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**Report for the United States Army Corp of Engineers (USACE) on  
Integrated Water Resources Development and Management within the  
Southern African Development Community (SADC)**

Compiled by  
African Water Issues Research Unit (AWIRU)  
CIPS, University of Pretoria, South Africa  
July 2005

## Report Documentation Page

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**Summary**

Southern Africa is characterized by a large number of international river basins, inherent climatic variability, and a natural maldistribution of perennial rivers. The region also has a history of political instability, driven by liberation struggles against the former colonial powers, apartheid and the Cold War. Southern Africa's transboundary rivers and their associated ecosystems could become either drivers of peace and economic integration or sources of endemic conflict. Water scarcity has also placed limits on the future economic growth potential of the region's four most economically developed countries. Regional organizations such as the Southern African Development Community (SADC) and continent-wide initiatives such as the African Council of Water Ministers (AMCOW) have identified the development of water resources as an integral part of regional economic development. Various projects and programmes have been promoted to contribute to the sustainable development of the region's water resources, involving physical infrastructure projects such as water transfers & storage works as well as a range of institutional and policy development initiatives. The United States Army Corp of Engineers (USACE) has recognised the potential opportunity to engage and optimise the capabilities of the United States in ways that effectively address the specific goals of the Southern African region, in particular addressing the water resource development and management issues. This report is intended to provide a brief narrative description of the various projects being developed through SADC and suggest modes of cooperation with regional organisations for the USACE.

***Keywords:***

Integrated water resources development, Southern African Development Community, water infrastructure development, regional development, policy formation.

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## **Background**

The Southern African Development Community (SADC) strives to foster a regional approach to sustainable development and attain an integrated regional economy across its 14 member states. Three key development objectives form the basis for the regional economy: poverty alleviation, food security and industrial development (SADC, 2002a). SADC grew out of the Southern African Development Coordination Conference (SADCC), which was a regional political grouping constituted during the Cold War to coordinate the “struggle” against colonialism, racism and in some cases capitalism (Turton, 2004:259).

Of relevance to this study are the following key objectives of the SADC as taken from the “Treaty of the Southern African Development Community (1992)”:

Article 5

- 1a – achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa...
- 1d – promote self-sustaining development...
- 1f – promote and maximise the productive employment and utilisation of resources in the Region.

The African Council of Water Ministers (AMCOW) has identified the development of water resources as an integral part of regional economic development. As the region is characterised by water scarcity and frequent occurrences of droughts and floods, implementing measures to ensure sufficient access to water is a common goal for those in the SADC region. The SADC Water Division (a component of the Directorate of Infrastructure and Services) is the agency within the SADC Secretariat responsible for addressing these challenges through an integrated water resources development and management approach. The current regional instrument is the Regional Indicative Strategic Development Plan (RISDP), and a consultancy is currently underway to determine how the Regional Strategic Action Plan (RSAP) for Integrated Water Resource Management (IWRM) can be aligned to support this.

## **Terms of Reference**

The United States Army Corp of Engineers (USACE) has recognised the potential opportunity to engage and optimise the capabilities of the United States in ways that effectively address the specific goals of the Southern African region, in particular addressing the water resource development and management issues.

On request, AWIRU has produced this report to assist USACE identify potential initiatives that could support the activities of the SADC Regional Strategic Action Plan (RSAP) for Integrated Water Resource Development (IWRD). A comprehensive consultative process was not intended at this stage.

## **Report Structure**

The report is split into two parts. The first provides a brief overview of the projects that constitute the RSAP-IWRD. The second presents a brief overview of the main stakeholders involved with water resource management and development in the SADC region. The

objective of the report is to provide a brief overview of the current SADC water resource framework for USACE. The information for this report is gathered primarily from AWIRU's own institutional knowledge and the SADC RSAP-IWRM Mid-Term Review Report (SADC, 2004).

This report aims to identify initiatives where possible future collaboration between USACE, SADC Water Division and AWIRU will lead towards meeting the development needs of the Southern African region.

### **Overview of the SADC Regional Strategic Action Plan (RSAP) for Integrated Water Resource Management (IWRM)**

The RSAP-IWRD was formulated in 1997-1998 and approved by the SADC Summit in 1998. The main focus of the RSAP is primarily to create an enabling environment for joint management of the regional water resources (SADC, 1998). The implementation of the SADC Protocol on Shared Water Course Systems is at the heart of the RSAP (SADC, 2000). An amendment to this Protocol has been introduced and it is in the process of being ratified by all Member States.

The SADC Water Division is the agency within SADC responsible for monitoring and guiding the implementation of the RSAP-IWRD. The Plan is the framework for action through which the SADC Water Division plans to achieve its sustainable water resources management goals.

The RSAP-IWRD is based on seven strategic areas for intervention:

- Legal/Regulatory
- River Basin Management
- Linkages with Sustainable Development Policies
- Information Acquisition and Management
- Awareness-Building, Training and Education
- Public Participation
- Infrastructure Investment

Based on these six strategic areas, various projects were identified to accomplish the strategic objectives. In total 44 water resource development projects, representing national and regional initiatives were identified. Of these, 31 projects were prioritised for implementation during a 5-year programme.

Each project has loosely drawn objectives, a programme of activities that are responsive to external circumstances and have resources that in many cases need to be procured stage by stage. A major feature of all projects is a consultation process, through regular meetings and workshops, which involves all members of the SADC community at both ministerial and technical level.

It should be noted that although some elements of the specific project objectives and the areas of intervention have been realigned over time, this report has focused on providing the current status of the RSAP as defined in the Mid-Term Review (SADC, 2004) and does not provide the details of previous components.

## Strategic Objectives of the RSAP

A number of strategic objectives for the RSAP were determined at the outset, in 1998, to address the issues and constraints concerning water resources in the SADC region. These objectives are reproduced in Table 1 below.

**Table 1: RSAP Strategic Objectives**

### **1: Improve the Legal and Regulatory Framework at the National and Regional Level**

- 1.1 Harmonize water laws
- 1.2 Set standards for drinking water
- 1.3 Develop water quality standards
- 1.4 Enforce standards
- 1.5 Provide framework for adequate settlement mechanisms
- 1.6 Create equitable use of shared waters through river basin commissions

### **2: Improved National and Transboundary River Basin Management, Planning & Coordination**

- 2.1 Improve capabilities of national water authorities
- 2.2 Improve regional cooperation in river basin management
- 2.3 Develop equitable use of shared waters through river basin commissions
- 2.4 Establish better intersectoral planning and coordination of water sector in each country
- 2.5 Strengthen SADC Water Sector Coordination Unit

### **3: Strengthen Linkages between Macro-economic, Social and Environmental Policies**

- 3.1 Shift water use to most efficient use based on economic values
- 3.2 Establish cost recovery mechanisms
- 3.3 Balance water resource demand and supply
- 3.4 Conserve water resources

### **4: Improve Information Acquisition, Management and Dissemination**

- 4.1 Monitoring programs
- 4.2 Assessment methods
- 4.3 Information access and exchange
- 4.4 Regional hydro-meteorological data banks
- 4.5 Interdisciplinary knowledge
- 4.6 Research for new initiatives

### **5: Support Awareness Building, Education and Training**

- 5.1 Share knowledge about water resources
- 5.2 Identify best management practices
- 5.3 Support regional and national centres of excellence
- 5.4 Expand educational programmes
- 5.5 Demonstrate effective technical co-operation
- 5.6 Develop training courses on water resource management

### **6: Promote Public Participation**

- 6.1 Identify stakeholders and secure stakeholder contributions
- 6.2 Ensure full and effective stakeholder participation
- 6.3 Promote stakeholders participation
- 6.4 Establish community-based water management groups
- 6.5 Adopt positive policies to address needs of women and the disadvantaged

### **7: Invest in Infrastructure**

- 7.1 Expand infrastructure development and rehabilitation
- 7.2 Meet demands of multiple users
- 7.3 Ensure efficient use of water resources
- 7.4 Plan and implement works in a holistic manner
- 7.5 Balance social and environmental concerns with infrastructure goals

## RSAP Projects

The projects that have been prioritised for implementation in the RSAP are closely associated with the overall objectives.

Details on each of the 31 priority projects in the RSAP are summarised below. Since their original identification the projects have undergone some grouping (ie some projects being bundled together). To reflect the groupings, the projects have now been given the designation AAA, as shown in the table. For the purpose of this report, the full 31 priority projects have been shown separately, however, their groupings have been highlighted. The information given on each project includes their reference, title, main objective and most relevant targets as set under SADC's Regional Indicative Strategic Development Plan (RISDP) (SADC, 2003). The main objectives are taken from the definitions that appear in the SADC RSAP 2002 Progress Report (SADC, 2002b). Following the table a brief overview of the progress of various projects is provided.

**Table 2: List of RSAP Projects**

Project Number & Title	Main Objective	RISDP Target
<b>Legal/Regulatory</b>		
1. Regional Guidelines for Review and Formulation of Water Legislation  <i>Now AAA.1 – bundled with Projects 9 &amp;10</i>	Promote and develop a legal and institutional environment conducive to the equitable and sustainable development and management of the freshwater resources in the SADC countries, including resources shared across national boundaries	Water sector policies and legislation harmonised by 2006
2. Regional Guidelines for Dam Safety Legislation and Procedures  <i>AAA.2</i>	Develop and promote the implementation of guidelines on dam construction, operation and maintenance for the reduction of risk to life, property, livelihoods and the environment	
<b>River Basin Management</b>		
3. Capacity Building for Joint Integrated Basin Management  <i>AAA.3</i>	To attain sustainable integrated planning and management of water resources through the improvement of capacity to develop and implement joint river basin management initiatives	Establish and strengthen at least eight River Basin Organisations by 2006
4. Consultative Forum on Water Issues  <i>Now AAA.20 bundled with Projects 20&amp;21</i>	To strengthen and broaden regional awareness of IWRM concepts and principles at all levels to facilitate their practise in the region, contributing to equitable and sustainable utilisation of water, land and related resources	Increased awareness, broad participation and gender mainstreamed in water resources development and management by 2005



<b>Project Number &amp; Title</b>	<b>Main Objective</b>	<b>RISDP Target</b>
5. Programme on Water Supply and Sanitation for SADC Region  <b>AAA.5</b>	To contribute to the socio-economic growth of the SADC region through promotion of good public health and provision of sufficient water for economic activities while protecting the environment.	Halve by 2015 the proportion of people without access to safe drinking water and sanitation services
6. Guidelines for Ground Water Management Programme in SADC  <b>AAA.6</b>	To promote the sustainable development of groundwater resources at a regional level, incorporating research, assessment, exploitation and protection, particularly related to drought management	Water data banks and planning networks are established and fully operational by 2007
7. Water Sector Coordinating Unit Capacity Building Project  (due to restructuring WSCU now referred to as 'Water Division')  <b>AAA.7</b>	To strengthen the capacity of the Water Division to ensure that it delivers effectively on its mandate of providing strategic and technical leadership and promoting cooperation in all water matters in the SADC region	Training and institutional capacity strengthening programmes developed and implemented by 2008
8. Implementation Programme for SADC Protocol on Shared Watercourses  <b>AAA.8</b>	To develop closer co-operation for judicious, sustainable and coordinated management, protection and utilization of the water resources of shared watercourses and to advance the economic integration agenda of the SADC region	Establish and strengthen at least eight River Basin Organisations by 2006
<b>Linkages with Sustainable Development Policies</b>		
9. Regional Guidelines for Water Policy and Review in Member-States  <b>Now AAA.1</b> , bundled with Projects 1 & 10	To develop guidelines which would give direction to the formulation and review of water policies and strategies in SADC countries; and to support member States in the development and implementation of the policies and strategies.	Water sector policies and legislation harmonised by 2006
10. Develop and Implement National Water Sector Strategies  <b>Now AAA.1</b> , bundled with Projects 1 & 9	To develop guidelines which would give direction to the formulation and review of water policies and strategies in SADC countries, and to support member States in the development and implementation of the policies and strategies.	Water sector policies and legislation harmonised by 2006
11. Establish Regional Water Sector Policy and Strategy  <b>AAA.11</b>	To formulate a Regional Water Sector Policy and Strategy for the SADC Region	Long term regional water policy and strategy developed and approved by March 2004

<b>Project Number &amp; Title</b>	<b>Main Objective</b>	<b>RISDP Target</b>
12. Economic Accounting of Water Use  <b>AAA.12</b>	To develop methodologies for estimating the economic value of current water use and to investigate alternative water use practices and their implications on river basins in national and transboundary water. This will provide methodologies for estimating the economic value of current water use for use by member States	
13. Study for Expanding Private Sector Participation in Water and Sanitation Services  <b>AAA.13</b>		Halve by 2015 the proportion of people living without access to safe drinking water and sanitation services
<b>Information Acquisition and Management</b>		
14. Assessment of Surface Water Resources  <b>AAA.14</b>	To produce and make accessible a SADC-wide Surface Water Resources Assessment, in a manner that builds capacity in implementing institutions, promotes confidence in assessment products amongst Member States, and which ensures that the assessment supports equity sharing of water within international river basins, and operational water resources management	Water data banks and planning networks are established and fully operational by 2007
15. Expansion of SADC-HYCOS  <b>Now AAA.15</b> , bundled with Project 19	To enhance the effectiveness of real-time and near real-time hydrological monitoring across the SADC region in regional and national water resources management	Water data banks and planning networks are established and fully operational by 2007
16. Regional Project to Control Infestation and Translocation of Aquatic Weeds  <b>AAA.16</b>	To attain sustainable integrated planning and management of water resources through the creation of an enabling environment for the effective management, eradication and control of aquatic weeds	
17. Training in Surveying, Mapping and Geographic Information Systems  <b>Now AAA.22</b> , bundled with Project 22	To strengthen the human resource capacity of water resources institutions in the SADC region to enable them to contribute effectively to the sustainable integrated water resources development and management	Training and institutional capacity strengthening programmes developed and implemented by 2008

<b>Project Number &amp; Title</b>	<b>Main Objective</b>	<b>RISDP Target</b>
18. Upgrade and Modernise Water Monitoring System for Lake Malawi  <b>Now AAA.18</b> , bundled with Projects 27, 28 & 29		Establish and strengthen at least eight River Basin Organisations by 2006
19. Rehabilitation of Joint Monitoring Systems – Angola and Namibia  <b>Now AAA.15</b> , bundled with Project 15	To enhance the effectiveness of real-time and near real-time hydrological monitoring across the SADC region in regional and national water resources management	Establish and strengthen at least eight River Basin Organisations by 2006
<b>Awareness-Building, Training, Education</b>		
20. Awareness-Building for Decision-Makers  <b>Now AAA.20</b> , bundled with Projects 4 & 21	To strengthen and broaden regional awareness of IWRM concepts and principles at all levels to facilitate their practise in the region, contributing to equitable and sustainable utilisation of water, land and related resources	Increased awareness, broad participation and gender mainstreamed in water resources development and management by 2005
21. Involving the Media in Water Issues  <b>Now AAA.20</b> , bundled with Projects 4 & 20	To strengthen and broaden regional awareness of IWRM concepts and principles at all levels to facilitate their practise in the region, contributing to equitable and sustainable utilisation of water, land and related resources	Increased awareness, broad participation and gender mainstreamed in water resources development and management by 2005
22. Human Resources Development Programme  <b>Now AAA.22</b> , bundled with Project 17	To strengthen the human resource capacity of water resources institutions in the SADC region to enable them to contribute effectively to the sustainable integrated water resources development and management in the region	Training and institutional capacity strengthening programmes developed and implemented by 2008
23. WATERNET  <b>AAA.23</b>	Strengthened water training institutions as a result of a functioning network of training institutions and a group of water professionals capable of clearly articulating IWRM issues.	Centres of excellence for water research and technology development are identified, strengthened by 2005
<b>Public Participation</b>		
24. Promotion of Stakeholder Participation in Water Resources Management  <b>Now AAA.24</b> , bundled with Projects 25 & 26	Deliberate and sustainable participation of stakeholders in policy strategy formulation and implementation of matters relating to water resources development and management at local, intermediate, national and regional levels	Increased awareness, broad participation and gender mainstreamed in water resources development and management by 2005

<b>Project Number &amp; Title</b>	<b>Main Objective</b>	<b>RISDP Target</b>
25. Feasibility Study for Creating Fund to Support NGO/CBO Participation in Water Resources Management Activities  <b>Now AAA.24</b> , bundled with Projects 24 & 26	Deliberate and sustainable participation of stakeholders in policy strategy formulation and implementation of matters relating to water resources development and management at local, intermediate, national and regional levels	Increased awareness, broad participation and gender mainstreamed in water resources development and management by 2005
26. Programme on Means to Empower Women in Water Issues  <b>Now AAA.24</b> , bundled with Projects 24 & 26	Deliberate and sustainable participation of stakeholders in policy strategy formulation and implementation of matters relating to water resources development and management at local, intermediate, national and regional levels	Increased awareness, broad participation and gender mainstreamed in water resources development and management by 2005
<b>Infrastructure Investment</b>		
27. Control and Development of Lake Malawi and Shire River  <b>Now AAA.18</b> , bundled with Projects 18, 28 & 29		Establish and strengthen at least eight River Basin Organisations by 2006
28. Study of the Navigability of the Zambezi and Shire Rivers  <b>Now AAA.18</b> , bundled with Projects 18, 27 & 29		Establish and strengthen at least eight River Basin Organisations by 2006
29. Stabilisation of the Course of the Songwe River  <b>Now AAA.18</b> , bundled with Projects 18, 27 & 28		Establish and strengthen at least eight River Basin Organisations by 2006
30. Lower Orange River  <b>AAA.30</b>	Improved water resource management in the Orange/Senqu River Basin in terms of economic and social benefits as well as environmental sustainability	Establish and strengthen at least eight River Basin Organisations by 2006
31. Integrated Basin Management Plan for the Okavango River  <b>AAA.31</b>	To alleviate imminent and long term threats to the linked land and water systems of the Okavango River through the joint management of the ORB water resources and the protection of its linked aquatic ecosystems and their biological diversity	Establish and strengthen at least eight River Basin Organisations by 2006

## Progress of RSAP Projects

Some projects have been more successful than others. Attracting donor finance has been a major factor in determining the success of a project. However, some projects, which have attracted donor finance, have not proceeded at the rate originally envisaged. This review of progress is sourced from SADC's RSAP Mid-Term Review Report (SADC, 2004).

Examples of successful projects are:

- Project 11 (AAA.11) – Formulation of Regional Water Sector Policy and Strategy. A draft SADC Water Sector Policy and Strategy was produced in 2004. The project attracted funds from nine donors and was over-subscribed by 100%
- Project 23 (AAA.23) – WATERNET - Network for Education, Training & Research in IWRM. The Netherlands Government championed this project and its implementation has been through a network of academic institutions. The project attracted 50% additional funding.

Examples of projects that attracted the required funding and are proceeding successfully, but below the rate originally envisaged are:

- Projects 1, 9 & 10 (AAA.1) – National Water Sector Policy & Strategy Formulation. Although viewed by the SADC Water Division as a successful project, the securing of finance has been a factor affecting programme delay. The nature of the complex political and jurisdictional processes involved in addressing the harmonisation of policy at the national level has also been a hindrance to this project.
- Project 5 (AAA.5) – Regional Programme on Water Supply and Sanitation. This is regarded as a successful programme, involving all Member States having a direct impact towards meeting the Millennium Development Goals (MDGs). The complex and sensitive consultation processes are responsible for programme delay, rather than the financing
- Projects 15 & 19 (AAA.15) – Expansion of SADC-HYCOS. Generally successful project with some delay in its initiation.
- Project 16 (AAA.16) – Control of Infestation and Translocation of Aquatic Weeds. SADC has been successful in securing funding for the project, but implementation has now been stalled.
- Project 8 (AAA.8) – Implementation Programme for SADC Protocol on Shared Watercourses, Project 30 (AAA.30) – Lower Orange River, and Project 31 (AAA.31) – Integrated Plan for the Okavango River. Considerable achievement has been made as the Protocol has been revised and ratified, agreements signed to establish River Basin Organisations (RBOs) and other basin initiatives. However, as this involves a political process amongst riparian states, often support is lacking for normal programme management procedures

- Project 7 (AAA.7) – Capacity Building within the SADC Water Division  
This has been delayed due to the relocation of the Water Division from Maseru to Gaborone as dictated by the programme for SADC-wide reorganisation.

Examples of projects that have suffered primarily due to a lack of finance are:

- Project 2 (AAA.2) – Regional Guidelines for Dam Safety
- Project 3 (AAA.3) – Capacity Building for Basin Management
- Projects 4, 20 & 21 (AAA.20) – Awareness Creation on Water Issues
- Project 6 (AAA.6) – Groundwater Management Programme
- Project 12 (AAA.12) – Economic Accounting for Water
- Project 13 (AAA.13) – Study on Private Sector Expansion in Water and Sanitation
- Project 14 (AAA.14) – Assessment of Surface Water Resources
- Projects 17 & 22 (AAA.22) – Capacity Building of the Water Sector
- Projects 18, 27, 28 & 29 (AAA.18) – Lake Malawi Sub Basin
- Projects 24, 25 & 26 (AAA.24) – Stakeholder Participation

These above projects are under implementation at varying scope and pace. Substantial recent progress has been made to secure funding for Project 6. The projects that have showed no significant implementation are Projects 12, 13, 14, 24, 25 & 26.

Overall, it is clear that the RSAP has been successful in creating an enabling environment for water resource development within the SADC region. The RSAP has generated wider awareness and understanding of the priorities and importance of the water sector. However, further work needs to be done to achieve actual implementation of these water resource development and management priorities. It is not a lack of finance alone that has resulted in the slow progress towards project implementation. The current status of the RSAP-IWRM is that it is under scrutiny by consultants (Jacobs in the UK) as part of an EU Framework Contract, in order to align it with the RISDP, which is now recognized as the formal regional development strategic plan within SADC.

## **Identification of the main stakeholders involved with Integrated Water Resource Development (IWRD) within the SADC region.**

There are many stakeholders that deal with water resource issues within the SADC region. They can be categorised into the categories below:

- Government Agencies – Regional
- Government Agencies – National
- NGOs, Academic and Research
- Private Sector
- Co-operating Partners (eg Financiers / Technical Assistance)

The organisations that form a key part of each stakeholder group are highlighted below. An attempt is made to identify the responsibilities of each stakeholder. In keeping with the ToR, only the main players have been highlighted and therefore this list is not exhaustive. Contact details, where available, are provided.

### **Government Agencies – Regional / Catchment**

#### **a) SADC Water Division**

The overall SADC Secretariat currently hosts four directorates, which are based in Gaborone, Botswana. The **SADC Water Division** sits within the Directorate of Infrastructure and Services. The Water Division is the agency within the SADC responsible for monitoring and guiding the implementation of the SADC Protocol on Shared Watercourse Systems (and its Amendment once ratified) and the RSAP-IWRD. Its responsibilities include organising and managing meetings, managing consultancies, mobilising resources, keeping records and reporting.

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#### **b) River Basin Organisations**

The SADC Protocol on Shared Watercourses is the formal legal framework on which all water related developments and management is based. This Protocol led to the establishment of River Basin Organisations (RBOs) to encourage sharing trans-boundary water resources and the harmonisation of legislation and IWRM policies.

There are several River Basin Organisations (RBOs) and catchment councils in southern Africa, including the LBPTC (Limpopo River Basin – currently being reconstituted as the Limpopo

Commission), OKACOM (Okavango River), ORASECOM (Orange River), LHWC (Lesotho Highlands Water Commission – formerly the Joint Permanent Technical Commission (JPTC)), PJTC (Permanent Joint Technical Commission – rivers shared between Angola and Namibia), JPWC (Joint Permanent Water Commission between Namibia and Botswana), JCA (Kunene River Basin), TPTC (Tripartite Permanent Technical Commission to manage the Incomati and Maputo Rivers), ZRA (Zambezi River Authority) and ZACPRO (Zambezi River). For more detailed information of the evolution of these institutions refer to Turton (2004).

The SADC MTR (SADC, 2004) indicates that while the RBOs have an important responsibility, their representatives are often more focused on the priorities of their own national government rather than on the objectives of the regional commission.

The SADC Water Division can provide contact details of the RBOs.

#### **c) African Ministerial Conference on Water (AMCOW )**

AMCOW, established in 2002, is the dialogue on water policy challenges that is led by Ministers of African States. The Ministers discuss ways to achieve the goals of the African Union (AU) and New Economic Partnership for Development (NEPAD) through sustainable water management, meet the financing challenges of the water sector in Africa and the strategies for achieving the Millennium Development Goal (MDG) targets on water and sanitation in Africa.

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#### **d) African Union (AU)**

The overall objective of the AU is to achieve greater unity and solidarity between the African countries and the peoples of Africa. The AU has several specialised technical committees to address sectoral issues. The Committee on Industry, Science and Technology, Energy, Natural Resources and Environment is the most relevant for SADC water resources.

The AU Commission is the key organ playing a central role in day-to-day management.

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### **e) New Economic Partnership for Development (NEPAD)**

NEPAD is designed to address the current challenges facing the African continent. Issues such as the escalating poverty levels, underdevelopment and the continued marginalisation of Africa needed a new radical intervention, spearheaded by African leaders, to develop a new vision that would guarantee Africa's renewal.

One of NePAD's priorities is to build and improve infrastructure, including Information and Communication Technology (ICT), Energy, Transport, Water and Sanitation.

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### **Government Agencies - National**

Each of SADC's 14 member states have national focal points and Ministries of Water Affairs that have the responsibility of creating an enabling environment for joint management of the region's water resources. This includes laying an institutional and enabling basis for the execution of infrastructure projects. Closely related is the responsibility to ensure active planning for the development and use of water (i.e. actual project implementation).

The member States of SADC are: Angola, Botswana, Democratic Republic of the Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

There is widespread support throughout the region for the principle of Integrated Water Resource Development and Management, and the RSAP as a programme of support. However, the RSAP Mid Term Review (MTR) (SADC, 2004) indicates that the level of implementation of RSAP projects within the region is low. National water sector agencies are often fully committed to domestic priorities and therefore often lack the capacity (human and financial) to engage in the implementation of RSAP projects. Better alignment is being attempted via the RISDP in terms of the EU Framework Contract consultancy currently underway.

### **Non Governmental Organisations (NGOs), Academic and Research**

There are numerous NGOs, academic and research institutions that are active in the SADC water sector. An attempt is made to illustrate the organisations that would be most useful in assisting USACE identify possible areas of engagement with SADC.

**a) African Water Issues Research Unit (AWIRU)**

Based at the University of Pretoria, AWIRU is an applied research organisation whose objective is to generate water management solutions that are politically, socially, economically, environmentally and culturally sustainable in Africa. AWIRU operates in unison with the goals of NEPAD, aiming to strengthen transboundary water governance at all levels throughout southern Africa. AWIRU has three focus areas: transboundary water management, policy formulation & institutional development, and technical water management instruments.

AWIRU has a vast range experience of working on water issues within southern Africa, an extensive network of partners/contacts and is familiar working with the SADC Water Division. The Head of AWIRU, Dr Anthony Turton, was a member of the team, that conducted the Mid-Term Review of the Implementation of the SADC RSAP-IWRM (SADC, 2004).

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**b) Network for Advocacy of Water Issues in Southern Africa (NAWISA)**

NAWISA's mission statement is 'to work together to advocate for the sustainable and equitable management of southern African water resources through effective participation of Civil Society. To achieve this, NAWISA has identified the following key priorities: information sharing, capacity building, funding and advocacy. NAWISA host three task teams: River Basin Management, Access to Water and Sanitation, and Dams.

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### **c) Global Water Partnership (GWP) – Southern Africa**

The work of GWP Southern Africa aims to contribute to poverty reduction through collaboration and coordinated development and sustainable management of water resources in the region. Capacity building in IWRM, coordinated through WaterNet, and information sharing through the Southern Africa Water Information Network (SAWINET) are programs designed to enhance knowledge among water practitioners on IWRM.

Partner countries in GWP Southern Africa are: Angola, Botswana, Democratic Republic Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

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### **Private Sector**

There is a broad range of private sector enterprises involved in the development of water resources in the SADC region. In southern Africa two of the prominent players in the field are the Rand Water Board and Arcus Gibb consulting engineers. Both have been active in large-scale projects in several SADC states and have positioned themselves as as leaders in the regional water resources development field.

### **Co-operating Partners (ie Financiers and/or Technical Assistance)**

There are several Bi-lateral and Multi-lateral organisations that have Integrated Water Management in the SADC region as one of their development priorities. Those involved are listed below. Due to their broad mandates and varying responsibilities no attempt is made to summarise their involvement within the SADC region.

#### **a) Multilateral Organisations**

- African Development Bank – [www.afdb.org](http://www.afdb.org)
- Food and Agricultural Organisation of the United Nations – [www.fao.org](http://www.fao.org)
- Global Environment Facility – [www.thegef.org](http://www.thegef.org)
- IUCN – World Conservation Union - Regional Office for Southern Africa (ROSA) – [www.iucnrosa.org.zw](http://www.iucnrosa.org.zw)
- United Nations Environment Programme (UNEP) – [www.unep.org](http://www.unep.org)
- United Nations Educational, Scientific and Cultural Organisation (UNESCO) – [www.unesco.org](http://www.unesco.org)
- United Nations Development Programme (UNDP) – [www.undp.org](http://www.undp.org)

- World Bank – [www.worldbank.org](http://www.worldbank.org)

## **b) Bi-lateral Organisations**

- Canada (CIDA) – [www.acdi-cida.gc.ca](http://www.acdi-cida.gc.ca)
- Denmark (DANIDA) – [www.um.dk/danida](http://www.um.dk/danida)
- Germany (GTZ) – [www.gtz.de](http://www.gtz.de)
- Netherlands (NEDA)
- Norway (NORAD)
- Sweden (SIDA)
- United Kingdom (DFID) – [www.dfid.gov.uk](http://www.dfid.gov.uk)
- USA (USAID) – [www.usaid.gov](http://www.usaid.gov)

## **Conclusion**

The RSAP has greatly assisted in creating an enabling environment for water resource development within the SADC region, however it is clear that further effort and assistance is required towards achieving the active planning and actual implementation of development plans. It is understood that while lack of securing finance has hindered some projects it is not the only reason. It will be prudent to observe the evolution of the current EU Framework consultancy that is seeking to develop a plan to improve the delivery of RSAP-IWRM by aligning it better with the RISDP. The report on this activity is not yet available. It is clear however, that the RISDP has become the main regional strategic management document.

There is considerable opportunity for the USACE to potentially engage with SADC and other regional stakeholders in order to assist with the implementation of various RSAP projects. Attention is drawn to the fact that most of the official SADC RSAP projects are funded on a bilateral basis, so it is necessary to understand the difference between having a project registered as a SADC initiative, and the final implementation thereof. The best example of this is WATERNET, which is registered with SADC in name only, but is directly funded by the Dutch Government and managed through a local NGO. It is apparent that the value of having political sanction is important, and for this reason engagement with SADC is necessary. The strategic advantage of engaging in this process should be carefully planned before initiation in order to get maximum advantage for USACE. AWIRU can play a role in this planning process given its credibility in the region, and its technical insight. This should be coordinated with other American initiatives in the region, such as the current USAID support to OKACOM. This should be aimed primarily at reinstating American interests in the region, because perceptions within the echelon of the political elite within SADC are generally negative towards the USA.

Given the high level of expertise that USACE is capable of mustering, it is recommended that highly focussed actions be launched, each with carefully crafted objectives, and supported by the appropriate political will to carry through to project completion. In this regard specific consideration can be given by USACE to AAA 18, related to infrastructure development in various river basins in the region (refer to Table 1) as this amalgamation is clustered on the core skills of the USACE, and is currently unfunded. Consideration can be given to opening a line of communication that merely seeks to determine what these project proposals are about, and then use the dialogue that will open up to gain somewhat of a beachhead. This would

become an iterative process where feedback loops are deliberately built in to enable decisions to be taken as and when necessary, thereby keeping the strategic objective clearly in focus.

It is hoped that this report further informs the USACE of the integrated water resource management plan of the region and identifies where additional assistance may be required. Taking the interests and capabilities of the USACE on the one hand, and the consideration of the needs/plans of the SADC Water Division on the other, it is envisaged that proposals for the engagement of the USACE to assist SADC can be developed further. A thorough consultation with the SADC Water Division and other regional stakeholders is an imperative part of the process prior to identifying potential areas of assistance.

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