporary and should not be reason for complacency.

Table 1: Power Supply Situation in the Region

Country	Utility	Installed Capacity [MW] as at April 2009	Available Capacity [MW] as at April 2009	Installed minus Available [MW]	2008 Peak Demand [MW]
Angola	ENE	1,187	930	257	668
Botswana	BPC	132	90	42	503
DRC	SNEL	2,442	1,170	1,272	1,028
Lesotho	LEC	72	70	2	108
Malawi	ESCOM	287	267	20	260
Mozambique	EDM	233	174	59	416
	HCB	2,075	2,075	-	
Namibia	NamPower	393	360	33	430
South Africa	Eskom	44,170	40,483	3,687	35,959
Swaziland	SEC	70.6	70	1	200
Tanzania	TANESCO	1,008	680	328	694
Zambia	ZESCO	1,812	1,200	612	1,604
Zimbabwe	ZESA	2,045	1,080	965	1,397
Total SAPP		55,927	48,649	7,278	43,267
Total Interconnected SAPP		53,445	46,772	6,673	41,645

The Region has not been able to achieve its annual capacity development plans mainly due to slippages on commissioning dates as a direct result of the slow implementation of projects (*Table 2*). If the current power shortage is to be addressed, there is a need to accelerate development of additional power infrastructure.

Table 2: Planned Versus Commissioned Capacity (MW)

	2004 - 2006	2007	2008
Planned Capacity	1,185	1,925	2,014
Commissioned Capacity	998*	1,696	1,442
Deficit	187	229	572

*approximate

Transmission Projects

Implementation of cross border transmission projects is crucial to enable non connected members of SAPP to be connected, to facilitate trade among member countries and also to relieve transmission congestion that hampers trade within the region. The following is the status on the key regional transmission projects:

- **Zambia-Tanzania-Kenya Interconnection Project**

There has been little progress on the project. Project coordination challenges are being experienced. In addition, there is a need to identify the PPAs that would drive the project. Nevertheless, the SAPP views this project as strategic since it would enable the interconnection of Tanzania to the SAPP system and can be used as a vehicle to facilitate power sharing with East Africa.

The SADC Secretariat will facilitate the acceleration of implementation of the project within the context of the tripartite arrangement of the East African Community, COMESA and SADC.



- **Mozambique-Malawi Interconnection Project**

Financing from the World Bank is being considered for both sides of the project (Malawi and Mozambique). Work is expected to start in July 2009 on the Mozambican side. The Malawian side awaits parliamentary approval.

- **Zimbabwe-Zambia-Botswana-Namibia (ZIZABONA) Interconnection Project**

The project is progressing well. The member utilities appointed the SAPP CC as the Project Coordinator. An Inter Governmental MoU was drafted and is being finalised. This is intended to pave the way for a Joint Development Agreement for the project, to be signed by the Member utilities in order to drive the project implementation.

- **Mozambique Backbone Transmission Project**

Terms of Reference for Environmental Impact Assessment were done and are awaiting a no objection decision from the World Bank. The selection of project Consultants for feasibility studies (Technical, Economic, and Financial) is yet to be done.

- **Westcor Project**

There has been less movement on the Westcor project, highlighting the need to address the policy inconsistencies which forestall the resource mobilisation and project implementation that derailed the project in 2007–2008. The SADC Executive Secretary met His Excellency, the President of the DRC to discuss the project.

In an effort to accelerate implementation DRC has committed to submit a proposal to strengthen the leadership of the project to accelerate implementation.

A total of USD 5.6 billion is required to implement all the crucial Transmission Projects outlined below:

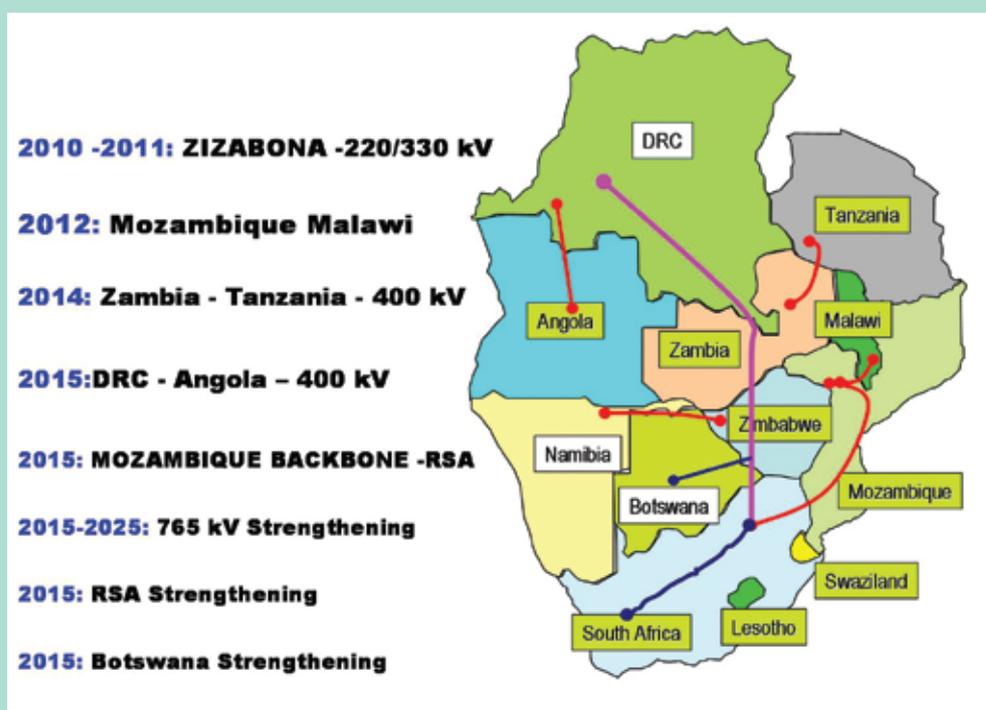


Figure 4: Regional Transmission Projects

Achievements

Legal, policy, regulatory harmonisation

Energy policies of most Member States in the Region provide for Electricity Supply Industry (ESI) reforms, which include establishment of Independent Regulators for the ESI. To date nine Member States have established Regulatory Agencies.

Regulators of ESI in the SADC Region

1. National Electricity Advisory Council (CNELEC) of *Mozambique*
2. Electricity Control Board (ECB) of *Namibia*
3. Energy Regulation Board (ERB) of *Zambia*
4. Energy & Water Utilities Regulatory Authority (EWURA) of *Tanzania*
5. Institute for Electricity Sector Regulation (IRSE) of *Angola*
6. Lesotho Electricity Authority of *Lesotho*
7. Malawi Energy Regulatory Authority (MERA) of *Malawi*
8. National Energy Regulator (NERSA) of *RSA*
9. Zimbabwe Electricity Regulatory Authority (ZERC) of *Zimbabwe*

At the Regional level, RERA endeavours to harmonise the regulatory frameworks and work towards the harmonisation of national electricity policy frameworks; accelerating the pace of ESI reforms to improve governance and performance; and develop and implement the necessary national policies and promulgate legislation that will ensure promotion of power conservation practices, implementation of efficient energy standards, possibility of phasing out the use of incandescent lights; and incentives for demand-side management.

Cost recovery

Generally, tariffs in the region have remained at sub-economic levels and have not been able to provide the right signals for optimum use of electricity and attraction of new investments. Similarly, the sub-economic tariffs have also resulted in adverse consumer behaviour with regard to inefficient use of electrical power.

SADC Council of Ministers directed that Member States should gradually migrate to cost-reflective tariffs on the basis of the agreed regional framework in order to attract Independent Power Producers to the Region.

SAPP with the assistance of the DBSA carried out a Tariff Study, designed as a limited scope fast-track assessment of the tariff setting principles and methods in a sample of SADC Member States in order to assess the extent to which wide variations in the tariff methodologies among the member countries may be acting as deterrents to regional electricity trade and overall investment in the power sector in the Region. To complement the study RERA has undertaken a review of the tariff setting principles for the region and proposed the migration path towards cost reflective tariffs. The study seeks to motivate cost reflective tariffs for timely implementation of new power projects in the region. Depending on the economic variables, average retail tariffs range from 2.5 – 11.0 US¢/kWh while the generation costs vary from 6 - 8 US¢/kWh for hydro and 22 US¢/kWh for gas.

Three countries, namely Namibia, Zambia and South Africa have to date developed migration paths towards sustainable tariffs.



Packaging of Projects

A number of project packaging and development facilities, such as the DBSA/AFD-PPFS, NEPAD-IPPF managed by the AfDB, KfW and FMO, have been created to support the preparation of regional infrastructure projects including power. SADC has taken advantage of these facilities to package its own power projects.

SADC is working closely with the DBSA to package power projects to bankable levels. Over the past decade, SADC has held two conferences aimed at attracting investments in the SADC power sector. The first conference was held in September of 2001 in Victoria Falls (Zimbabwe) and this was followed by a second conference, referred to as the Regional Electricity Investment Conference (REIC), held in Windhoek (Namibia) in September 2005.

On 21 November 2005 after the REIC, DBSA hosted the first SAPP and RERA Investor Roundtable meeting in South Africa. This followed the request made by SADC for the DBSA to coordinate financiers and investors in response to the 'Priority Power Projects' for the SADC region.

The REIC identified a list of 'Priority Generation and Transmission Power Projects' required to address the regional short- to long-term power requirements using an agreed criteria [See Table 3]. SADC then mandated both SAPP and RERA to address the diminishing generation supply situation in the region and secure funding for the projects so identified. Thereafter DBSA assisted SAPP and RERA to host an Investors' Roundtable in order to attract funding for the projects. To date many of these projects have not been implemented although some progress has been registered. Given the power crisis that is being experienced by the SADC region, where black-outs are occurring in almost all the power utilities, it has now become urgent to fast track project implementation. This requires that funding for the projects be secured. In 2007 the Energy Ministers requested SAPP and RERA to convene another investors' conference to get firm commitment from investors on critical projects, which are within 2 years of financial closure. The DBSA offered to support the process by engaging a consultant to compile Project Information Reports, which were presented at the SAPP Roundtable Investment Conference, held in Livingstone in July, 2009. The region has already agreed on a framework for scoring on prioritisation of energy projects as depicted in *table 3*.

Table 3: Project Selection Criteria

Item No	Key Aspects	Weight %	1 Weak	2 Below Standard	3 Standard	4 Above Standard	5 Best
1	Size of Project, MW	15	<50	50-200	200-500	500-1000	>1000
2	Levelised costs in Country (Including Transmission Lines), USD/MWh	25	>=50	43 - 49	36 - 42	29 -35	<=28
3	Transmission integration aspects/ stability/ technology	10	>750km	101-750km	50-100 km	<50km	Existing infrastructure, plug in

Item No	Key Aspects	Weight %	1 Weak	2 Below Standard	3 Standard	4 Above Standard	5 Best
4	Economic impact	10	Little impact, limited to small area	National impact only -jobs, >GDP	Mainly national impact - jobs, >GDP and some regional benefit	Balance between regional and national impact	Mainly regional impact - jobs, > GDP
5	Percentage off-take committed	15	<20	21 - 35	36 - 50	51 - 80	>80
6	Regional contribution as a % of project capacity (Including import replacement)	15	<20	21 - 35	36 - 50	51 - 80	>80
7	Number of participating member countries	10	1	1	2	3	3

Investors Roundtable

The SADC Investors Roundtable was held in Livingstone, Zambia from 15 to 17 July 2009. An outcome of the Roundtable was expression of interest and commitment from investors on the ten projects that are within two years of reaching financial closure. Other projects from the SAPP portfolio were also discussed. The conference also created a forum for stakeholders engage in identifying ways to clear barriers to project implementation. The ten projects are listed below:

- 1) Mozambique Transmission backbone
- 2) Benga Thermal Power project
- 3) Moatize Thermal Power project
- 4) Mpanda Nkuwa Hydro Power project
- 5) Kariba North Bank Extension
- 6) Itezhi tezhi Generation and Transmission Project
- 7) Kariba North Bank Extension
- 8) Zambia-Tanzania-Kenya Interconnector
- 9) ZIZABONA Transmission Project
- 10) Central Transmission Project



Financing arrangements and gaps

The SAPP plan confirms the benefits of coordinated investments in the Region's Power sector where cost savings of USD 48 billion are realised. At average cost of USD 1,700/kW, 33,000 MW are committed and have secured of approximately USD 36,000 billion.

Generation projects and the associated financial gaps

- Rehabilitation will add a total of 1,379 MW at a cost of USD 1 billion by 2008 - 2010. Financing gap of USD 86 million for 130 MW identified.
- Short-term generation projects will add 5,961 MW at a cost of USD 3.9 billion by 2008 - 2010. Financing gap of USD 85 million for 100 MW identified.
- Financing gap of USD 13.5 billion for 8,800 MW in the period 2011-2013 identified.
- Long-term generation will add a total of 44,000 MW at an estimated total cost of USD 41.5 billion by 2011 – 2025
- It is estimated that the regional power deficit will be overcome during the 2012/13 period including a 10% reserve margin should planned power projects be commissioned on schedule.

Challenges and constraints

Most of the power generation and transmission equipment is more than 20 years old and in dire need of rehabilitation and/or replacement. There has been no significant new investment into the ESI over the last two (2) decades, which has contributed immensely to poor delivery of some utilities.

Key among the constraints that have given rise to the slow pace of implementation of power projects is the inadequate project packaging capacity among Member States and relevant institutions to match bankable projects with appropriate financing.

National projects take priority over regional projects where the self sufficiency policies of individual Member States conflict with regional co-operation efforts.

There is a lack of coordination of the trans-boundary regional projects. This challenge is associated with the financing mechanism, premised on bilateral agreements with host countries. Appropriate structures need to be established and strengthened to drive the implementation of regional projects.

Summary Achievements Relating to Power Projects Development

Power Development

- SAPP Roundtable Investment Conference successfully held in Livingstone, Zambia in July 2009 with investors expressing support to the ten SADC bankable projects presented.
- SADC power generating plants commissioned in 2007 delivered 1 700 MW to the power pool, against a target of 2 251 MW, with the major new generation distributed as follows, 962 MW from Eskom, 260 MW from Angola and 100 MW from ZESA Hwange.
- SADC power generating plants commissioned in 2008 delivered 1 442 MW, against a target of 2 014 MW, with major supplies generated as follows; 962 MW from Eskom, 200 MW from Cahora Bassa (Mozambique), 300 MW from Zimbabwe ZESA Hwange and 100 MW from TANESCO (Tanzania).
- Zimbabwe-Zambia-Botswana-Namibia (ZIZABONA) Project launched to interconnect the four states and wheel power amongst each other within the Victoria Falls-Livingstone-Pandamatenga-Capriivi neighbourhood.
- Implementation of Itezhi-tezhi, Kafue Lower, Kariba North (Zambia), Hwange Rehabilitation (Zimbabwe), Mmamabula and Morupule Power Station projects (Botswana), Mpanda Uncua (Mozambique), Zambia-Tanzania-Kenya Inter-connector, Central Transmission Corridor for DRC-Zambia-Zimbabwe, Malawi-Mozambique Inter-connector, North-South Mozambique Backbone Inter-connector are on course.
- Revised SAPP Plan completed under World Bank financing, and defines the regional investment portfolio in power generation and transmission systems.
- SAPP Tariff Study completed and will guide Member States on implementation of the long standing dispute on cost reflective tariffs to facilitate and motivate investment.
- Regulatory oversight strengthened with more national regulators established in Member States, and harmonisation of regional regulatory oversight under the regional body, RERA, implemented comprehensively.
- SADC SAPP Group of Ambassadors in Brazil, UK and Germany concluded arrangements for the SADC power sector investment conferences in Rio de Janeiro, London and Berlin respectively.
- However, Westcor project has barely taken off and there is an urgent need for Westcor Heads of States to meet to lay the foundation for this project to move.



SADC Energy Sector at a glance

Challenges

1. Low and unsustainable electricity tariff
2. lack of capacity for project preparation and packaging
3. over-dependency on Eskom of South Africa to sign Power Purchase Agreements to secure project funding
4. Single buyer model that discourages other creditworthy customers from participating in PPAs
5. Complex project financing deals driven by lenders

Opportunities

1. Enormous resources-coal & hydro
2. ICP Support
3. Economics of scale for regional/ pooling of projects
4. Power project development facilities
5. Annual Investor's conference

Energy

Threats

1. Growth in power demand
2. MS prioritising national against regional projects
3. Global financial crisis-reduction in FDI
4. Political instability in resource areas
5. Climate change

Achievements

1. Pool Plan Developed
2. Tariff study completed
3. Legal & Institutional framework in place
4. DSM measures under implementation
5. Some utilities moving to cost reflective tariffs

Tourism

Background

Tourism has proved to be a key growth area on a global scale, and it is important that the SADC region is not left out of this niche market, which is a key engine of economic growth. The SADC region's tourism receipts and therefore contribution to GDP stand at 55% of the rest of the world. It is critical that we continue to explore more innovative ways of enhancing expenditure by our tourism sector.

The tourism industry in the region is poised to grow and attain 3% of the global market share of tourist arrivals by 2015. This target, when realised, could account for some 4 million jobs in SADC thereby advancing the goal of addressing poverty and assisting achievement of the MDGs, especially for women, youth and the disadvantaged communities. By that time, this sector is expected to contribute 3.5% to the region's GDP.

Robust tourism infrastructure and joint regional marketing are key to deepening integration and development through this sector.

The SADC Tourism programme is managed at the operational level by RETOSA, a SADC Subsidiary, which was granted autonomy of operation in 2008.

Scope of the Tourism Programme

The SADC Protocol on the Development of Tourism provides for the region to be aggressively promoted as a "single but multifaceted tourism destination capitalising on common strengths and highlighting individual Member State's unique tourism attractions", and to facilitate intra-regional travel through the "easing or removal of travel and VISA restrictions and harmonisation of immigration procedures."

Tourism Investment Promotion for infrastructure and products was identified as a priority intervention area in SADC's regional strategic plan, and is a strategic objective in NEPAD's Tourism Action Plan, which was approved by the African Union in 2004.

The tourism sector aims to ensure the involvement of small and micro-enterprises, local tourism communities, women and youth in the development of tourism in the region, and especially the promotion of Community Based Tourism which offers important opportunities for local communities.

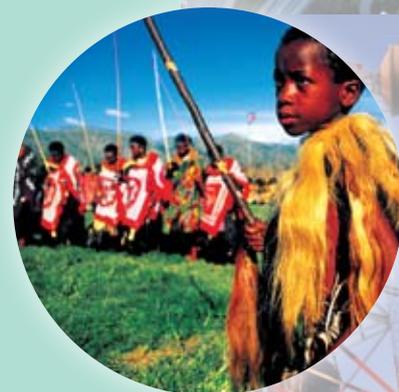
Highlights of Achievements in the Sector: Enabling Instruments

Among the targets for SADC Member States is the introduction of a universal visa, crafted along the same lines as the Schengen Visa, by 2009. The SADC Univisa system will facilitate intra-regional travel through the removal of visa restrictions and harmonisation of immigration procedures, and will accord tourists to the South Africa 2010 FIFA Soccer World Cup the opportunity to enter all SADC States on one visa.

It will also ease the cross-border movement of international tourists in general. The ongoing process of developing the Univisa is aimed at putting the framework in place by the 2010 Angola AFCON and Republic of South Africa (RSA) 2010 FIFA World Cup.

Encouraged by the Protocol on the Facilitation of Movement of Persons in SADC, signed in August 2005, at least seven countries in the region have signed bilateral agreements to waive visa requirements for each other's citizens.

Harmonisation of tourism and immigration policies, legislation and standards is on course and due be completed by the end of 2009.



3. Sectoral Programme Review

SADC Member States have demonstrated a prominent political will for establishing Trans-Frontier Conservation Areas (TFCAs) and a regional approach to biodiversity conservation and tourism development by entering into the bilateral and multilateral TFCA agreements, as well as by signing the Protocol on Wildlife Conservation and Law Enforcement.

This Protocol is the basic platform for regional co-operation and integration in wildlife conservation and management, and commits SADC Member States to "promote the conservation of the shared wildlife resources through the establishment of trans-frontier conservation areas."

A TFCA is defined in the Protocol as "the area or component of a large ecological region that straddles the boundaries of two or more countries encompassing one or more protected areas as well as multiple resources use areas."

While the establishment and development of TFCAs is the responsibility of the individual countries, RETOSA is well placed to market and promote them, under the Boundless Southern Africa programme.

SADC has also launched a 2010 Tourism Strategy, which encompasses joint tourism hosting and promotion during the South Africa 2010 FIFA World Cup. Under the auspices of RETOSA, TFCAs were selected as the anchor project for the 2010 Project. Currently, efforts are under way to develop infrastructure within the TFCAs that are part of the 2010 Programme Mainstream. A comprehensive programme of infrastructure development (accommodation and access) is ongoing within the identified 2010 Anchor Project TFCAs, spearheaded by South Africa.

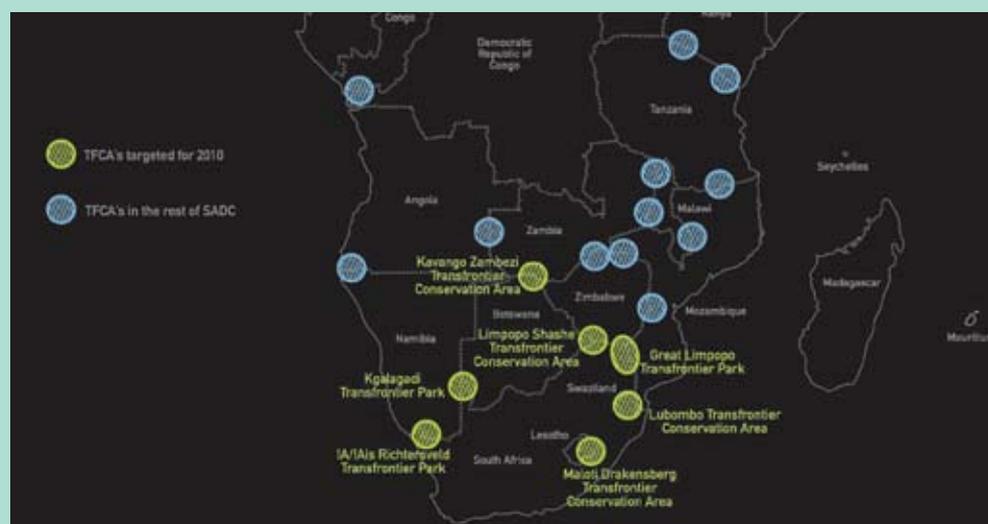


Fig 5: Map of TFCAs in SADC (<http://environment.gov.za>).

Summary Achievements in Tourism Sector

- 2010 RSA FIFA World Cup and Angola AFCON Cup Tourism Strategy complete and under implementation.
- SADC Univisa development is on course.
- SADC Visa Exemption is also on course.
- Major infrastructure development ongoing in designated 2010 TFCAs, championed by RSA, as TFCAs are the anchor projects for 2010 RSA and 2010 FIFA World Cup Soccer.

Transport

Scope of the programme

The SADC transport sector programme covers road transport, rail transport, ports, maritime and inland waterways, as well as air transport. The main areas of intervention in this area include transport infrastructure development, harmonisation of policies, capacity building, and transport and trade facilitation. Transport infrastructure development seeks to support the development of the Free Trade Area (2008), followed by a Customs Union (2010) and ultimately a Common Market (2015) in SADC.

The primary objectives of the SADC transport sector are:

- Integration of regional transport networks to be facilitated by the implementation of harmonised policies, legislation, institutions, rules, standards and procedures;
- Elimination or reduction of hindrances (non-tariff barriers) and impediments to the movement of persons, goods, and services thereby making SADC goods and services competitive; and
- Broad based public and private investment to develop, preserve, and improve viable strategic transport infrastructure.

This sector is working on a number of instruments that underpin the development of transport infrastructure and some of the key frameworks are outlined below, indicating progress made in each case.

Ports and Maritime

Port Security

Current international focus in maritime transport is on ship and port security. Some SADC ports have already undertaken security audits or are planning to have those undertaken soon. The Secretariat is developing a comprehensive regional plan aimed at improving port security in the Region. This process would be undertaken in close collaboration with the International Maritime Organisation (IMO) Office in Nairobi and the PMAESA in Mombasa as part of the International Convention on Safety of Life at Sea.

To this end the Secretariat, in collaboration with IMO and PMAESA, is organising a Regional Workshop on Maritime Security to be held in Mombasa Kenya in September 2009 aimed at formulation of a strategy and roadmap to enhance port security. The strategy will also include a programme to mobilise international collective action to combat and eliminate piracy as it is not only a threat to the industry and a violation of the provisions of the IMO, but risks spreading to other parts of the world.

The Shire Zambezi Waterway Project

Three participating Member States, namely Malawi, Mozambique and Zambia, have engaged in extensive consultations on the proposed development of the Shire Zambezi Waterway Project which, when implemented, would be a key lifeline for Malawi, Zambia and even Zimbabwe. To this end, the parties are in the process of finalising the Memorandum of Understanding to undertake a feasibility study, the outcome of which will determine the next steps.

Railways

Guidelines for Transportation of Hazardous Materials

The SADC Hazardous Materials Handbook is being revised taking into account the Convention on Civil Liability for Damage Caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels and amendments to the Convention, even though the Convention is not yet in force.



Review of SADC Railway Concessions

SADC Ministers responsible for Transport have, through a study, reviewed the management and operational arrangements and have recommended a review of the SADC Model Legislative Provisions on railways to address shortcomings identified by the study.

Infrastructure

There is a need to address provision of regional railway infrastructure in order to regain the role of rail in regional transport supply. Currently the surface transport supply in the region is inadequate and unbalanced. Transport is heavily skewed in favour of road, resulting in accelerated damage to road infrastructure, congestion at borders, high transport costs and delays in transport logistics. The programme will also need to address the deterioration resulting from deferred maintenance and construction of missing rail links and improve intermodal (road/rail) facilities.

Mozambique, Namibia and Angola have made significant progress in developing and rehabilitating rail infrastructure. In Mozambique, the rehabilitation of the Sena line from the port of Beira has made significant advances to reconnect with the Moatize coalfields. Namibia is extending the rail line north from Windhoek via Ondangwa to the border at Oshikango/Santa Clara. Angola, under "Angoferro" projects, is developing a programme in four stages that will rehabilitate the railway network, upgrade and modernise the infrastructure based on the SADC predominant "Cape Gauge", interconnect the three domestic systems and also interconnect directly, with all neighbouring countries (Namibia, Zambia, DR Congo, and Congo) and the Cabinda enclave.

Lesotho and South Africa continue to investigate the feasibility of constructing a railway line connecting the eastern and western part of Lesotho to the Transnet Freight Railways system.

Air Transport

Air Transport Safety

The SADC Secretariat coordinated and facilitated the implementation of Phase I of the COSCAP-SADC project which commenced in April 2008 with the recruitment of two Experts from the International Civil Aviation Organisation (ICAO) to undertake the tasks identified as critical to the process of ultimately establishing the regional System Approach to Safety Oversight (SASO).

The Secretariat is now coordinating the implementation of the Action Plan for the development of SADC Generic Regulations and Technical Procedures for Phase II as the basis for harmonisation of aviation safety standards in the SADC States.

The Secretariat is also working on identifying and securing alternative sources of funding particularly in order to continue with the implementation of Phase II of the COSCAP-SADC Project and to sustain the operations of the SASO (*once established*).

Aviation Security

The SADC Region is working towards the achievement of the following:

- Development and implementation a Regional Civil Aviation Security Programme to meet ICAO Standards in order to define the Regional **Aviation Security Policy**; and
- Development and implementation of a Regional Civil Aviation Security Quality Control Programme to constitute the inspectorate arm which would ensure compliance with the **Regional Civil Aviation Security Programme (CASP)**.

The CASP-SADC Project is being implemented in compliance with the requirements of the International Civil Aviation Organisation.



Air Transport Liberalisation

Achievements

The Secretariat has established Institutions to facilitate implementation of measures necessary for the liberalisation of air transport markets within COMESA, EAC and SADC as part of the AU "Yamoussoukro Decision" (YD) on Open Skies. The SADC Joint Competition Authority has been set up to oversee implementation by January 2010.

To assist SADC Member States on YD implementation, the Secretariat undertook a Study on "An Assessment of the Potential Impact of the Implementation of the Yamoussoukro Decision on Open Skies Policy in the SADC Region". The following challenges have been highlighted: capacity of regional institutions, connectivity and affordable fares, rotational legislation and mutual benefit.

SADC Secretariat with European Commission support has engaged a Consultancy which commenced work in June 2009 to undertake a study to establish the *"Status of implementation of YD within SADC"*

Upper Air Space Control Centre Project (UACC)

SADC has developed a project, the UACC, to provide a cost effective and efficient satellite based consolidated control centre.

Achievements

SADC undertook a feasibility study for the UACC Project, which was completed in July. The study concluded that the UACC is feasible and produced an Annex to the SADC Protocol on Transport, Communications and Meteorology, which will be signed by those Member States that are desirous of participating in the UACC.

Once the Annex to the Protocol has been signed and the participating States to the UACC Project have been identified, some of the key issues to be addressed include determining the best location of UACC Headquarters Company, the essential set of institutional arrangements that will need to be established for the successful development, implementation and operation of the UACC and developing an effective and practical plan for transitioning upper and lower (as appropriate) airspace operations from the current service provider(s) to the UACC.

Following the decision of SADC Ministers responsible for Transport, the Secretariat is coordinating a review of the revenues and costs of the UACC, legal opinion on the Draft Annex to the Protocol and a framework for joint implementation of the project through the COMESA-EAC, SADC Tripartite framework.

Road Transport

Achievements

Road User Charges

In order to underpin the SADC transport corridors initiative, the region is developing and implementing a revised and harmonised road user charges regime in SADC by 2010. Consensus has been reached on consolidation of charges to be levied from road users including enacting the necessary legislation to facilitate consolidation, level of charges to be levied from road users based on agreed formula and modalities on regional collection of cross-border road user charges – the coupon system was chosen as the preferred mode.

Harmonisation of Vehicle Equipment, Dimensions and Loads on Vehicles

SADC is implementing a programme to develop harmonised guidelines and regional standards for vehicle equipment, dimensions and loads. The programme has been approved by Ministers responsible for transport and an Action Plan is being developed.

Vehicle Overload Control

The Vehicle Overload Control programme aims at developing harmonised standards and a regulatory regime to protect regional roads and bridges from damage caused by overloading.

The SADC Secretariat has been collaborating with COMESA, and the Southern Africa Office of the United Nations Economic Commission for Africa (UNECA) working under the Regional Economic Communities Transport Coordinating Committee established under the Sub-Saharan Africa Transport Policy Programme to harmonise vehicle overload control policies, standards and procedures.

Following the decision of Ministers, the Secretariat is now developing an Action Plan for implementation.

Multilateral Road Transport Agreement (MRTA)

The SADC Regional Indicative Strategic Development Plan inter alia aims at liberalisation of regional transport markets as well as harmonisation of transport rules, standards and policies. The Secretariat is developing a MRTA to replace the multiplicity of bilateral agreements among and between Member States as an instrument to facilitate the liberalisation and deregulation of the regional transport market.

Revision of Regional Trunk Road Network (RTRN)

The region has developed a Regional Trunk Road Network which is revised annually. The RTRN constitutes the basis for development of road networks along approved SADC corridors.

Kazungula Bridge Project

The Kazungula Border Post is located between Botswana and Zambia across Zambezi River. Crossing the Zambezi River is currently done by a ferry moving about 30 trucks per day, which is slow and accident prone contributing to delays and high transport costs. In this regard, the river crossing is a significant barrier to the movement of goods in Southern Africa. Virtually all traffic between South Africa, Botswana, Mozambique, Zimbabwe, Zambia, Congo, Tanzania and Malawi depends on this specific transport corridor.

The construction of the Kazungula Bridge would enhance transport operations along the regional north-south corridor, which links the mineral-rich regions of Zambia and the Democratic Republic of the Congo to Botswana and the port of Durban in South Africa. In addition, the construction of the Kazungula Bridge will promote local industry in Zambia, Zimbabwe and Botswana. The reduction of local transportation costs will lead to the reduction of consumer prices of agricultural products, as well as the development of socio-economic activities at community level. This increase in local economic activity can result in an increase of tax revenues for the local government. In light of its importance, the SADC has made Kazungula Bridge Project as a Flagship Project for the region.

The Japan International Cooperation Agency (JICA) commissioned a study by Nippon Koei and Oriental Consultant. The study, published in March 2001, confirmed the technical and economic feasibility the project. The African Development Bank is currently sponsoring studies for economic feasibility and detailed design of the Kazungula Bridge, Border Control Facilities, and Tolling Facilities conducted by Consultant EgisBceom International, which is expected to be concluded by the end of 2009. It is expected that actual construction will commence by 2010 at a total estimated cost of USD 82 million, with an additional US\$ 30 million required for the border control facilities."

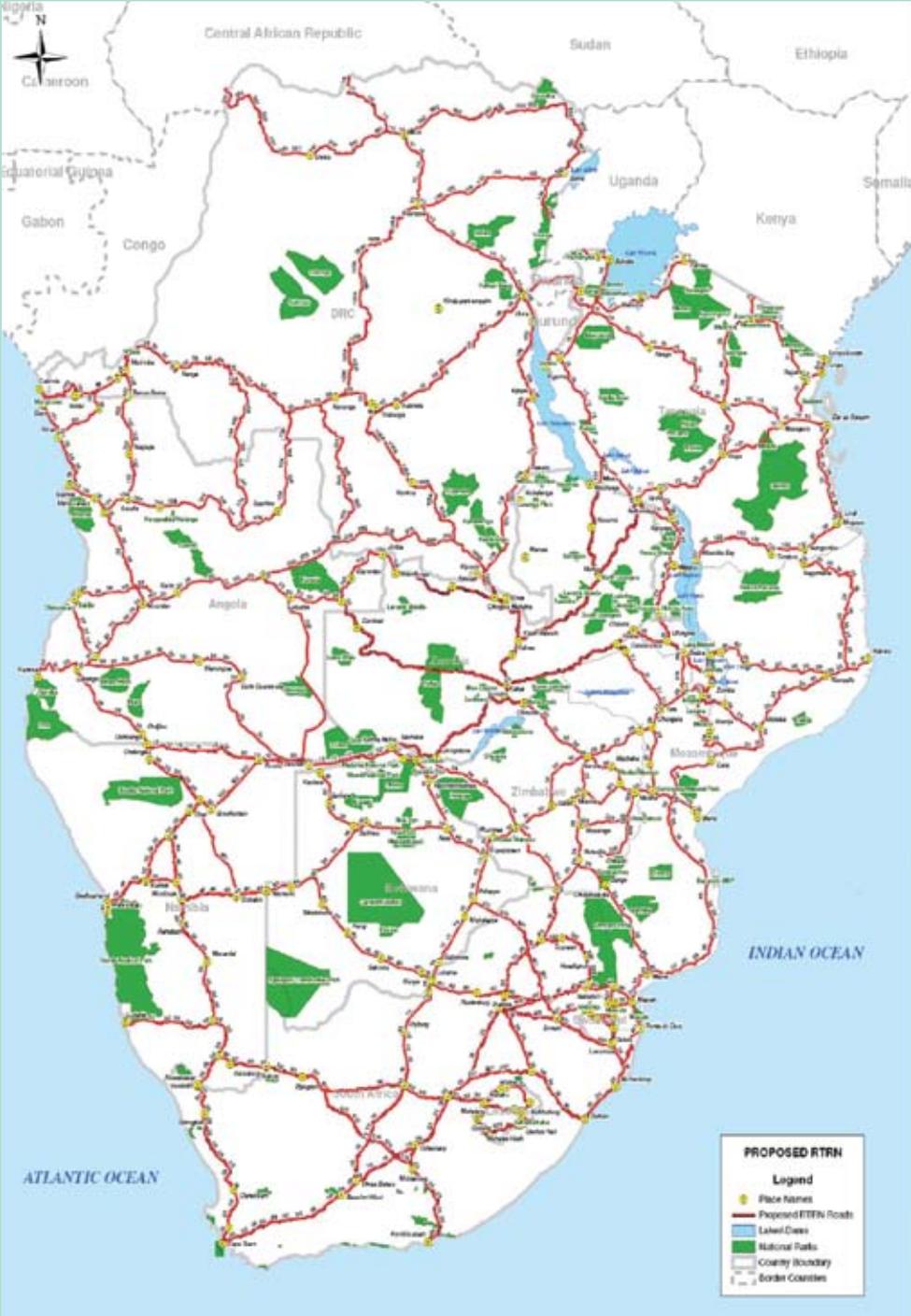


Fig 6: Revised SADC RTRN 2009



Third Party Vehicle Insurance

The programme aims to harmonise the three main systems of third party liability insurance in use for cross-border transport in the SADC region (COMESA Yellow Card, Fuel Levy and Border Gate payment). Most of the work was done in 1999 when efforts were made to extend the COMESA Yellow Card scheme to all the countries of Southern and Eastern Africa. A study has been proposed and is aimed at benefitting the SADC region in general but specifically the following Member States: Angola, Botswana, DR Congo, Lesotho, Mozambique, Namibia, South Africa, and Swaziland. The study is expected to benefit road transport authorities and operators, the regional insurance industry, importers and exporters. Due to funding constraints the study will be conducted in-house through a Tasks Force.

In 2008, SADC adopted a Corridor Strategy and Guidelines for a coordinated regional approach to the implementation of the SADC Corridors. The strategic objectives of the programme are to

- Increase the rate of regional and national economic growth and development
- Enhance levels of economic integration of the SADC economies
- Promote greater complementarities in economic strategies between SADC states in order to ensure competitive structures of production in the region
- Increase international competitiveness of SADC export goods especially for landlocked countries and zones
- Enhance intra-regional trade in order to address historic imbalances
- Mobilise flows of foreign direct investments

Promote more equitable spatial location of industries and agri-industries

SADC Transport Corridors Development Programme

Scope of programme

The development of a regional transport network is rooted in the SADC Protocol on Transport, Communications and Meteorology which encourages Member States to develop integrated transport corridors to facilitate trade and promote regional economic integration. In the context of surface transport, the routes entail linkage of key SADC ports through key road and rail networks to the hinterland landlocked countries. The Secretariat is working on regaining the momentum which was lost during the transition from SATCC to a centralised SADC Secretariat. The corridors programme has been progressively reviewed and adapted to the new challenges of regional market integration as SADC develops **from a Free Trade Area** to a Customs Union and finally a Common Monetary Area. In this process transport corridors still remain as core implementation frameworks and enablers for regional trade and the free movement of goods and persons.

The current focus of the programme are the three "Is"; **Instruments** – development and signing of governance legal instruments; **Institutions** – Establishment of national and regional institutions for the joint management and coordination of corridor operations, policy and regulatory harmonisation and infrastructure development; and **Infrastructure** – joint planning, implementation and resource mobilisation for corridor infrastructure rehabilitation, modernisation and expansion.



Fig 7: SADC Transport Corridors map

The institutional arrangement for managing corridor operations and implementing projects is as below:

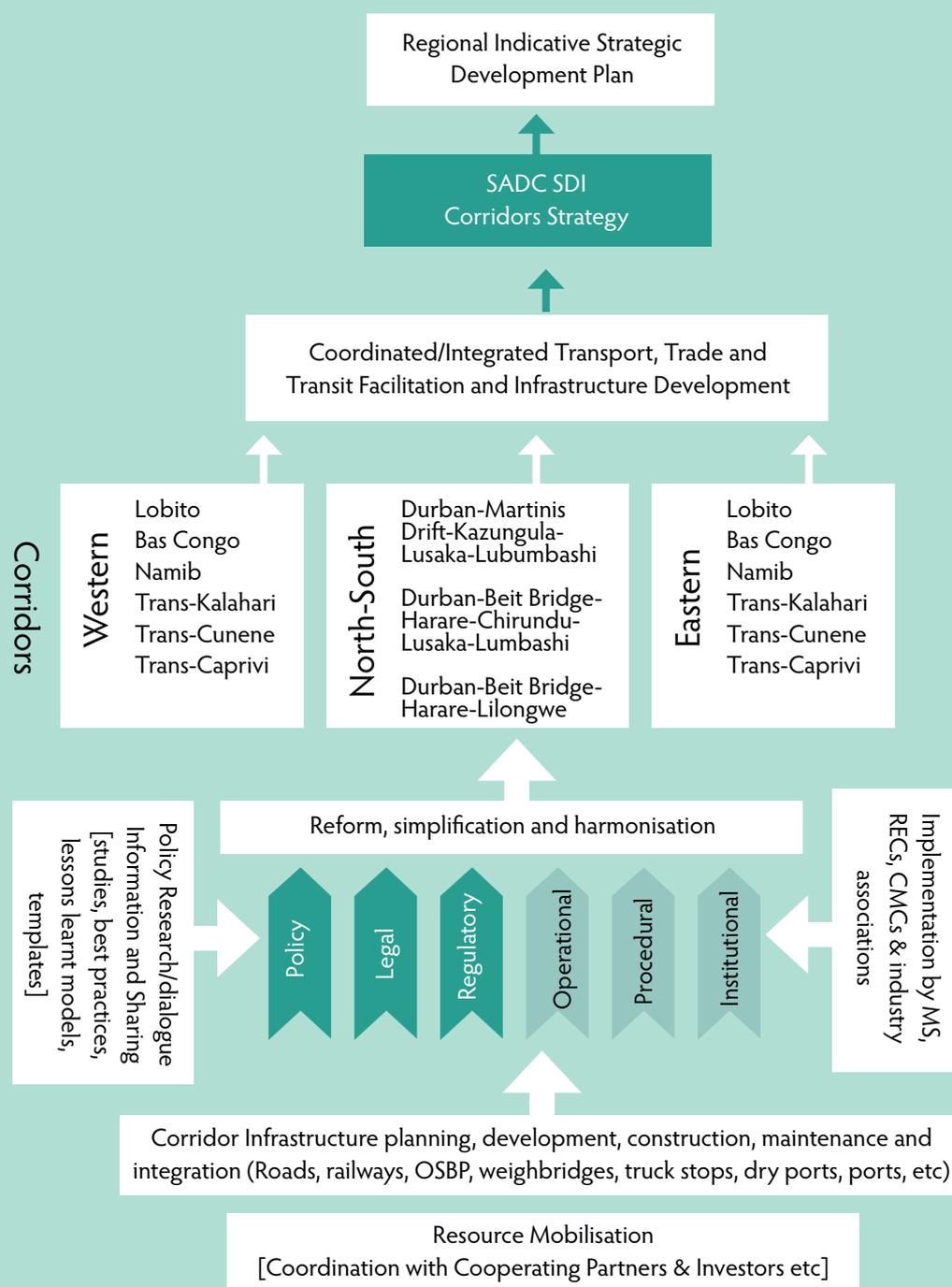


Fig 8: Transport Corridors-Institutional structures and processes

Achievements

The Secretariat made the following progress in the implementation of the SADC Corridors Development Programme.

Instruments

- Agreement on proposed legal framework and institutions for governance coordination management of the North-South Corridor;

- Development of a draft MoU for the Trans-Cunene Corridor to be signed by Namibia, Zambia and DRC; and
- All corridor Member States on the Dar es Salaam Corridor have signed the constitution.

Institutions

- Phase I of the COSCAP-SADC project commenced in April 2008 with the recruitment of the two ICAO-Experts to assess the extent of rectification, by Member States, of deficiencies identified by the ICAO Universal Safety Oversight Audit Programmes conducted since 1999;
- Resuscitated all the Surface Transport Sub sectoral Committees and their first meetings were held during 2008. This provided much needed oversight and guidance for development and implementation of the transport programme and reinstated ownership of the programme in the hands of the most appropriate drivers and champions;
- Operationalisation of the Infrastructure PCU in the SADC Secretariat following recruitment of Experts as follows:
 - Infrastructure Advisor funded by the African Development Bank who commenced his duties in April 2009 as part of the Infrastructure Project Coordinating Unit in the Secretariat ; and
 - Corridor Coordination Adviser funded by the Regional Trade Facilitation Programme (DFID) who commenced his duties in February 2009, pursuant to recommendations of the SADC Corridor Development and Spatial Development Initiative Study; The Advisor also serves on the Infrastructure PCU;
- Convening of Corridors Workshops aimed at establishing corridor management committees and programme of action for the respective corridors;
- Support to corridor management institutions (CMCs) in implementing corridor infrastructure projects. CMCs are operational on the TKC, Maputo, Dar es Salaam and Central Transport Corridors; and
- Recruitment of a full time Executive Director for the DCC Secretariat.

Infrastructure

- Updating the RTRN and reaching agreement on its adoption by all Member States;
- Further development of engineering, economic and environmental designs for the Kazungula Bridge project;
- Finalisation of the development of Chirundu as a One-Stop Border Post (OSBP) between Zimbabwe and Zambia on the NSC. Chirundu will officially be opened as the first OSBP in SADC in September 2009;
- Feasibility studies for establishing OSBP at the following border crossings have been completed or are ongoing: Mamuno/Trans-Kalahari (Botswana/Namibia), Katima Mlilo/Wenela (Zambia/Namibia), Kazungula (Botswana/Zambia), Oshikango/Santa Clara (Namibia/Angola), Nacala Corridor (Mozambique, Malawi, Zambia); and
- Agreement was reached by stakeholders to establish an OSBP at Beitbridge (South Africa/Zimbabwe).





Aerial view of Beitbridge, Zimbabwe side - the busiest border crossing in SADC. Please note south bound traffic queuing on the highway outside the border post precinct.

Summary Achievements in Transport Sector

- SADC Corridor Infrastructure Development Strategy approved by Ministers in May 2008.
- The regional strategy for corridors is being implemented under the 3 "I"s, that is, Instruments (*establishment of MoUS up to head of State level*), Institutions (*establishment of Member States cross border structures to implement Corridors*) and Infrastructure (*focusing on infrastructure development in corridors*).

Western Corridors Cluster (Trans-Kalahari, Trans-Cunene, Trans-Capriivi, Namibe, Lobito (Benguela), Malanje)

- Lobito Corridor is on course for completion in 2015.
- Trans-Kunene Corridor in Namibia extended rail line from Tsumeb to Ondangwa and will proceed to Oshikango border town with Angola (Angola is yet to meet its side of the bargain by extending Namib-Lubango Line to Onjiva border town to integrate with the Trans-Namib system).
- Walvis Bay, Trans-Kalahari and Trans-Capriivi corridors have undertaken major road and bridge construction.
- The Secretariat is facilitating the participation of Angola and DRC in corridor programmes.
- Lack of MoUs and cross-border Corridor development structures are slowing down progress.

Eastern Corridors Cluster (Central, Dar es Salaam, Mtwara, Nacala, Shire-Zambezi, Beira and Maputo Corridors)

- Corridor Institution establishment on the Dar es Salaam Corridor. Full time Executive Director appointed and Secretariat now fully operational.

- Project Packaging advanced on the Mtwara Corridor assisted by SADC and ADB.
- Nacala Corridor Rehabilitation Programme launched with the support of ADB. SADC Secretariat is the Implementing Agency.
- Rehabilitation of the Beira-Sena Line completed up to Moatize and the project is to proceed into Malawi's portion through the RITES Rail Concession.
- Study on the Shire-Zambezi Project feasibility to proceed funded by COMESA and coordinated by SADC. Awaiting finalisation of a MoU involving Malawi, Mozambique and Zambia.
- Maputo Development Corridor was completed and implemented with oversight at Heads of State level, and remains a model for SADC.
- Focus is to shift to the Lebombo Development Corridor (Mozambique-Swaziland-RSA) and the Lesotho Railway Project Facilitation.
- North-South Corridor Investment Corridor convened at Heads of State Level in Lusaka, Zambia, and USD 1.2 billion raised to kick start the project, and includes the feasibility study and design of Kazungula Bridge (ongoing), consensus and roadmap on removal of bottlenecks at Beit Bridge, launch of Chirundu One-Stop Border Post in September 2009, adoption of the Zimbabwe-Zambia Legal framework model for the Chirundu One-Stop Border Post by other Member States.
- Ongoing freight optimisation study to determine infrastructure upgrades and design at major border crossings linking South Africa to neighbouring states.

Air Transport

- Gradual Liberalisation of the Skies under the *Yamoussoukro Decision (YD)* on course especially involving RSA-Botswana (up to 10 frequencies per day) RSA-Namibia, (up to 12 frequencies per day), RSA-Zimbabwe (up to 11 frequencies per day), RSA-Zambia (up to 8 frequencies per day), and RSA Mozambique (up to 7 frequencies per day). Elsewhere, the frequencies are disappointingly low.
- Luanda-Johannesburg route remain highly suffocated by bi-lateral **air** service agreement restrictions and it is desirable to open up.

Zambia has taken the lead on the YD implementation by granting *Fifth Freedom* to Ethiopian Airlines (Lilongwe-Lusaka), Kenya Airways (Lilongwe-Lusaka), Air Namibia (Lusaka-Johannesburg-Lusaka), Air Zimbabwe (Lusaka-Lubumbasha-Lusaka).

- Intense Airport expansion is ongoing at OR Tambo and Cape-Town (RSA) as well as at Sir Seretse Khama, and Francistown, and plans under way to expand and modernise Maun and Kasane Airports (Botswana).
- Proposed relocation of the Luanda and Durban Airports is on course.
- Conceptual design of the SADC Upper Air Space Control Centre (UACC) and funding of structure completed.



SADC Transport at glance

Challenges

1. Backlog in infrastructure supply and maintenance.
2. Inter REC co-operation
3. Integration of national and regional plans
4. Legal, regulatory and policy harmonisation
5. Reconstruction and reintegration for post civil war states - Angola, DRC

Opportunities

1. Support infrastructure investments for 2010
2. Relatively integrated networks
3. SATCC legacy of co-operation
4. ICP and private sector investments
5. Lagging countries can leapfrog technological changes

Transport

Threats

1. Global recession and fall in infrastructure funding
2. Modal Imbalance in transport - rail capacity inadequate
3. Security
4. Climate change
5. Global pandemics

Achievements

1. Development of corridor institutions
2. Launch of a One-Stop Border Post at Chirundu
3. YD implementation
4. USD 1.2 billion raised at NSC donor conference
5. Expansion modernisation programmes - ports, road, rail and airports completed

Communications and ICT Sector

Scope of programme

Considerable technological and market developments over the past two decades have resulted in significant change in the assumptions and practices that previously influenced policy debates and the roll out of services in the SADC region. The reform of the Communications and ICT Sector which have resulted in changes in legislative and regulatory frameworks has been experienced by most if not all of the SADC Member States. Member States have seen the liberalisation of the sector and the introduction of competition leading to more private sector entities becoming players in the market segments. This development and the accompanying growth in mobile subscribers has resulted in a shift from the traditional focus on fixed line incumbents for service delivery to mobile and wireless services, which has in turn resulted in significant implications for the design and delivery of Universal Access policies and goals.

This is in line with the sector objective which is to take advantage of international technological developments and to develop national telecommunications networks for the provision of reliable effective and affordable telecommunications services in order to ensure adequate high quality and efficient services; achieve universal service and to enhance interconnectivity in the region and globally.

Institutional and Regulatory Frameworks

There are four SADC implementing agencies under the Telecommunications/ICT sector namely the CRASA hosted by the Republic of Botswana, SATA hosted in the Republic of Mozambique, SAPOA hosted by South Africa and SAPRA hosted by the Republic of Malawi. These implementing agencies have been set up under article 13:13 of the SADC Protocol on Transport Communications and Meteorology.

Convergence of ICTs Technological Platforms

There is a need for SADC to embrace the fact that the convergence of ICT technological platforms is accelerating the ability to use the single network to provide a range of services, for different networks to provide similar services and to enable the modification of existing networks to provide a wide range of new services.

ICT Based Competitive Advantages for SADC

There is now, more than ever, greater opportunity for SADC to gain competitive advantage over other regions in the global arena given that the SADC Region has already embarked on the process of introducing effective legal and regulatory frameworks that can create the necessary enabling environment to support public confidence and ensure stability, transparency, competition, investment, innovation and growth in the Information and Communications Sector.

ICT Policy Harmonisation

The SADC Region continued to pursue its harmonisation of ICT Policies and Regulations agenda. The region has been formulating the best practice guidelines on Communications and ICT regulations to be adopted by its Members in the bid to coordinate the regulatory reforms in order to allow the region to achieve greater credibility and thereby encourage inward foreign investment to the SADC region.

In addition, various tools and platforms have been provided to the SADC ICT regulators to enhance their capacity to deliver within their respective domestic markets from the "natural monopolies" to liberalised markets.



Addressing ICT Harmonisation Challenges

The increasingly innovative technologies and services being developed have brought with them challenges to the way ICT regulators are functioning. The need for updating the ICT regulator's knowledge on trends in regulatory issues became pertinent. In order to meet the challenge, the region has instituted regional ICT Forums that meet on a quarterly basis to debate ICT issues and concerns. Some of the thematic areas for the forum discussions are:

- Regional Alliance in ICT Infrastructure Development;
- Migration towards all IP; and
- Next Generation Wireless Technologies.

SADC convened a stakeholders' workshop to develop a policy and regulatory framework and the modalities for the *"SADC Home and Away Roaming"*. A Regional Alliance Task Team comprising representatives of the SADC Secretariat, Mobile operators in the SADC region, CRASA, SATA, GSM Association (Africa) and the SADC Parliamentary Forum as an observer was set up to ensure that the SADC Home and Away becomes a reality.

Communications and ICT Infrastructure Development

Achievements

The aim is to develop Telecommunications and ICT networks and services of a regional nature that are responsive to the diverse needs of commerce and industry in support of the regional socio-economic development programmes. To achieve this mission, SATA is implementing several projects and initiatives through its Membership, including human capacity development programmes.

SADC Regional Information Infrastructure Project

The implementation of the SADC Region Information Infrastructure (SRII) was divided into three stages of short-, medium- and long-term duration. This has progressed very well indeed with short-term (digitalisation of transmission links) and medium-term (expansion of the digitalised transmission links) being completed.

Long-term implementation, comprising *all fibre regional transmission highways*, is 80% complete but has some Capacity and Technology constraints. To address this, the SATA Chief Executive Officers formed a working group, the Backhaul Working Group, which looks at implementing the identified *SATA Minimum Network*. Once completed, this will interconnect all members and connect each member to the various undersea cable systems including the Eastern Africa Submarine System (EASSy), which is a state of the art broadband optic fibre system. This minimum network is part of the long-term SRII Project implementation. The table below depicts the current SRII missing links.

Table 4: Missing Links (Source SATA Secretariat)

Country	Missing links (Optic Fibre)
Angola	To Namibia (to Namibia's border) To the EASSy Cable through Zambia
Botswana	Via Zimbabwe to Beira (Mozambique) Via Zambia to Dar-Es-Salaam (Tanzania)
Malawi	To Beira (Mozambique) To Dar-Es-Salaam (Tanzania)
Zambia	To Beira via Zimbabwe To Dar-Es-Salaam via Nakonde/Tunduma
Zimbabwe	To Beira (Mozambique) To Mtunzini (South Africa)
DRC	To Luanda via Cabinda To Lusaka via Lubumbashi

The map below shows the schematic map of the SR11 and its connectivity with undersea EASSy Project.



Fig 9: EASSy Project

An updated feasibility study, to facilitate the implementation of the Southern Africa Backhaul Transmission missing links, was funded by the African Development Bank (AfDB) and started on 13 May 2009. The final report is expected to be ready by the end of August 2009. PricewaterhouseCoopers LLP, contracted by SATA, is carrying out the update feasibility study.



The **International Telecommunications Union** is funding the implementation of the second Phase of the SRII Project including the Internet Exchange Points project (IXP). The project components include switching, billing, network management and IP-based systems. The design phase of the project was completed in 2006 and is being used as a guideline by SATA in the implementation and Next Generation Networks (NGN) migration towards all IP platforms. The details are provided in *figure 10*, below.

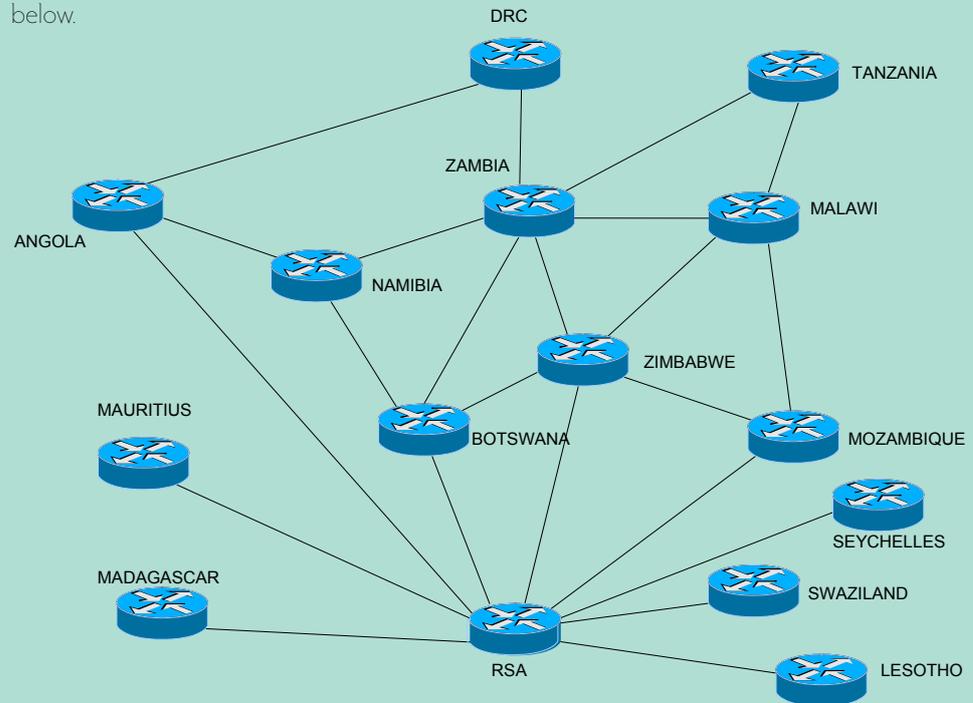


Fig 10: SRII Phase II – IN/IP Platform

EASSy Submarine Cable System

Background

EASSy is a two fibre pair system and is based on “collapsed ring” architecture, which provides a high degree of robustness, high reliability and low outage time. *Figure 11* below depicts the cable system and the landing stations.

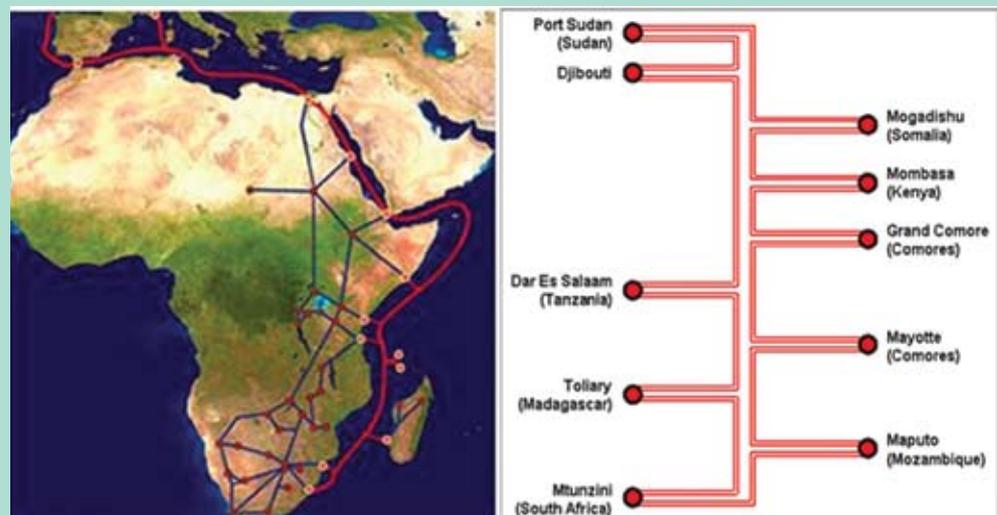


Fig 11: the EASSy cable system and landing stations

EASSy Ownership Structure and Implementation

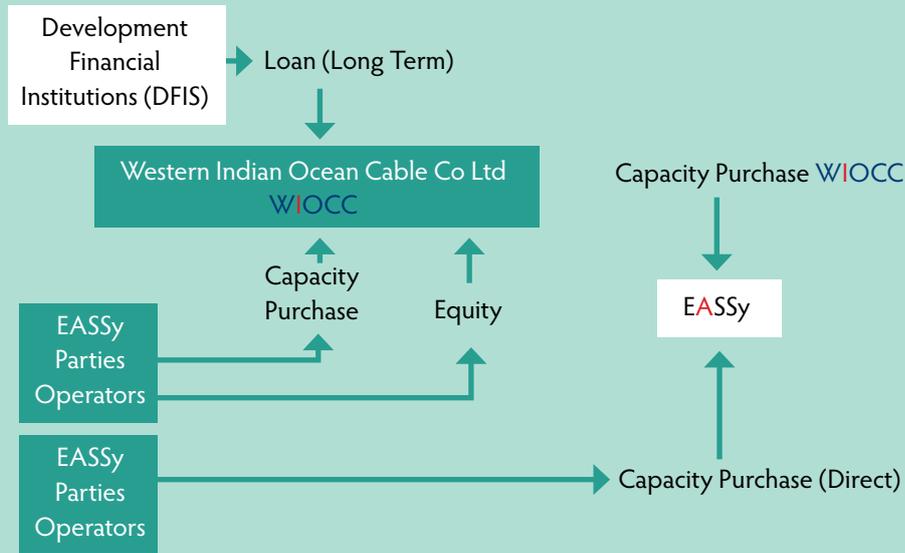


Fig 12: the EASSy ownership structure

The sub-marine connectivity is supplemented by terrestrial optic fibre backhaul networks that reach into the African interior to interconnect 10 land-locked countries and provide alternative routing between landing stations – ensuring that customer traffic still reaches its destination even in the event of a catastrophic failure.

Technical information

System length:	10,800 km
Landings:	10
Transmission:	SDH
Technology:	Dense Wavelength Division Multiplexing (DWDM), Direct Optical Amplification
Topology:	2 fibre pair system configured as a collapsed ring Proposed ultimate capacity per fibre pair: 68 wavelengths per pair at 10 Gbps
Total capacity of	1.4 Tbps
System design life:	25 years
Supplier:	Alcatel-Lucent
Cost:	USD 260 million

The sub-marine solution is based on an Alcatel-Lucent 1620 Light Manager next-generation DWDM sub-marine platform, and also includes cables and sub-marine repeaters. Branching units will ensure direct connectivity to landing stations where Alcatel-Lucent will deploy its 1678 Metro Core Connect for terrestrial interconnection. The Alcatel-Lucent 1350 management system will supervise all the equipment supplied.

Considerable progress has been made in relation to the project and the sub-marine cable is expected to be ready for service in June 2010. The Backhails Terrestrial Optic Fibre Networks (Southern Africa Backhaul System and Northern Africa Backhaul System) should be ready six (6) months before EASSy is ready for service.



NEPAD ICT Broadband Infrastructure for Eastern and Southern Africa

The implementation of the NEPAD ICT Broadband Infrastructure is governed by the Protocol on ICT Policy and Regulatory Framework also known as the Kigali Protocol. Ten (10) SADC Member States signed the Protocol prior to the November 2006 deadline and out of the 10 signatories 6 have ratified the Protocol. Member States who have ratified the Protocol are Lesotho, Malawi, Mauritius, South Africa, Tanzania and Zimbabwe.

A meeting of Ministers who are signatories to the Kigali Protocol met in 2008 and agreed to rename the sub-marine segment Uhurunet and the terrestrial segment Umojanet. The Baharicom Development Company (BDC), the company responsible for the development of Uhurunet sub-marine cable, was registered in Mauritius during 2008. BDC has held discussions with several sub-marine cable developers with a view to collaborating with them in the development of Uhurunet. They include: Seacom and TEAMS on the East Coast, and Main One and ACE on the West Coast.

A Detailed Feasibility Study for the Eastern and Southern Africa part of Umojanet was undertaken and completed in April 2009. The Study covered the following countries: Angola, Botswana, Burundi, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Republic, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe. The DFS will form the basis of a Project Information Memorandum that will be used to solicit investment in Umojanet.

Summary Achievements in Communications and ICT Sector

- EASSy undersea cable nearly complete.
- SADC Regional Information Infrastructure (inter State fibre connectivity cable) now 80% complete.
- Other under-sea cables completed are WACS, GL 01, ACE and Main One (West Coast), as well as Seacom, Teams, Sat-3-Safe (East Coast).
- NEPAD Broadband Network reaching final stages of conceptual design and road map.

SADC Communications and ICT Sector at a Glance

Challenges

1. Rapid pace of technological change
2. Convergence of ICT
3. Infrastructure delivery against changing regulatory framework
4. High cost of communication service provision
5. Bridging the digital divide - rich vs poor, urban vs rural

Opportunities

1. Growth in mobile communication & wireless technologies
2. Active participation by member states implementing agencies
3. Recognition of critical role of ICT as enabler for socio-economic development
4. Private sector participation
5. Support from International cooperating partners

ICT

Threats

1. Rapid technological change and technical obsolescence
2. Emergence of international low cost operators by-passing national network and licensing framework
3. Data and cyber security
4. Internet governance - management of the commons

Achievements

1. Harmonised legislative & regulatory framework
2. Launch of "e-SADC" initiative which seeks to harness ICT for socio-economic development
3. Increased private sector participation in the market
4. SADC plan for migration from analogue to digital by 2013
5. Increased private sector participation as a result of fully liberalised market





Institutional Framework

The SADC Region has developed an elaborate institutional structure to support the implementation of SADC programmes including the water sector. **Figure 14** shows the institutions involved in the SADC water sector. The institutional framework brings together Member States and ICPs under the coordination of the SADC Secretariat. The ICPs coordinate their input to the water programme through the Water Strategy Reference Group (WSRG). The Water Resources Technical Committee (WRTC) brings together the Technical Directors of Water Departments from Member States to give direction to the Water Division of the SADC Secretariat. Steering Committees are established under the supervision of the WRTC for specific projects and programmes. Implementation of projects and programmes is largely left to Member States' institutions coordinated by the SADC Secretariat under the guidance of the Project Steering Committees.

As part of the institutional framework the water sector works with River Basin Organisations (RBOs).

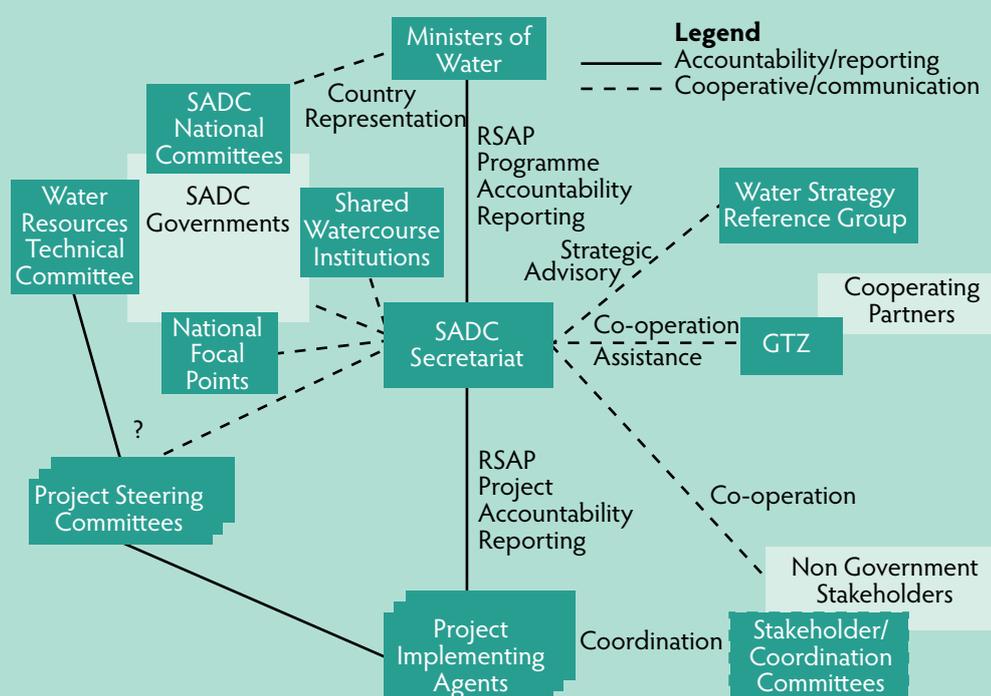


Fig 14: Institutions involved in the SADC water sector

The Roles of River Basin Organisations

RBOs are provided for by the SADC Protocol on Shared Water Courses under article 2(a), Article 5, 1(b) and 3. They can be established as commissions, water authorities, or boards as may be determined by the respective parties. Their main role is to:

- facilitate coordinated, judicious, and sustainable utilisation of shared water courses;
- act as advisory bodies and joint programme implementation agencies on behalf of Member States;
- develop joint Strategic Action Plans/programmes and projects for implementation along shared water courses; and
- offer a platform for discussions, information sharing and conflict prevention at river basin level.

Table 5: SADC Trans-boundary River Basins

River Basin	SADC Riparian States	River Basin	SADC Riparian States
1. Congo	Angola D R Congo Tanzania Zambia	8. Ruvuma	Mozambique Tanzania
2. Zambezi	Angola Botswana Malawi Mozambique Namibia Tanzania Zambia Zimbabwe	9. Limpopo	Botswana Mozambique South Africa Zimbabwe
3. Cunene	Angola Namibia	10. Save	Mozambique Zimbabwe
4. Cuvelai	Angola Namibia	11. Buzi	Mozambique Zimbabwe
5. Okavango	Angola Botswana Namibia	12. Pungwe	Mozambique Zimbabwe
6. Umbelesi	Swaziland Mozambique	13. Inkomati	Mozambique South Africa Swaziland
7. Orange-Senqu	Botswana Lesotho Namibia South Africa	14. Maputo	Mozambique South Africa Swaziland
		15. Nile	Tanzania

Achievements

The ongoing institutional reforms of the RBOs have facilitated the provision of structures to manage the river basins including the implementation of projects of economic gain. Problems continue to be encountered with regard to signature, ratification and accession to the instruments, thereby delaying the reform processes.



Fig 16: Massingir Dam, Mozambique

The Regional Water Infrastructure Programme is one of the core cluster programmes under RSAP-2. The programme is aimed at the promotion of the development of strategic water infrastructure including rehabilitation and expansion of existing facilities, creation of new facilities, regional programme for water supply and sanitation, and pre-feasibility studies for strategic regional infrastructure projects. The implementation of the programme is intimately linked and complementary to other development measures being adopted by SADC to deal with poverty. The programme covers regional water infrastructure projects aimed at providing water for:

- Irrigation to increase food production and to ensure food security;
- Energy security;
- Water supply and sanitation; and
- The mitigation of the impacts of Climate Change (floods and drought).

The SADC regional water infrastructure programme comprises the following

- capacity building;
- project preparation; and
- Implementation components.

The **capacity building** aspect builds on the Resolutions and Action Plan of the African Ministerial Conference on Hydropower and Sustainable Development held in Johannesburg in 2007. It involves creating awareness at political level to encourage major strategic water infrastructure development. It also involves the development of training manuals on various subjects taken from priority key issues of the UNEP Dams and Development Compendium of relevant practices for improved decision making

on dams and their alternatives. The training manuals are targeted at decision makers, professionals and civil society. The overall objective of the capacity building component is to ensure that major strategic water infrastructure is developed in an economically, environmentally and socially sound manner.

The *project preparation* component is aimed at assisting Member States to develop water infrastructure projects into bankable states. It addresses the major bottleneck in the implementation of water infrastructure projects by addressing key upstream activities in water infrastructure project preparation including an enabling environment, feasibility studies and transaction support.

Achievements

In 2005 about 134 water infrastructure projects were submitted by Member States for consideration under the regional water infrastructure programme. The projects were analysed and categorised into the following main groups; (i) Priority Strategic Infrastructure Projects, (ii) Macro Strategic Water Infrastructure Development Projects and (iii) Integrated Water Resources Management (IWRM) Demonstration Projects. Projects are prioritised under each of the regional water infrastructure programme categories through approved criteria that take into account the project contribution to the SADC regional goals (poverty reduction) development drivers (gender, environmental impacts, etc.) and specific project criteria (project viability).

Priority Strategic Water Infrastructure Projects

These are projects that can be implemented within a short time frame (3-5 years) and require relatively less capital investment (less than Euro 10 million). The top 10 projects under this group are shown in *Table 6*.

Table 6: Top Ranked Projects

Top Ranked Projects		
Rank	Country	Description
1	Namibia	Rehabilitation of the Nordoewer Irrigation Scheme – Orange River – a joint project of Namibia and RSA
2	Mozambique	Construction of Movene Dam
3	Zambia	Construction of 29 Med/Small Earth dams
4	Mozambique	Construction of 3 Small Dams in Sofala Province
5	Botswana	Construction of Manyana Dam on the Kolobeng River at Manyana
6	Mozambique	Rehab/Expansion of Water Supply System of Manica Town – estimate 80% relevant of \$0.93 + \$1.91
7	DR Congo	Rehabilitation of irrigation infrastructure – Kinshasa, Bas Congo, Katanga, Equateur prov. Estimated 70% relevant
8	Angola	Lubango water supply Phases 1 & 2 – estimated 60% relevant
9	Angola	WSAS Namibe Phases 1 & 2 – estimated 70% relevant
10	Zambia	Lake Tanganyika Management Planning Project

Macro Strategic Water Infrastructure Projects

These projects are recognised as strategic but are too large, complex and costly to be implemented within Phase 1. They include programmes with a broad geographical focus within Member States (that is a number of individual projects at different localities) and contain components that are not essentially



3. Sectoral Programme Review

hard water infrastructure (for example feasibility studies, management and capacity building). However the preparatory work required to bring such projects to implementation can be considered as part of the project portfolio. The top priority projects under this group are shown in **Table 7**.

Table 7: Top 9 Macro Water Infrastructure Projects

Top Ranked Projects		
Rank	Country	Description
1	Zambia	Kafue Gorge Dam Lower Project
2	Mozambique	Construction of Moamba-Major dam
3	Malawi	National Water Infrastructure Project development
4	Zimbabwe	Batoka Gorge Hydroelectric Scheme
5	Lesotho	Metolong Dam Detailed Design and Construction
6	Lesotho	Lowlands Water Supply Scheme
7	Zimbabwe	Bulawayo-Matebeleland-Zambezi Water Supply Project
8	Mozambique	Construction of the Large Bue Maria Dam
9	Tanzania	Ruhudi Hydropower Project

IWRM Demonstration Projects

These are projects that are not necessarily hard water infrastructure projects but are necessary to demonstrate and promote the IWRM which is crucial for the implementation of hard water infrastructure projects. They include small projects such as the establishment and rehabilitation of small irrigation, water supply and sanitation schemes as well as catchment management projects. They are targeted at poor communities in rural areas and help alleviate poverty. **Table 8** shows IWRM demonstration projects already implemented in the SADC Region.

All the five of the IWRM Demonstration projects have been implemented in the respective SADC Member States through the support of Danida. Lessons learned from the implementation of these projects are currently being documented in order to inform the next phase of the programme. Currently the second phase of the IWRM Demonstration projects is at the planning phase.

Table 8: IWRM demonstration projects

Country	Project
Zambia	IWRM and Food Security for the Kafue River Basin
Swaziland	Lavumisa Irrigation Development Projects
Malawi	IWRM and Improved Rural Livelihoods Project for Dzimphutsi area
Mozambique	Improving Livelihoods in Lower Limpopo Catchment Status of implementation and achievements
Namibia	Sustainable IWRM in the Omaruru-Lower Swakop Basin

Regional Water Infrastructure Pilot Projects

Phase 1 of RSWIDP was launched with the implementation of Pilot Projects during the first three (3) years of the programme. Pilot Projects are selected from those projects that are already bankable and ready for implementation, and can be completed within a relatively short time frame to build

momentum for the RSWIDP particularly from financiers/donors. Projects eligible for selection as RSWIDP Projects must have at least reached the feasibility stage with documentation covering financial, technical, environmental, social aspects, etc.). The Kunene Trans-boundary Water Supply and Sanitation Project between Namibia and Angola is the first Pilot project under RSWIDP. The project has been implemented by the Task Force Calueque, a subcommittee of the Permanent Joint Technical Commission on the Kunene River Basin between Angola and Namibia. The project is being carried out with the financial support of the German Government (KfW and GTZ), with contributions from the Angolan and Namibian Governments. The current project cost is about 12 million Euros. Other projects considered for piloting include the Construction of the Movene Dam in Mozambique and the Rehabilitation of the Nordoewer Irrigation Scheme between Namibia and South Africa.

Regional Water Infrastructure Programme Implementation Framework

An RSWIDP Implementation Framework has since been developed by the Programme Manager that consists of:

- Development of an RSWIDP Management manual;
- Marketing and Promotion Strategy and Implementation Plan for RSWIDP;
- Development of water infrastructure project preparation guidelines;
- Mobilisation of Financial Resources for RSWIDP Project Preparation and Implementation; and
- Capacity Building for RSWIDP Project Preparation and implementation.

Capacity Building

The capacity building programme for regional water infrastructure is implemented by SADC and EAC with the support of the German Government (InWEnt) in association with UNEP and GWP-SA. The first training manual on Environmental Management Plans has been completed and will be piloted in July 2009. Other training manuals currently under development include a training manual on Socio-economic and Benefit Sharing and a training manual on Options Assessment.

Funding for RSWIDP

Funding for RSWIDP is required for Programme Management, Project Preparation and Implementation. Currently funding for Programme Management is provided by the German Government (GTZ) supporting the position of the RSWIDP Programme Manager in the SADC Secretariat as well as the soft components of the programme. Funding for individual RSWIDP projects is the responsibility of each Member State. Funding can be arranged through bilateral and multilateral sources from international or regional financial institutions or International Cooperating Partners/Donors. SADC will assist in facilitating financing arrangements for both project preparation and implementation. Currently SADC is engaged in discussions with the German Government (KfW) for assistance in establishing a small water supply and sanitation fund for the SADC region.

Way Forward

SADC will continue with the rollout of the RSWIDP Implementation Framework forecasting on the capacity building and project preparation components. The rollout of the training manual on Environmental Management Plans will commence with a pilot training session in July 2009. Once completed, the training manuals on Socio-economic Aspects and Benefit Sharing as well as the training manual on Options Assessments will also be piloted and rolled out during the latter part of 2009. Meanwhile awareness creation among political figures in various fora such as the SADC Parliamentary Forum will also take place in 2009.



3. Sectoral Programme Review

SADC will continue to seek financial support for project preparation. Project development support material in the form of a project preparation and finance guide will be developed. Funding to develop an implementation manual for the regional water infrastructure programme that includes the development of a marketing, monitoring and evaluation programme will be intensified. SADC will also continue to support Member States to move projects into bankable states. Funding for pilot projects will be aggressively sought by SADC as well as ensuring the implementation of ongoing pilot projects such as the Kunene Trans-boundary Water Supply and Sanitation Project between Namibia and Angola. Once a reasonable portfolio of water infrastructure projects with adequate information is available SADC plans to market the projects at a donor/financier conference. SADC will continue to seek financial support for the establishment of a fund for small water supply and sanitation projects in the region.

Summary Achievements in Water Sector

- Five Integrated Water Resources Management Demonstration Projects have been implemented in Malawi, Mozambique, Namibia, Swaziland and Zambia focusing on poverty alleviation, through support from DANIDA and the Secretariat is putting together lessons learned on these projects to be shared as best practice with other Member States.
- Ondjiva-Oshikago Trans-boundary Water Supply Project on the course for Angola and Namibia, funded by KfW.
- Packaging of Projects under GTZ financed SADC strategies Water infrastructure Development programme ongoing.
- SADC Hydrological Cycle Observation System equipment installation ongoing.

SADC Water Sector at a Glance

Challenges

1. Disparity between available water infrastructure & the potential for development
2. Capacity to develop, implement and operate and maintain infrastructure systems
3. Inadequately prepared projects in terms of bank ability and project details
4. Funding for both project development and implementation
5. Need to balance the development drive with adequate environment, social and economic benefits

Opportunities

1. The strong policy frameworks and enabling environment for infrastructure development
2. Acceptance that infrastructure is needed in Africa by major potential investors (World Bank, ADB etc.)
3. Legal framework (the Protocol) policy and strategy for trans-boundary water management
4. High untapped potential for water infrastructure development in SADC

Water

Threats

1. Delays in concluding some of the agreements governing shared water courses
2. Unwillingness of countries to cooperate on Joint Infrastructure Project
3. Reduction in Political will and support
4. Climate change
5. Global financial crisis

Achievements

1. Enabling environment for trans-boundary projects created
2. Kunene trans-boundary water supply and sanitation pilot project initiated
3. Community based high impact poverty alleviation small infrastructure project concluded and lessons learned documented
4. Macro Projects have progressed to design and construction
5. Institutional capacity of trans-boundary water management institutions being strengthened.



4. The State of Infrastructure Integration in SADC

One of the key objectives of the SADC regional infrastructure development programme is to provide a regionally integrated, cost effective and efficient regional infrastructure network. This report provides a barometer for assessing the state and pace of regional integration of the various infrastructure networks and systems.

The current state of interstate physical connectivity and integrated management of infrastructure can be summarised based on the following:

- Degree and extent of integration of the SADC transport networks and systems;
- Degree and extent of integration of Communications and ICT networks in SADC;
- Degree and level of joint planning and management of shared water courses;
- Extent of network connectivity of electrical power utilities on a regional basis and degree of market integration and power trade;
- Extent of integration of tourism markets;
- Level of harmonised regulatory and legislative reforms in the various sectors; and
- Level of harmonisation of infrastructure, regulatory and legislative frameworks.

Transport Sector Integration

Integration of air services is fairly comprehensive in the region and continues to improve, as both capacity and frequencies continue to increase in the region. However certain sectors are still encumbered with irregular services and others still experience constrained air freight services. Of major concern is the observation that passengers generally have to travel through one major hub in order to reach other SADC destinations, extra-regional destinations and intercontinental destinations. This has resulted in poor connectivity, high fares and inconvenience to air travellers. Sustained implementation of the YD on Open Skies and granting of Fifth Freedom to non designated carriers is poised to improve connectivity of regional and other air services. The regulatory environment is being strengthened from time to time.

Whilst the road network is at a fair level of integration, the realisation of cross border facilitation in the one-stop context is still in its infancy. The Regional Trunk Road Network has identified missing links which the corridor programme is addressing as indicated in the foregoing sector reports. Whilst railways are reasonably integrated, deferred maintenance and inefficient services constitute a major challenge. Missing links in DRC and Angola are receiving attention, whilst Namibia has recently completed its link to Ondangwa for potential connectivity through Oshikango/Ondjiva to the Namib line. Several other rail link proposals are on the cards linking Botswana (with Zambia), Zimbabwe (with Zambia), Malawi (with Zambia) and Zambia (with Angola). There is need to support current initiatives for inland waterways (e.g. Shire Zambezi Waterway) and modernisation of existing waterways which also bridge road and rail missing links.

Communications, ICT and Postal Networks Integration

Communications and ICT infrastructure inter-state network connectivity continues to improve, with the SADC network (SRIL) now standing at 80% complete, up from 70% last year. Cellular communication has become the fastest growing multi-purpose medium of information access. The under-sea EASSy Cable due to be completed in June, 2010 should facilitate SADC regional connectivity with the rest of the world. The postal sector continues to strengthen its regional network, against a backdrop of

couriers' competition, and will soon launch a road postal network. Through CRASA and SAPRA as key ICT and postal regulators, regulatory oversight continues to be strengthened to underpin ongoing infrastructure development and create an enabling environment for the purpose, as part of the implementation of the provisions of the protocol.

Integrated Management of Shared Water Courses

Through SADC Secretariat facilitation, 6 of the 15 identified water courses have been successfully transformed into trans-boundary River Basin Organisations and have successfully implemented the agreed regulatory and legislative reforms. Following the establishment of these RBOs, they have commenced implementing projects of economic gain. Coordinated flood management has been strengthened in the basins, especially the Zambezi. The rest are at varying stages of formation with SADC Secretariat's facilitation.

Integration of Electrical Power Networks

In order to promote development of least cost power generation and power trading, the region has made strides in linking its various national generating plants through inter-connectors and transmission systems.

To date, nine power utilities on the Southern African mainland are interconnected **except Angola and Tanzania**. Some degree of integration of power networks involving Botswana, DRC, Lesotho, Malawi, Mozambique, South Africa, Swaziland, Zimbabwe and Zambia, has been accomplished. This inter-connectivity has facilitated the establishment of the SAPP Short Term Energy Market which is soon to migrate to a Competitive Network. The impending implementation of the ZIZABONA, the Tanzania-Zambia-Kenya, Malawi-Mozambique and Tanzania-Mozambique inter-connectors and strengthening some of the existing ones, will complete the desired integration and thereafter facilitate energy trading through wheeling agreements amongst trading States. These are being developed through the signing of the Inter-Governmental MoU involving the participating Member States as well as Inter-Utility MoU, among the utilities. Regulatory reforms are still in the process of being introduced while the strengthening of RERA, which will drive these reforms, remains a priority.

Integration of Regional Tourism Markets

The basis for tourism integration is the development of Trans-Frontier Conservation Areas (TFCAs) and the multi-destination tourism approach in terms of the regional joint marketing principle. However the delays in implementation of the Univisa arrangement, and harmonisation of immigration laws, regulations and procedures remains a major challenge to deepening regional integration, and political will is required for early implementation of the Univisa concept.

Investment Gaps

The financial needs in infrastructure development are enormous and growing. There is a need to both preserve and expand the infrastructure as current demand exceeds supply and access is seriously very low. Often the costs of infrastructural renewal and expansion exceed the capacity of SADC member States, compelling them to borrow. Currently, the SADC member States have problems generating and mobilising resources for infrastructural renewal because foreign loans and grants for the construction of new infrastructure and maintenance are becoming very hard to secure and inadequate to meet all the SADC development priorities.



Investment Requirements to Address the Prevailing Infrastructure Gap in the SADC Region

In order to address the gap in the short to long term, SADC requires the following financial resources, on a sector by sector basis:

Table 9: Financial resources

Regional Trunk Road Network (RTRN):	USD 8.00 billion
Inter-Regional Railway Network (IRRN):	USD 18.00 billion
Ports and Inland Waterways Development:	USD 18.00 billion
Power Infrastructure: (SAPP Plan)	USD 47.00 billion
ICT, Communications and Postals: (SRII & SAPOA Plan)	USD 4.00 billion
Water Infrastructure Priority Projects: (SWIDP)	USD 5.00 billion
Total Estimate:	USD 100.00 billion

5. Cross Cutting Issues

In the course of implementing the regional agenda for infrastructure development, the region has recognised the importance of factoring in and addressing cross-cutting issues such as ICP, PPP, Gender, HIV/AIDS, environmental sustainability (climate change), the current global financial crisis, as well as monitoring and evaluation. Cross cutting issues affect the planning and implementation process and hence the results. Some cross cutting issues are designed to avoid and or mitigate the impacts of infrastructure projects on the community and the environment. To this end, these cross cutting issues are an inherent component of the wider programme on infrastructure development.

Project Funding

There are a variety of sources of funds for the development of infrastructure projects. These depend to a large extent on the nature, scope and scale of the particular project.

In the past, large scale infrastructure projects have been undertaken by the public sector, although the private sector is now increasingly involved. Funding sources now include the following:

- National Governments;
- Financial institutions;
- International Banks;
- Export credit agencies;
- Multilateral financial institutions;
- Official Development assistance; and
- Development Finance institutions.

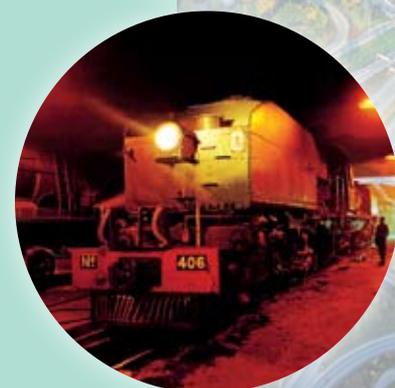
International Cooperating Partners (ICPs)

The Directorate of Infrastructure and Services has had cordial relations and good co-operation with ICPs who continue to support SADC programmes. *Table 10* reflects these ICPs.

Table 10: International Cooperating Partners

Sector	ICPs	Thematic Leader	Group
Energy	Norway; Germany; Sweden; WB; DBSA; Finland; USAID/SAGCH; DFID; EU; Belgium (BTC); KfW; Netherlands	Norway	
ICT	EU; International Telecommunications Union; UNECA	To be determined	
Transport	AfDB; DFID/RTFP; EU; JICA; USAID/SAGCH; WB	DFID	
Water	AfDB; SIDA; DANIDA; NORAD; UNEP; UNDP; WB; KfW; EU; USAID; AfDB-African Water Facility; Netherlands; FAO; France –GEF; DFID	GTZ	

In order to improve communication and coordination with ICPs, the SADC has set up thematic infrastructure groups of SADC ICPs, to spearhead and coordinate infrastructure development



5. Cross Cutting Issues

in particular sectors of infrastructure. Thematic groups in the Water, Transport and Energy Sectors have been established and have facilitated ICP complementarities, coordination and joint funding of infrastructure development.

The SADC is developing a SADC Regional Infrastructure Development Master Plan, that will require not only ICP funding, but also capacity building with regard to its implementation. Co-operation is also required, to facilitate the establishment or strengthening of implementation agencies like regulatory associations, operator associations and River Basin Organisations. Such institutions would implement projects on behalf of SADC within an agreed framework. Capacity building within national institutions within the context of institutional development is also a priority area. Collaboration with ICPs within this framework will be solicited.

Private Sector Participation

The region has recognised the importance of the private sector coming on board to provide regional infrastructure as well as operate infrastructure within, among others, the Public Private Partnership (PPP) context or with the private sector going it alone. The RISDP provides for strong private sector participation as espoused by the requisite protocols.

In order to attract private sector participation in infrastructure, the region recognised the urgent need to create an appropriate enabling legal, policy and regulatory environment to facilitate such partnerships. In this regard, the region has put into place a programme aimed at addressing the provision of an adequate institutional, regulatory and broad policy framework, at the sectoral, national and regional levels, which serves as a signal to all stakeholders and the private sector, that the region is committed and ready to embrace the private sector in the trans-boundary infrastructure development domain.

Gender

SADC Secretariat has taken seriously the regional objective of promoting gender equality in all spheres of life, including the provision of infrastructure. Notable progress has been made with respect to gender mainstreaming in infrastructure programmes and projects as they relate to, among others, the following:

- Ensuring that infrastructure provision addresses the needs of women who share the bulk of the burden due to infrastructure deficiencies, especially in the rural areas;
- Training of women in careers involving infrastructure to enable them to attain decision-making positions in the sector which has hitherto been a preserve of men, where successes have been made in aviation and communications; and
- Promotion of economic empowerment of women and communities through promotion of community and women-based projects in the areas of tourism, communications and transport.

HIV and AIDS mainstreaming

HIV and AIDS have become prevalent in locations of infrastructure development projects as well as the domain of logistics and transportation corridors, where mobility has become a major catalyst to the spread of HIV and AIDS.

SADC's response is to mainstream measures to address the HIV and AIDS challenge in the design, implementation and monitoring of the infrastructure projects as follows:

- Corridor Transport and Trade Facilitation Projects that are coordinated by SADC, especially the busy border posts, are mainstreaming HIV and AIDS programmes, which include awareness and prevention, through dissemination of information to truckers, cross-border traders and border post communities;

- Clinics to treat HIV and AIDS related ailments along pilot corridors; and
- Provision of facilities for testing and counselling at key centres where infrastructure development projects are being undertaken and at key community centres along corridors, which include towns and border towns.

Environment

Infrastructure development, such as the construction of airports, dams, and bridges inevitably produce impact on the environment. In practice, therefore, it must be accepted that modifications to the natural environment are an inevitable result of attempts to achieve social and economic progress, alleviate poverty and improve human welfare. By its very nature, infrastructure is an agent of change which can bring both benefit and negative results to the existing balance between people and the environment.

In the past, the attention of many SADC countries was focused almost exclusively on the potential benefits from these new or improved facilities. In contrast, the resulting environmental problems have received little attention, largely because they were considered to be either unimportant or too expensive a price to paid for development. More recently, all SADC governments have become increasingly conscious of the impact of uncontrolled development on the environment and recognise that, in the long term, environmental conservation and economic development are not only compatible but interdependent and mutually reinforcing. This has raised a number of issues which must now be faced in an attempt to create a symbiotic balance between much needed developments on the one hand and environmental care on the other. In this regard, the SADC is promoting the establishment of appropriate policy guidelines and the importance of the role of environmental impact assessments in infrastructure provision.

Climate Change

Climate change and variability poses a significant risk to infrastructure and its owners, managers and long-term operators, particularly in the key sectors of energy, transport, and telecommunications. The main risks associated with climate change are the potential for increased frequency of extreme daily rainfall events and temperature, affecting the capacity, operations and maintenance of energy, transport, telecommunications and water infrastructure. Acceleration of the degradation of materials and structural integrity of key infrastructure may occur through increased ground movement and changes in groundwater level. Increased temperatures could result in increased demand for water and increase in frequency, generating an increase in the peak demand for electricity for air conditioning at the same time reducing the efficiency of transmission due to the impact of transmission line conductivity. Increased temperature and solar radiation could reduce the life of asphalt on road surfaces and airport tarmacs. Increased temperature stresses the steel in bridges and rail tracks through expansion and increased movement. Increased temperature causes expansion of concrete joints, protective cladding, coatings and sealants on bridges and airport infrastructure. Increased frequency and intensity of extreme wind, lightning and bushfire events may cause significant damage to above-ground fixed line transmission infrastructure and service in the energy and telecommunication sectors. These challenges are compounded by the long lifespan of infrastructure and the limitations associated with infrastructure once built.

Most infrastructure is typically designed, built and maintained on the premise that future climate will be similar to that experienced in the past. Yet current indications show that increasing concentrations of atmospheric greenhouse gases are already influencing change in climatic conditions and will continue to do so in the future. In the SADC, planning is generally based on the flawed static climate change scenario, where there is little information available on the likely impacts of climate change on infrastructure. While this information gap remains, it is likely that key decisions will continue to be made on the assumption that historical climate patterns will continue. Unfortunately, every time this occurs, the climate risk profile of the region's infrastructure is increased. There is considerable benefit for the region



in assessing the likely impacts of climate change on its infrastructure. In order to drive action it will be necessary to effectively communicate the findings of such an assessment, and convert these into a set of engineering, legal and financial actions. This will help ensure that infrastructure owners and managers plan for the effects of climate change, throughout the infrastructure lifecycle of design, infrastructure maintenance and renewal.

Recognition of the risks associated with climate change is a valuable first step towards better planning of new infrastructure investments and mitigating potential damage to existing infrastructure. In light of this, the SADC Secretariat is currently preparing a multi-sectoral regional climate adaptation strategy which will guide and form a basis for the development of sectoral climate change adaptation strategies.

Global Financial Crisis and Investment Climate

The most serious global financial crisis since the creation of the United Nations is the current major threat to the region's ability to mobilise resources and provide the necessary financing to meet the internationally agreed development goals including the MDGs. While the crisis in the global financial system threatens both developed and developing countries alike, the greatest impact will be in developing countries and the SADC region is no exception.

The crisis will definitely cause reductions in financing for infrastructure development. Measures to combat and mitigate the effects of the crisis must include additional support for developing countries to ensure their participation in the international trading system. There is a need to continue infrastructure financing as a strategy to mitigate the impacts of the recession and to address the current gaps between infrastructure demand and supply.

Cost Recovery

There is general consensus in the SADC on the need to move away from supply-dominated approaches to more demand-driven approaches in which users choose a certain level of service, based on their willingness to pay for that service. This willingness to pay is expressed through initial contributions to investment costs and payment of user fees to recover operating and maintenance costs. In this regard, the SADC will continue to promote innovative programmes for cost recovery in the infrastructure sector that balance the desire to deliver infrastructure services through market arrangements with the goal of ensuring infrastructure access to the region and better utilisation of existing infrastructure and facilities.

Policy, Legal and Regulatory Harmonisation

The SADC has made efforts to develop and secure the sustainability of its infrastructure facilities. Due to lack of harmonisation of the policy and regulatory frameworks, the growth and efficiency have not met expectations. Most policies for regulating and operating infrastructural facilities and services in SADC have failed to create an environment that is conducive to private sector participation in most infrastructural areas. The result has been in general, inadequate and inefficient supply, and poor standards and service quality leading to higher than average transaction costs. This adds to the costs of doing business and the price of traded goods and makes the region uncompetitive both within itself and the rest of the world.

Institutional/ownership

In order to accelerate infrastructure development, a comprehensive programme on institutional development and capacity building at the level of Member States and implementing agencies is required, with the view to improving the enabling environment for investment. Once developed, the SADC Regional Infrastructure Development Master Plan can provide a regional priority-based road map and blue print for development of infrastructure based on the Spatial Development Initiative

model, as well as the corridor based approach, focusing on the envisaged plans for transport, energy, ICTs and water infrastructure development portfolios.

Measures that emphasise the sharing of knowledge and best practices, training, and the building of appropriate capacity at national and regional level will be vigorously pursued. The strengthening of regional associations such as SARA, ASANRA, CRASA, etc. and the establishment of centres of excellence shall form part of the set priorities.

Monitoring and Environment

The SADC has made efforts to enhance its effectiveness in implementation of infrastructure programmes and projects. However, the Monitoring and Evaluation systems are still weak in providing relevant and detailed information that can be used as a basis for improving strategies, programmes and projects and likewise for measuring and assessing performance in order to more effectively manage developmental results. In this regard, the SADC will intensify its focus on outcomes by shifting towards better measurement of performance and more systematic monitoring, evaluation and reporting. Most importantly, such activities will generate an organisational culture of learning, transparency and accountability.

Integrated Planning of National and Regional Projects

In order to ensure effective implementation of regional infrastructure, it is critical that all regional infrastructure development initiatives be incorporated into the national development plans, and be budgeted accordingly at the national level. Regional project implementation should be mainstreamed into the national project implementation framework. The challenge is for Member States to *“think regionally while acting nationally”*.

The plight of Member States which have worked tirelessly to restore peace in their countries, should be recognised, and it is in this spirit that the region has to come up with an innovative post-conflict infrastructure reconstruction programme for Angola, DRC and to some extent Mozambique. There is no doubt that, through this initiative, which provides the minimum connectivity of our States in the form of transport, communications, energy, trans-boundary water and tourism infrastructure, our region will be propelled to unprecedented heights. What is critical is that the spirit of consensus, that has been the hallmark of our regional covenants, shall prevail as we implement trans-boundary infrastructure projects. Priority should be accorded to the Member States that have recently come out of protracted civil strife. The region will, therefore, as a matter of urgency, draw up an *“Emergency Customised Action Plan”* to address the infrastructure gaps in Angola, DRC and to some extent, in Mozambique.

Attracting Investment in Infrastructure

In order to attract investment in infrastructure, there are a number of conditions that need to be met, and these include:

- Conducive enabling environment for business to operate on a sustainable basis (policy, legal, regulatory and institutional framework);
- Fair competition as espoused by the requisite Competition Law and Regulatory framework;
- Acceptable rate of return, strengthened by a business like cost recovery regime;
- Availability of a huge and accessible regional or continental market (the proposed SADC Common Market is a clear basis for investment attraction);
- Appropriate sustainable economic policies that promote investment in infrastructure;
- Effective Public/Private Sector dialogue for attainment of a common vision;



5. Cross Cutting Issues

- Well established and vibrant financial institutions, capital markets and stock exchange; and
- Regional agreements on joint implementation of projects (through bilateral and multilateral MoUs).

Public Private Partnerships

SADC governments have realised that on their own, they do not possess adequate finance, skills and technology to transform the infrastructure sector so that it is modernised and performs efficiently. They have therefore invited the private sector to be partners in the provision, maintenance, operation, management and ownership of infrastructure, systems, services and facilities. The Protocols and other legal instruments define the framework for private sector partnership and participation in the infrastructure in the region. These regional protocols are reinforced by national laws, policies and regulations that are private sector friendly.

There are several options for PPPs which can be adopted by member States. In a number of cases, where the government feels the infrastructure is strategic, it has bought equity directly or indirectly within the project and provided guarantees in order to reduce risk and teamed up with the private sector within the Build-Operate and Transfer (BOT) framework. After many years (mostly 30 years), the private sector wholly transfers the assets and management to the state, assuming that all costs and reasonable returns have been recouped. Other PPP options include Build-Own-Operate-Transfer (BOOT), Lease-Rehabilitate-Operate-Transfer (LROT), the Build-Transfer-Lease (BTL) and Joint Ventures (JVs). The Bulawayo Beitbridge Railway (BBR), Gautrain (RSA) and Sena Rail Line (Mozambique) are typical examples.

6. Way Forward for Accelerating the Implementation of Regional Infrastructure Development

Way Forward for Accelerating the Implementation of Regional Infrastructure Development

This section recommends the actions required to accelerate implementation of the SADC Infrastructure Development Programme. This section will also recommend an instrument of accountability and reporting, informed by the urgent need for a paradigm shift in the manner the SADC region undertakes the business of regional infrastructure development. In this regard, the following is proposed as a basis for a Way Forward:

- Consolidation and refinement of the current sectoral infrastructure development plans (energy, tourism, transport, communications / ICT and water) into a single comprehensive SADC Regional Infrastructure Development Master Plan.
- Customised regional infrastructure development programme for Angola and DRC, and to a certain extent Mozambique, to be informed by an *Infrastructure Needs Analysis Study* for the affected countries, within the post-conflict reconstruction framework.
- *Implementation of corridor transport and trade facilitation measures*, focusing on minimising delays at border posts, harmonisation of customs documentation and procedures, and creation of one-stop border posts, in order to eliminate transport bottlenecks to and from the sea for the landlocked SADC Member States.
- *Preparation of urgent priority regional infrastructure projects* in all key infrastructure areas for presentation to NEPAD and Cooperating Partners including DBSA, ADB and World Bank, as well as Development Finance Institutions in the Member States.
- Establishment of SPVs that can transact on behalf of the Member States and through which the private and public sectors, as well as other stakeholders, can constructively engage in the project.
- Urgent operationalisation of the *SADC Project Preparation Development Fund* to facilitate packaging of trans-boundary projects, Feasibility Studies and Environmental Impact Assessments, and subsequently enable the marketing of such projects to investment partners and consortiums.
- Development and signing of accords by participating Member States (preferably at the level of Heads of States) committing themselves to *jointly source financing and implement trans-boundary infrastructure projects* within agreed timeframes.
- Mobilisation of regional and national resources for priority infrastructure development projects, to augment resources coming from outside the region.
- Creation of a well-capacitated *Project Coordination Unit (PCU)* within the Secretariat to assist Member States with the coordination of development, packaging and joint implementation of regional infrastructure projects, in conjunction with development partners and Member States.
- Strengthening of national and regional institutional structures, to oversee the implementation of trans-boundary infrastructure projects, reporting directly to Council and Summit on an annual or *ad hoc* basis, as a mechanism for improved monitoring and evaluation mechanisms.
- *Creation of an enabling environment* pertaining to an institutional framework, regulatory framework and other policy related imperatives, to enhance and enable private sector participation in regional infrastructure development.



Annex: Benefits to Member States

In crafting the various programmes for infrastructure development, the process is mindful of the need to ensure that, as far as possible Member States stand to benefit from the process. In so doing, the priorities of the Member States continue to inform the programme. The following analysis presents an overview of the distribution of current profiled projects. The Secretariat will continue adopt this philosophy, bearing in mind the need to upgrade infrastructure in those Member States who may be lagging behind, especially as part of the Post Conflict Reconstruction. There are initiatives to fast track the preparation for priority roadmaps on infrastructure development for Angola, DR Congo and to some extent Mozambique.

Statistical Analysis of level of Member States Participation in Regional Infrastructure Development Projects and Programmes

The SADC Infrastructure Development Status Report contains projects and programmes in which Member States are the key drivers and champions. One of the key objectives of the SADC infrastructure development agenda, derived from the RISDP and the Treaty, is to facilitate equity in development, through scaling up of projects in those Member States that are lagging behind, as the premise for the regional integration. The Secretariat has facilitated a process of identification of key regional infrastructure projects which will ensure adequate connectivity of all Member States to enable effective operationalisation of the Free Trade Area launched in 2008, the intended launch of the Customs Union and Common Market.

These projects have been approved by Member States through the appropriate institutional structures for the Energy, Transport, Communication and the Water Sectors, and subsequently endorsed by Council. The Sector Ministers in the areas of Tourism, Energy, Transport, Communications and ICT, as well as Water continue to exercise implementation oversight on all the projects, through the structures that they have established.

The process of identification of projects is ongoing, in conjunction with the Member States, and these projects will be included in the SADC Regional Infrastructure Development Master Plan, currently under development. In total, seventy five (75) regional projects/programmes on infrastructure development have been profiled and the distribution is as follows, energy (34), transport (21) communications three (3) and water seventeen (17). The project profiles to be published at a later stage, essentially highlight Project Sponsors, Objectives, Project Scope, Cost Estimates, Status of funding, among others. Additional projects continue to be factored as and when the Member States submit them as regional projects.

Project profiles will be continuously updated to reflect changes and progress in the implementation status. We also plan to create a web based projects data base that member states can access as a way of wider dissemination and sharing of information.

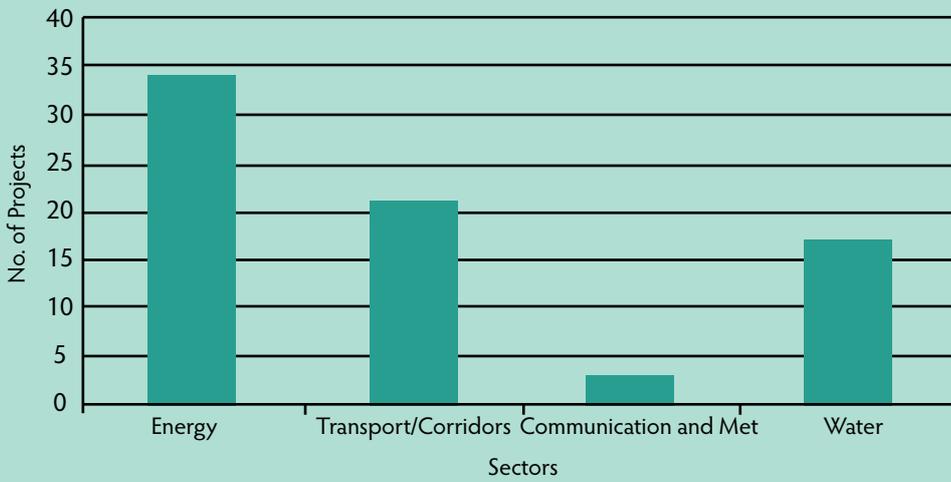
The infrastructure projects contained in this report are however at different levels of implementation, namely, identification, pre-feasibility, feasibility and implementation.

A statistical analysis has been carried out for the profiled projects, focusing on Member States participation to demonstrate project distribution amongst Member States, in respect of the projects that have been documented to date. The analysis below depicts the following:

- (a) Ongoing infrastructure projects per sector as currently documented;
- (b) Level of participation of Member States in different sectors of infrastructure;
- (c) Level of participation of Member States in the consolidated infrastructure projects in the region.

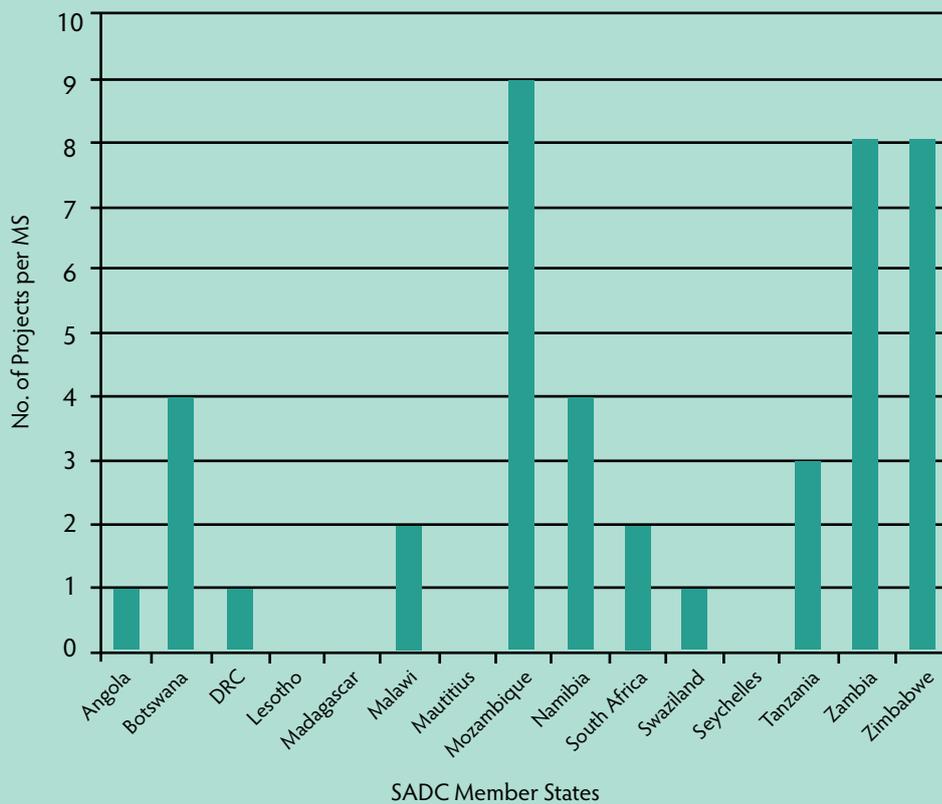
Profiled Infrastructure Projects

Profiled Infrastructure Projects per Sector



Energy Projects

Regional Energy Projects

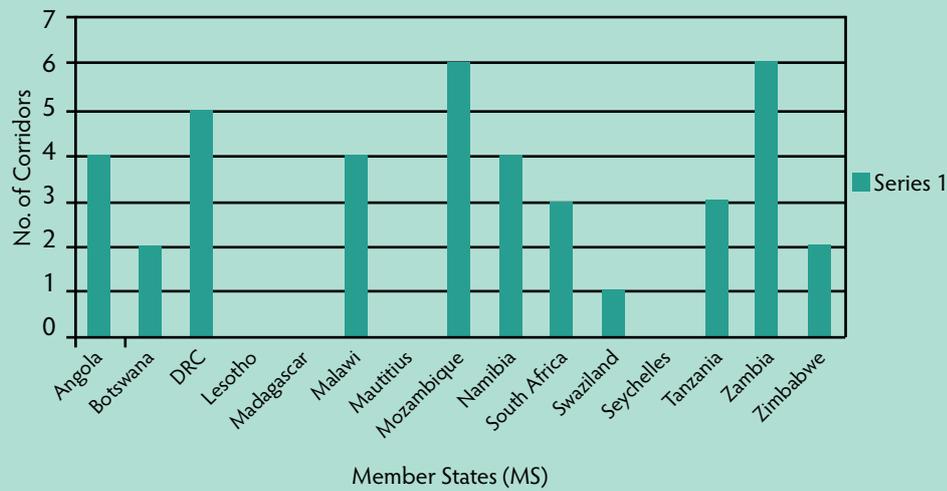


Energy Projects

No.	Name of Project	Countries Traversed
1.	Western Corridor Power Inter-Connector Project	Angola, Botswana, DRC, Namibia, South Africa
2.	Mozambique-Malawi 220Kv Inter-Connector	Mozambique-Malawi
3.	Zambia-Tanzania-Kenya Power Interconnection	Zambia, Tanzania, Kenya
4.	Zimbabwe-Zambia-Botswana-Namibia Interconnector (ZIZABONA)	Zimbabwe, Zambia, Botswana, Namibia
5.	Morupule B Power Station	Botswana
6.	Mmamabula Energy Project	Botswana
7.	Mpanda Nkuwa Hydro Power Station – Phase 1	Mozambique
8.	Moatize Project	Mozambique
9.	Kafue Gorge Dam Lower Project	Zambia
10.	Itezhi-Tezhi Hydropower Project	Zambia
11.	Kalungwishi Hydro Power Project	Zambia
12.	Kariba North Bank Power Station Extension	Zambia
13.	Rehabilitation of Hwange Power Station Stage 1	Zimbabwe
14.	Hwange Power Station 7&8 Expansion Project	Zimbabwe
15.	HCB North Bank Extension	Mozambique
16.	Coal Bed Methane Gas Power Station	Zimbabwe
17.	Kariba South Power Station 7&8 Expansion Project	Zimbabwe
18.	Mozambique Backbone Transmission Line	Mozambique, South Africa
19.	HCB North Bank Extension	Mozambique
20.	Benga Power Station Phase 1	Mozambique
21.	Moamba Power Station	Mozambique
22.	Lurio Power Station	Mozambique
23.	Lower Orange River Power Station	Namibia
24.	Walvis Bay Power Station	Namibia
25.	Lubombo Power Station	Swaziland
26.	Itezhi Tezhi Transmission line	Zambia
27.	Kariba North Bank Transmission line	Zambia
28.	Gokwe North Power Station	Zimbabwe
29.	Bakota Gorge	Zimbabwe
30.	Mozambique Backbone Transmission Lines Phase I & 11	Mozambique
31.	Central Transmission Corridor Network (CTC)	Zimbabwe
32.	Shongwe River	Malawi
33.	Ruhuji Power Station	Tanzania
34.	Tancoal	Tanzania

SADC Corridors

SADC Corridors

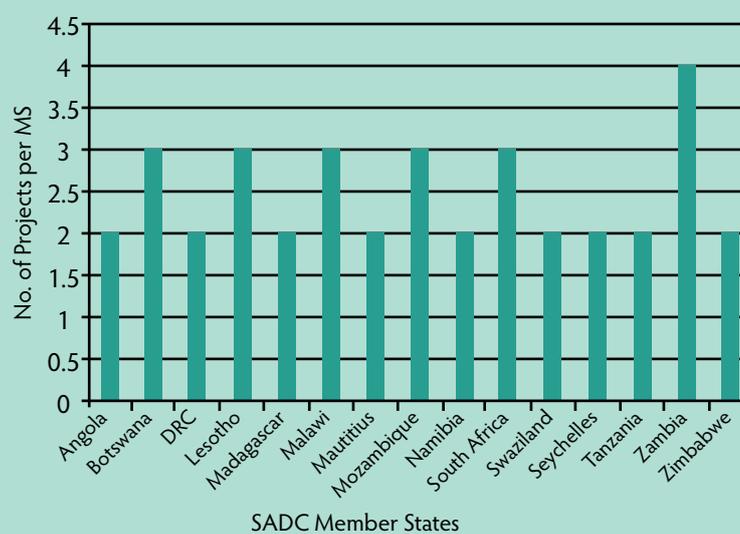


No.	Name of Corridor	Countries
1.	North – South	Angola, DRC, Botswana, Malawi, Mozambique Zambia, Zimbabwe, South Africa, UR of Tanzania
2.	Maputo	Mozambique South Africa, Swaziland
3.	Beira	Mozambique Malawi Zambia, Zimbabwe
4.	Nacala	Mozambique Malawi, Zambia
5.	Mtwara	Mozambique Malawi, Tanzania, Zambia
6.	Dar-es-Salaam	DRC Mozambique, Malawi, Tanzania, Zambia
7.	Central	DRC, Tanzania Rwanda, Uganda
8.	Tans-kgalagadi	Botswana, Namibia South Africa
9.	Trans-Caprivi	DRC, Namibia, Zambia
10.	Trans-Cunene	Angola, Namibia
11.	Namibie	Namibia, Angola
12.	Libito	Angola, DRC, Zambia
13.	Milange	Angola, DRC



Transport Projects

Regional Transport Projects



No.	Name of Project	Countries
1.	Feasibility Study for SADC Upper Airspace Control Center Master Plan, and the Viability of the Lower Airspace	All except Seychelles
2.	Establishment of a SADC -Cooperative Development of Operational Safety and Continuing Airworthiness Programme (SADC - COSCAP)	All except Seychelles
3.	Feasibility and Detailed Engineering Design Study of the Kazungula Bridge and Border Post Facilities.	Botswana, Zambia
4.	Shire -Zambezi Waterways Project Feasibility Study	Mozambique, Malawi, Zambia
5.	Lesotho Railway Feasibility Study	Lesotho, South Africa

Note

* Feasibility and Detailed Engineering Design Study of the Kazungula Bridge and Border Post Facilities is a project on the North South Transport Corridor therefore has not been carried to total.

ICT Infrastructure Projects

ICT Infrastructure Projects



No.	Name of Project	Countries
1.	SADC Regional Information Infrastructure (SRII)	All Member States
2.	Eastern Africa Submarine System (EASSy)	All Member States
3.	NEPAD ICT Broadband Infrastructure	DRC, Botswana, Lesotho, Madagascar, Malawi, Mauritius, South Africa, Tanzania, Zambia, Zimbabwe



Water Projects

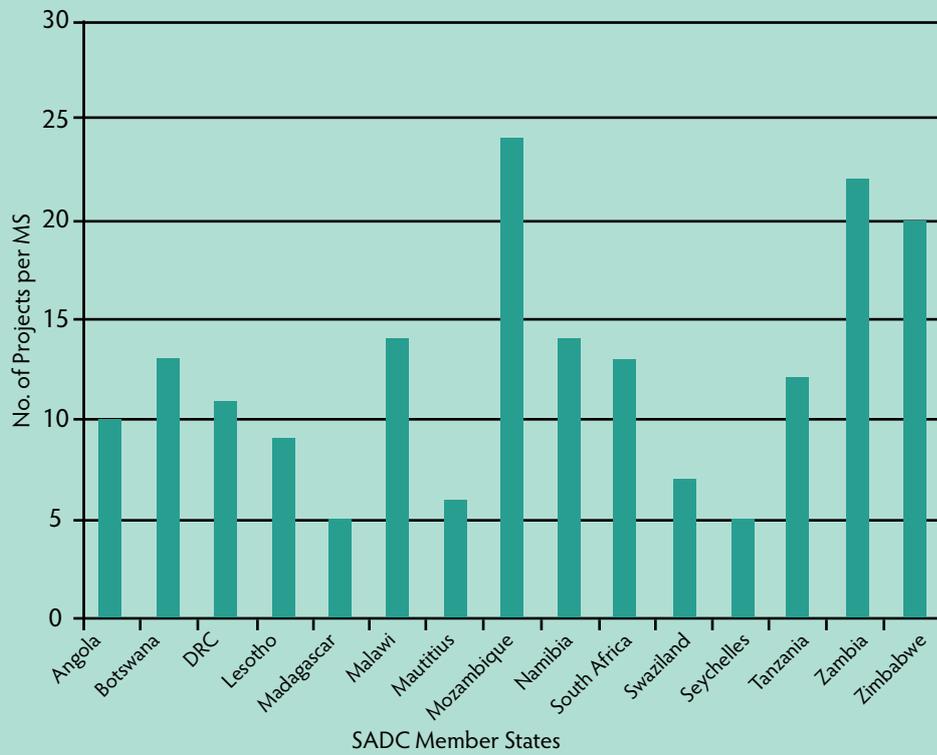
Regional Water Projects



No.	Name of Project	Countries
1.	Rehabilitation of the Nordoewer Irrigation Scheme on the Lower Orange River between Namibia and South Africa.	South Africa, Namibia
2.	Construction of Movene Dam	Mozambique
3.	Construction of 29 Medium/Small Earth Dams	Zambia
4.	Construction of Manyana Dam on the Kolobeng River at Manyana	Botswana
5.	Rehabilitation and expansion of the water supply system for the Town of Manica.	Mozambique
6.	Lake Tanganyika Management Planning Project.	Zambia
7.	Kafue Gorge Dam Lower Project	Zambia
8.	National Water Infrastructure Development Project Proposal (Malawi, but can indirectly benefit Mozambique and Tanzania)	Malawi, Mozambique, Tanzania
9.	Batoka Gorge Hydroelectric Scheme	Zimbabwe, Zambia
10.	Bulawayo-Matebeleland-Zambezi Water Supply Project	Zimbabwe
11.	SADC Hydrological Cycle Observing Systems Phase 2 (SADC Hycos)	All SADC Member States
12.	Construction of Moamba- Major dam	Mozambique
13.	National Water Infrastructure Project development	Malawi
14.	Metolong Dam Detailed Design and Construction	Lesotho
15.	Lowlands Water Supply Scheme	Lesotho
16.	Ruhudi Hydropower project	Tanzania

Total Profiled Projects

Regional Infrastructure Projects



Acronyms and Abbreviations

AASA	Airline Association of Southern Africa
ASANRA	Association of Southern African National Road Agencies
AU	African Union
BDC	Baharicom Development Company
CMI	Corridor Management Institutions
COMESA	Common Market for Eastern and Southern Africa
CRASA	Communications Regulators Association of Southern Africa
DBSA	Development Bank of Southern Africa
DFID	Department for International Development (UK)
DWDM	Dense Wavelength Division Multiplexing
EAC	East African Community
EASSy	Eastern Africa Submarine System
ESI	Electricity Supply Industry
FESARTA	Federation of East, Southern African Road Transporters Association
GDP	Gross Domestic Product
I&S	Infrastructure and Services
ICAO	International Civil Aviation Organisation
ICP	International Cooperating Partners
IMO	International Maritime Organisation
IRRN	Inter Regional Railway Network
IWRM	Integrated Water Resources Management
MASA	Meteorological Association of Southern Africa
MDG	Millennium Development Goals
MoU	Memorandum of Understanding
MRTA	Multilateral Road Transport Agreement
NEPAD	New Partnership for Africa's Development
NSC	North-South Corridor
NTB	Non Tariff Barrier
OSBP	One-Stop Border Post
PCU	Project Coordination Unit
PMAESA	Ports Management Association of East and Southern Africa

PPP	Public Private Partnership
RBO	River Basin Organisation
REC	Regional Economic Community
REIC	Regional Electricity Investment Conference
RERA	Regional Electricity Regulators Association
RETOSA	Regional Tourism Organisation of Southern Africa
RIDMP	Regional Infrastructure Development Master Plan
RISDP	Regional Indicative Strategic Development Plan
RPGA	Regional Petroleum and Gas Association
RSA	Republic of South Africa
RSAP	Regional Strategic Action Plan
RSWIDP	Regional Strategic Water Infrastructure Development Programme
RTFP	Regional Trade Facilitation Programme
RTRN	Regional Trunk Road Network
SADC	Southern African Development Community
SAPOA	Southern African Postal Operators Association
SAPP	Southern African Power Pool
SAPRA	Southern Africa Postal Regulators Association
SASO	System Approach to Safety Oversight
SATA	Southern African Telecommunications Association
SPV	Special Purpose Vehicle
SRII	SADC Regional Information Infrastructure
TFCA	Trans-Frontier Conservation Areas
UACC	Upper Air Space Control Centre
UNECA	United Nations Economic Commission for Africa
WRTC	Water Resources Technical Committee
WSRG	Water Strategy Reference Group
YD	Yamoussoukro Decision
ZIZABONA	Zimbabwe-Zambia-Botswana-Namibia







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