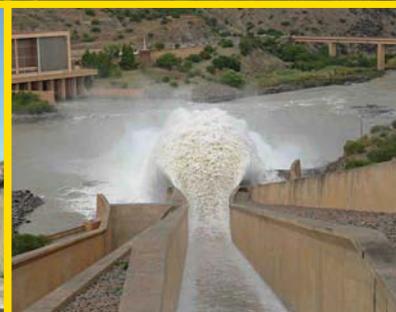




REGIONAL STRATEGIC ACTION PLAN

on Integrated Water Resources Development
and Management

Phase IV



Watering Life Together, Forever

RSAP IV - (2016 – 2020)

**Regional Strategic Action Plan
on Integrated Water Resources Development and Management Phase IV**

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REGIONAL STRATEGIC ACTION PLAN
on Integrated Water Resources Development and Management
Phase IV

FOREWORD

While 71% of the earth's surface is covered by water, only 0.01% of all available water comes from renewable fresh water resources accessible in lakes and rivers. As water is such a scarce and finite resource we need to use it sparingly and support all endeavours that protect and sustain it. Not only does **water sustain life**, it is **an engine and catalyst for socio-economic development**. As the SADC Region is **making strides towards industrialisation**, **good quality water** is key to play the pivotal role in supporting the value chain development.



The aspirations of the SADC region's people as enshrined in the SADC Treaty calls for **peace and stability, regional economic integration and poverty eradication**. While pessimists have already predicted that "the next wars will be on water", the SADC region is saying "**No**"; instead, **water is perceived as an instrument for peace and stability**. The SADC water sector has been seen to play a major role in promoting transparency, dialogue and very high degrees of cooperation among Member States. The establishment of river basin governing institutions through cooperation agreements among others in the Okavango (OKACOM), Orange-Senqu (ORASECOM), Limpopo (LIMCOM), Cuvelai (CUVECOM) and the Zambezi (ZAMCOM) basins is testimony to this high degree of cooperation working as one family.

As I present the fourth Regional Strategic Action Plan (RSAP IV) on Integrated Water Resources Development and Management 2016 – 2020, I'm delighted to inform our readers that our **region's commitment to cooperation has recently earned SADC the highest rating in the world with a score of 100 out of 100**. This global comparison of indicators on water cooperation, termed the **Water Cooperation Quotient Index 2015**, was prepared and released by the international think-tank, Strategic Foresight Group (SFG).

This fourth phase of the SADC Water Programme gives effect to the SADC strategic framework, the **Regional Indicative Strategic Development Plan (RISDP)**. To ensure that it contributes to the SADC Agenda of regional integration and poverty eradication, its **focus is on the development of water infrastructure in the region** to improve the assurance of water supply for domestic-, industrial-, energy- and food security. Further, the programme's start coincides with the announcement of the United Nations' Sustainable Development Goals (SDGs).

I hereby invite all Member States and Partners to support this programme for the region's prosperity, attainment of the SADC Goals and SDGs.



*Dr. Stegomena Lawrence Tax
Executive Secretary
Southern African Development Community*

PREFACE

Southern Africa is still battling with challenges of water insecurity. These are exacerbated by limited financial capacity in an environment of climate-induced pressures and an ever increasing water demand. **Approximately 40% of the region's people still do not have access to safe drinking water while about 60% have no access to improved sanitation facilities.** Water insecurity and such poor sanitation and hygiene levels are a drawback to efforts on poverty reduction, economic growth and regional stability.



In line with the recent internationally adopted UN *Sustainable Development Goals (SDGs)*, especially the 6th Goal to **“ensure availability and sustainable management of water and sanitation for all”**, SADC is gearing herself to change the situation. The Regional Infrastructure Development Master Plan (RIDMP) and supporting strategies aim at turning around this undesired state of affairs; targeting **to increase access levels to at least 75% by 2027 for both safe drinking water and sanitation and to increase land under irrigation from the current 7% of irrigable land to 20%.**

With water storage still at about 14% of the annual renewable water resources, clearly SADC is still vulnerable to water, energy and food insecurities. The recent drought of 2014/2015 and 2015/16 which affected a sizeable number of SADC countries is an attestation of that weakness. Lessons learnt from this and previous calamities are the **need for a stronger collaboration amongst the three sectors (Water, Energy and Food) by adopting joint planning and implementation of programmes through the Nexus Approach.** Possible nexuses for consideration include: (a) water and sanitation, (b) water and energy, (c) water and food security, (d) water and industrial development, (e) water and services, (f) water, energy and food security, and (g) water, land and food security. This is a clear demonstration that **Investing in Water Development has a multiplying effect on socio-economic development** directly and through the water influenced sectors.

This fourth phase of the **SADC Regional Strategic Action Plan (RSAP IV) of the water sector** is a five year programme scheduled to run from 2016 to 2020. The RSAP IV **has been developed through a vigorous consultative process where all Member States of SADC held three-day national workshops to provide input to the formulation process.** These were consolidated and validated during the regional multi-stakeholder workshop held in Windhoek, Namibia in September 2015.

The **RSAP IV is the implementation plan for the water component of the Regional Indicative Strategic Development Plan (RISDP)**, a blue print of SADC programmes. It is also a **strategic plan to implement the water chapter of the Regional Infrastructure Development Master Plan (RIDMP).** Like its predecessor (RSAP III), the **RSAP IV focus is on water infrastructure development** to enhance water security and increase resilience against Climate Variability and Change. This will put water to play its rightful role of being a catalyst and engine for development while contributing to the four goals of SADC: **Regional Integration, Peace and Stability, Industrialisation, and Poverty Eradication.**

To effectively respond to the region's challenges, the RSAP IV proposes a suit of participatory and delivery approaches to water and services such a **nexus approaches, indigenous knowledge-based solutions, disaster risk management-based systems, climate resilience building, blending both built and ecological infrastructural solutions, ground-surface water integrated planning and development and others.**

Allow me therefore to invite you to join the SADC Secretariat's Directorate of Infrastructure and Services in its endeavour to deliver the implementation of this Plan for the enhancement of the lives of all SADC citizens. **The time to act is now.**



Dr. Thembinkosi Mhlongo
Deputy Executive Secretary – Regional Integration
Southern African Development Community

ACKNOWLEDGEMENTS

The SADC Secretariat would like to express its gratitude and thanks to all the stakeholders who contributed to the processes of developing this fourth phase of the SADC Water Programme, commonly known as the Regional Strategic Action Plan (RSAP IV) on Integrated Water Resources Development and Management (2016-2020).

The Secretariat is thankful to all SADC Member States for demonstrating their interest and commitment in supporting RSAP IV formulation process by dedicating three days to their respective SADC national workshops (SADC Water Weeks). SADC National Water Weeks were conducted to gather input towards the formulation of the RSAP IV between March and September 2015 in all the 15 Member States. In all the Member States, the SADC Water Weeks were officially opened by very senior officials in the governments at the level of Minister or Deputy Minister responsible for water, and by the Deputy Prime and Prime Minister in the case of Mauritius and Madagascar respectively.

The support from Waternet who convened a Regional Consultative Meeting on the Water Research Agenda as an input to the RSAP IV, and Water Aid who financed preparatory Youth Water Forums in some Member States and other national Private Sector institutions which supported the National consultation processes is greatly appreciated. The same goes to the Swiss Agency for Development and Cooperation (SDC) who supported the Regional Water Youth Workshop which provided vital input to the RSAP IV on youth involvement, through the SADC Youth Desk under the Directorate of Social and Human Development, and Special Programme of SADC Secretariat.

The Secretariat would like to thank the International Cooperating Partners (ICPs) who guided the process through the Water Strategy Reference Group based on the outcomes of the mid-term review of the RSAP III; and the regional experts who participated in the think-tank and drafting sessions of the RSAP IV including those who participated in the validation sessions during the 6th SADC Multi-stakeholder Dialogue in Windhoek, Namibia which was attended by more than 200 participants are equally appreciated.

Gratitude and appreciation go to the main sponsor for the SADC Multi-stakeholder Dialogue, the Danish International Development Agency (DANIDA), and other sponsors including the United States Agency for International Development (USAID) through the Resilience in the Limpopo River Basin Program (RESILIM) and the UK Department for International Development (DFID) through the Climate Resilient Infrastructure Development Facility (CRIDF).

In a special way, the SADC Secretariat would like to express its sincere appreciation and gratitude to the German Federal Ministry for Economic Cooperation and Development (BMZ) in delegated cooperation with the Government of the United Kingdom of Great Britain and Northern Ireland, acting through the Department for International Development (DFID), and the Government of the Commonwealth of Australia, through the Department of Foreign Affairs and Trade (DFAT) for providing financial and technical support to the SADC National Water Weeks as well as the development and publication of this document. Special thanks also go to the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) who managed the tri-laterally funded programme and provided technical support to the SADC Water Programme.

The process of developing the RSAP IV was made possible through collaborative efforts of the SADC Secretariat staff in the Water Sector of the Directorate of Infrastructure and Services, and the Global Water Partnership Southern Africa (GWP-SA). The SADC secretariat would like to thank the teams from the SADC Water Sector and GWP-SA who tirelessly worked on all processes leading to the production of the RSAP IV.

*SADC Secretariat
Gaborone, Botswana
April 2016*

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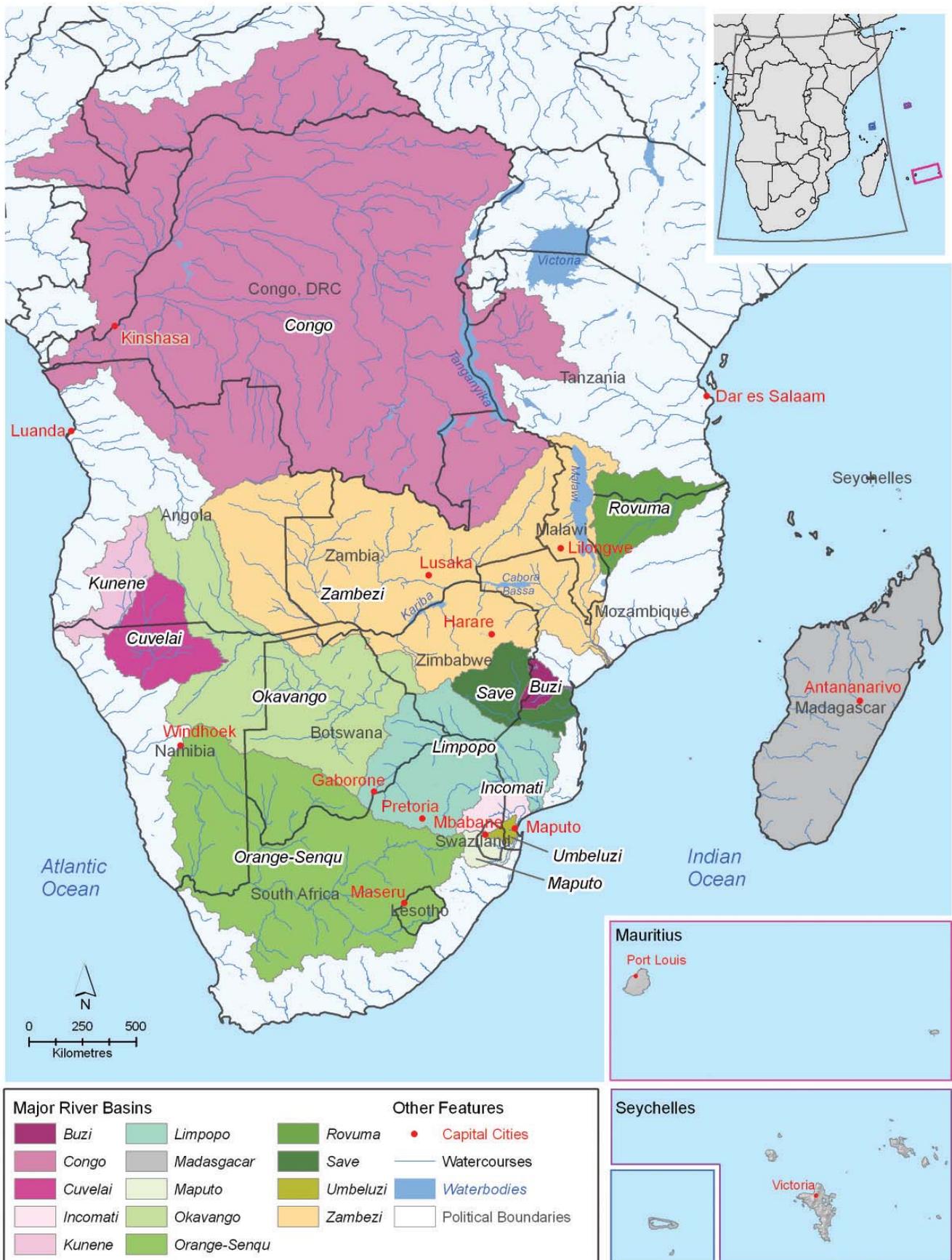
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LIST OF ACRONYMS

AMCOW.....	African Ministers Committee on Water
ARWR	Annual Renewable Water Resources
CICOS	International Commission of the Congo-Oubangui-Sangha Basin
CoPs	Community of Practice
CUVECOM.....	Cuvelai River Basin Commission
DRR	Disaster Risk Reduction
EAW.....	Economic Accounting of Water
FANR	SADC Food, Agriculture and Natural Resources Directorate
GDP.....	Gross Domestic Products
GFPs.....	Gender Focal Points
GIS.....	Geographic Information System
GMI	Ground Water Management Institute
GWP-SA.....	Global Water Partnership Southern Africa
HYCOS	Hydrological Cycle Observing Systems
I&S	SADC Infrastructure and Services Directorate
IAS.....	Invasive Alien Species
ICPs	International Cooperating Partners
IKS.....	Indigenous Knowledge Systems
IPS.....	Inter Press Services
IUMP	Industrial Upgrading and Modernization Programme
IWRM	Integrated Water Resources Management
LIMCOM	Limpopo Watercourse Commission
ME&R.....	Monitoring, Evaluation and Reporting
MoU.....	Memorandum of Understanding
NFGs.....	National Focus Groups
NGO	Non-Governmental Organisation
OKACOM.....	Okavango River Basin Water Commission
ORASECOM	Orange-Senqu River Commission
OSIC	Oceanic States Institutions for Cooperation
PIDA	Programme for Infrastructure Development in Africa
PPP.....	Public Private Partnership
RBOs	River Basin Organisations
RIDMP	Regional Infrastructure Development Master Plan
RISDP	Regional Indicative Strategic Development Plan
RSAPs.....	Regional Strategic Action Plans
RWP	Regional Water Policy
RWS	Regional Water Strategy
SADC	Southern African Development Community
SANWATCE	Southern African Network of Water and Technology Centres of Excellence
SAP.....	Strategic Action Plans
SFG	Strategic Foresight Group
STEM	Science, Technology, Engineering and Maths
SWIs	Shared Watercourse Institutions
TDA.....	Transboundary Diagnostic Analysis
UN SDGs.....	United Nations Sustainable Development Goals
WASH.....	Water, Sanitation and Hygiene
WEF	Water - Energy and Food
WLF	Water - Land - Food
WRFSA	Water Research Fund for Southern Africa
WRTC	Water Resources Technical Committee
ZAMCOM	Zambezi Watercourse Commission

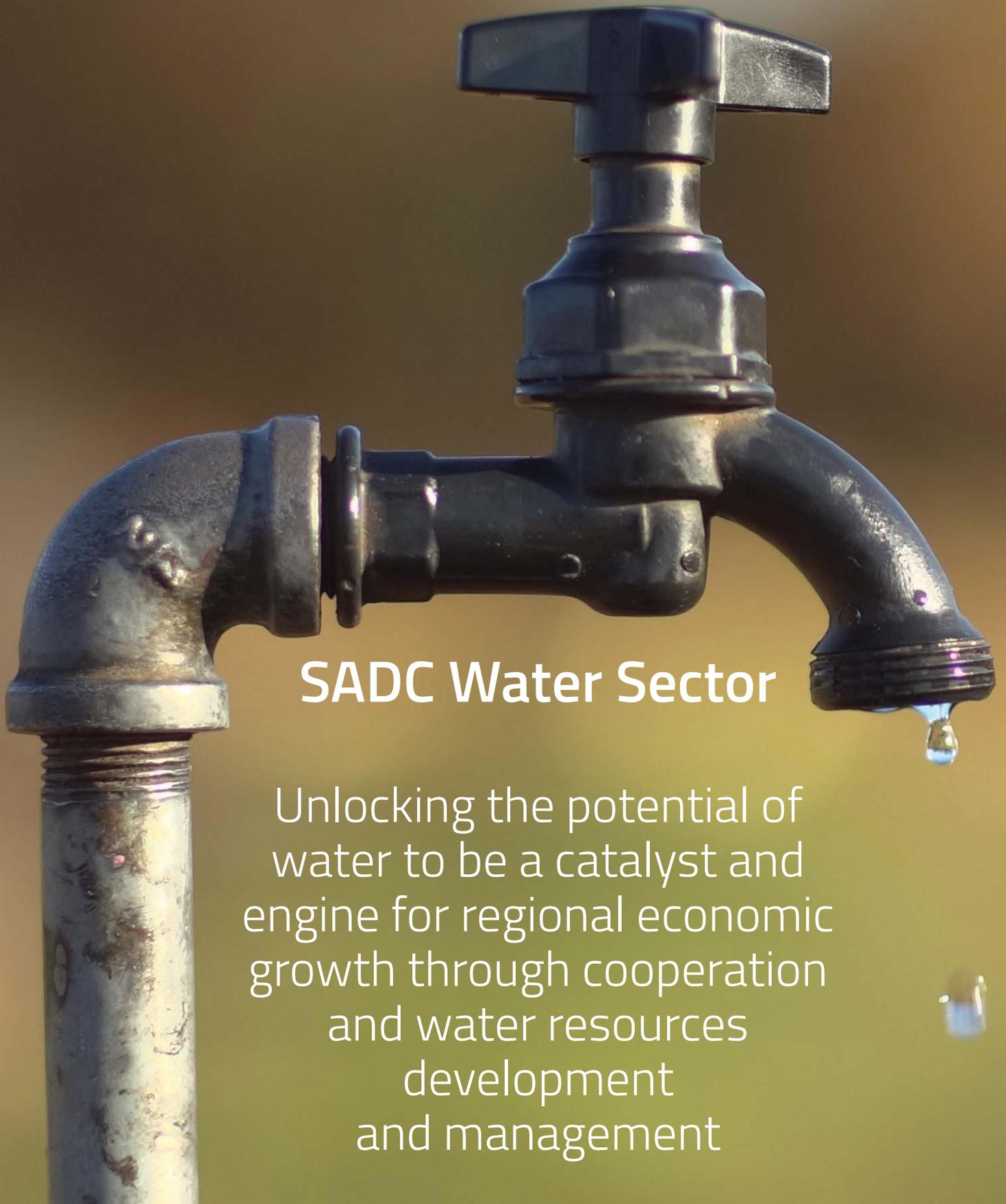
SADC Political Boundaries and Major River Basins



CHAPTER 1: INTRODUCTION

SADC Water Sector

Unlocking the potential of water to be a catalyst and engine for regional economic growth through cooperation and water resources development and management



1.1. BACKGROUND

The water resources of the SADC region play a vital and important role in the maintenance of the rich diversity of the region's natural ecosystems, and for the region's sustainable economic and social development.

The SADC Member States adopted the Revised Protocol on Shared Watercourses in 2000, in recognition of the need for a regional legal framework to guide sustainable resource management and development. The principles and requirements of the Revised Protocol are operationalised through the SADC Regional Strategic Action Plans (RSAPs), which are being implemented in a phased manner to reflect the evolving needs and capacities of the region. SADC is now implementing its fourth RSAP.

1.2 WATER COOPERATION QUOTIENT

The Water Cooperation Quotient is a barometer used to measure the extent of cooperation in a watercourse, taking into account amongst other things, prospects of war, peace and stability. In a nutshell, it can be linked to the degree of unlocking the potential of water to be used as an engine and catalyst for development.

The Strategic Foresight Group (SFG), an international independent evaluation group, has assessed the water cooperation quotient in 184 countries and their 205 shared watercourses. The Southern African Development Community (SADC) has been rated highest in the world – with a score of 100 out of 100.

The findings of the SFG with regards to the prospects of war, peace and stability in a watercourse are in line with the findings of Professor Jon Martin Trondalen of the Compass Foundation, in his book titled "Conflict Prevention and Peace Dividends through Cooperation on Transboundary Water Management in SADC (2011):"

Despite such a refreshing recognition from international communities, there is still need to sustain the cooperation efforts and interventions that will contribute towards achievement of the main goals of SADC.

1.3 THE SADC VISION AND THE SADC WATER VISION

The formulation and objectives of the RSAPs are to contribute towards the realisation of both the SADC water vision and the broader SADC vision. The UN Sustainable Development Goal (SDG) 6 which seeks to "ensure the

availability and sustainable management of water and sanitation for all", relates well to the SADC Water Vision. Figure 1.1 depicts the SADC and the SADC water sector visions.

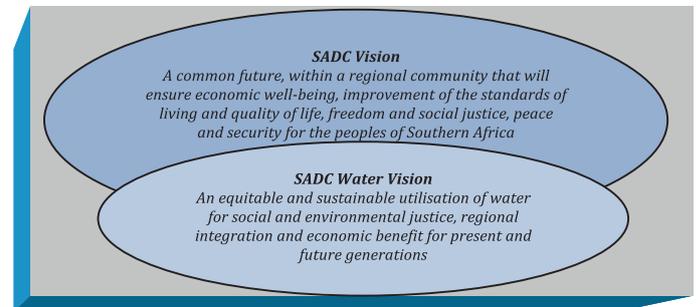


FIGURE 1.1: THE SADC VISION AND THE SADC WATER VISION

1.4 STATUS OF WATER RESOURCES AVAILABILITY AND SANITATION PROVISION IN SADC MEMBER STATES

The current status of water resources availability, utilisation and related infrastructure development in the SADC region can be summarised as follows:

- Annual rainfall significantly varies in quantity and distribution, and consequently, water resources availability and usage across the SADC region also varies (Figures 1.2 and 1.3).
- Fifteen major river basins are shared by at least two countries.
- Of the water resources currently abstracted, 77 percent is used for irrigation, 18 percent for domestic purposes whilst five percent is used by industry (see Figure 1.3).
- Seventy percent of SADC's rural population relies on groundwater supplies.
- If the storage of Kariba and Cahora Bassa dams is included, 14 percent of the total annual renewable water resources (ARWR) in the SADC region are currently stored for various uses, an amount which is very low compared to 70-90 percent in most industrialised countries (SADC 2012).
- There is about 50 million hectares of irrigable land available within the SADC region of which only 3.4 million hectares (seven percent) is currently irrigated (SADC 2012).
- Of SADC's population of about 280 million people, 40 percent of the population has no access to an adequate safe drinking water supply, whilst 60 percent has no access to adequate sanitation services.

Figure 1.3 also clearly indicates that water use efficiency measures should be focused more on the agricultural sector, as it is the largest water consumer in the majority of the SADC Member States. Some of the above statistics are summarised in Table 1.1 and Figure 1.4, comparing African continental, world averages and the developed world status.

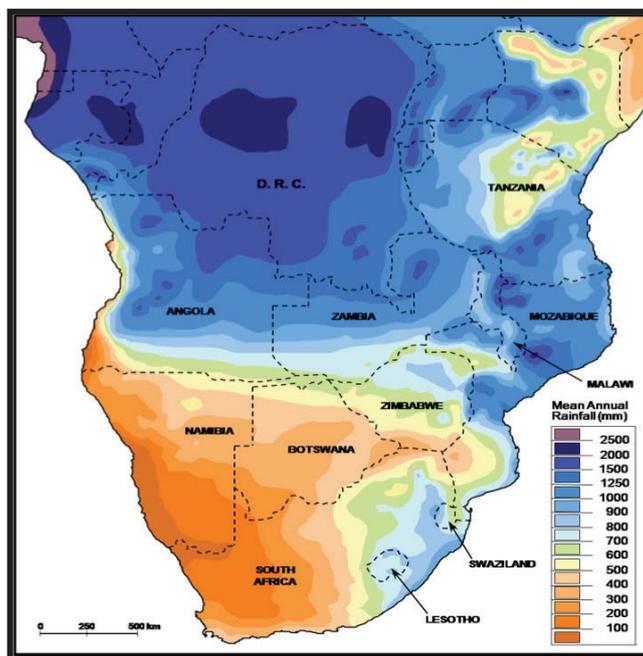


FIGURE 1.2: MEAN ANNUAL RAINFALL DISTRIBUTION ACROSS THE MAINLAND SADC REGION (SOURCE: SADC 2007.)

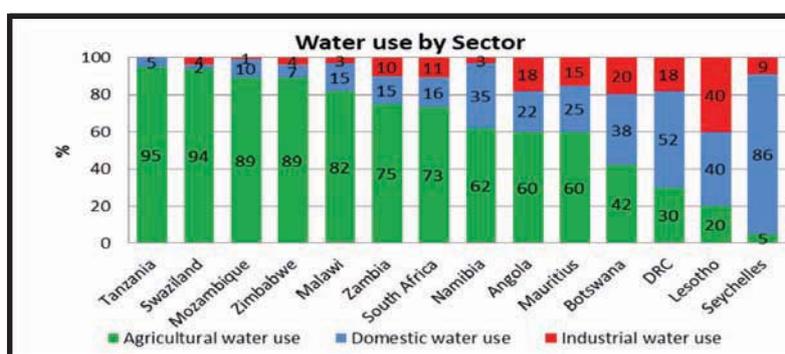


FIGURE 1.3: WATER USE BY MAJOR ECONOMIC SECTORS. (SOURCE: SADC 2012.)

SECTOR	SADC STATUS	AFRICAN CONTINENT	WORLD AVERAGES	DEVELOPED WORLD STATUS
Water Abstraction	170m3/capita/year	251m3/capita/year	570m3/capita/year	1 330m3/capita/year
Surface water storage	14% of ARWR stored	14% of ARWR stored	25% of ARWR stored	70% to 90% of ARWR stored
Irrigated Land	7% irrigated of available irrigable land	20% irrigated of available irrigable land	20% irrigated of available irrigable land	70% irrigated of available irrigable land

TABLE 1.1: SELECTED BENCHMARKS/INDICATORS FOR COMPARISON OF SADC WATER SECTOR'S STATUS WITH OTHER COMPARATORS. (SOURCE: SADC 2012.)

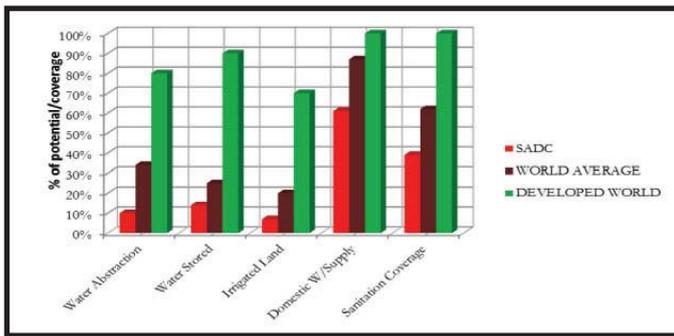


FIGURE 1.4: SELECTED BENCHMARKS/INDICATORS FOR COMPARISON OF SADC WATER SECTOR'S STATUS WITH OTHER COMPARATORS. (SOURCE: SADC 2012.)

1.5 CONTEXT

The RSAP IV builds on the work of the previous RSAPs, with a continued focus on infrastructure development. The successful implementation of the RSAP IV will contribute towards, and assist SADC Member States to realise the achievement of higher level regional, continental and international plans, strategies and goals such as the SADC Treaty Goals; the Water Chapter of the SADC Regional Infrastructure Development Master Plan (RIDMP); the Programme for Infrastructure Development in Africa (PIDA); and the United Nations Sustainable Development Goals (UN SDGs).

1.5.1 RATIONALE FOR A REGIONAL APPROACH TO BASIN MANAGEMENT

The SADC regional approach has shown great success in facilitating negotiations on river basin management.

All shared river basins – 13 located fully within the SADC Region – have adopted a cooperation framework in compliance with the SADC Protocol on Shared Watercourses.

Key features and advantages of the regional approach include:

- Reference framework: Regional instruments such as the SADC Protocol on Shared Watercourses provide a framework and starting point for the negotiation of river basin agreements.
- Scope of cooperation: The adoption of a regional approach extends the scope of cooperation beyond

the water sector and provides more opportunities to share benefits and trade-offs amongst Member States.

- Honest broker: When requested by Member States, the SADC Secretariat can act as a neutral mediator to facilitate negotiations in river basins.
- Harmonisation: The alignment of regional and basin governing instruments facilitates the sharing of best practices and lessons learnt amongst RBOs/SWIs.
- Accountability and responsibility: RBOs/SWIs are not only accountable to their respective Riparian States and funding agencies but also to SADC for reporting purposes as stipulated in the Revised Protocol on Shared Watercourses.
- Competiveness: While the spirit of cooperation is promoted amongst RBOs/SWIs, they also have to achieve results. RBOs/SWIs performing poorly are less likely to receive support compared to the most successful ones.
- Visibility: International Cooperating Partners (ICPs) supporting SADC are in fact supporting 15 countries, despite the level of their intervention (e.g. one specific river basin). Through the regional approach, the outputs (lessons learnt) of such support are shared with the other basins. This increases visibility at regional, river basin and national levels.
- ICP coordination: The information on all activities supported by ICPs is shared with all stakeholders to ensure equitable and efficient distribution of financial resources as well as to avoid duplication, conflict and cherry-picking, leaving some basins unfunded.
- Sharing of Best Practices and Experiences: It is generally difficult for one basin to claim they are doing better and would like to share with other basins. Facilitating such a process by neutral entity with mandate given by the Protocol makes it much easier.
- Implementation of Nexus related interventions: To fully realise the role of water as an engine and catalyst for development, the nexus approach is vital whereby other economic development sectors (Agriculture, Trade, Tourism, Finance etc) complete value chain leading to realisation of the SADC goals. A regional approach in this is crucial considering that economic undertakings are not aligned with the basin boundaries.

Though a great deal of progress has been achieved with the establishment and strengthening of RBOs/SWIs in the SADC region, much remains to be done to consolidate their role and strengthen their capacity to carry out that role. In recognition of this evolving situation, the involvement of the SADC water division in RBO/SWI development will diminish as RBOs/SWIs get established and strengthened. At that stage, the support provided by the SADC water division, as detailed in Section 6.1.2, will be limited to the monitoring of the Protocol, providing strategic guidance and the sharing of best practices amongst RBOs/SWIs.

1.5.2 RSAPS ARE THE IMPLEMENTATION STRATEGIES FOR THE REGIONAL WATER POLICY AND STRATEGY

The SADC Regional Water Policy's (RWP) objective is to provide a framework for sustainable, integrated and coordinated development, utilisation, protection and control of national and transboundary water resources in the region. This is important for the promotion of socio-economic development and regional integration as well as improving the quality of life of all people in the region (SADC 2006).

The Regional Water Strategy (RWS) is based on the RWP and its objective is to provide a framework for the implementation of the policy. Whilst the RWP deals with the "What" on regional water issues, the RWS deals with the "How", "Who" and "When" in the implementation of the policy (SADC 2007).

The Regional Strategic Action Plans (RSAPs) on the other hand, are the implementing tools/instruments for both the SADC RWP and the RWS.

1.5.3 RSAP I, II, III AND IV: LINKAGES, FORMULATION PROCESS AND ACHIEVEMENTS

The first SADC Regional Strategic Action Plan (RSAP I: 1999 – 2004) focused on providing an enabling environment and successfully achieved this objective. RSAP II (2005 – 2010) focused on infrastructure development, while continuing to strengthen the enabling environment and also attained its objective. RSAP III was designed to provide an effective and dependable framework contributing to poverty reduction, regional integration, peace and security and socio-economic development.

The goal of the RSAP III was to strengthen the enabling environment for regional water governance, water

management and infrastructure development through the application of integrated water resources management. RSAP III built on the work of RSAP I and II – of ensuring that the enabling environment is sustained – but focusing more on infrastructure development. A review and evaluation of the RSAP III in 2014 revealed that:

- significant progress had been achieved in strengthening RBOs with the establishment of new Secretariats such as LIMCOM and ZAMCOM;
- the SADC revised protocol on shared watercourses had become well known within the SADC Region and is being institutionalised in Member States; and
- good progress had been made in establishing IWRM demonstration projects.

The review of the RSAP III in 2014 indicated that Member States preferred that the SADC Secretariat consult them individually through the framework of the SADC Water Weeks, as a way of providing input into the fourth phase of the SADC Water Programme (RSAP IV: 2016 -2020). A further recommendation was for the "Theory of Change" to be applied in the conceptualising and formulation of the RSAP IV, in order to facilitate better monitoring and evaluation of the RSAP IV.

These recommendations were followed through and implemented, thus facilitating and resulting in the current RSAP IV. Further to these recommendations, the shift in global discourse towards the water-energy-food nexus and other such nexuses – within the context of climate change, economic growth SADC and other emerging issues – also informed and influenced the process of formulating the RSAP IV.



1.5.4 EMERGING ISSUES: CLIMATE CHANGE, LOCAL AND INDIGENOUS KNOWLEDGE SYSTEMS, INDUSTRIALISATION, NEXUS APPROACHES, GENDER MAINSTREAMING

Issues related to climate change, climate variability and climate proofing need to be continuously addressed in the SADC water sector regional plans and programmes. This can be achieved through incorporating and mainstreaming local and indigenous knowledge systems (IKS), so as to reduce and mitigate the negative impacts, as well as being part of disaster risk management.



The SADC Extra-Ordinary Summit of 29 April 2015 approved the SADC industrialisation strategy and roadmap and reaffirmed the importance of industrial development in poverty alleviation and the economic emancipation of the people of the region. This industrialisation policy and strategy needs supporting programmes in the RSAP IV for it to be realised.

Water quality issues relate to both surface and groundwater, particularly in shared watercourses and aquifers respectively. With SADC adopting an industrialisation strategy and roadmap for accelerated industrial and economic growth for the region, care should be taken to maintain and indeed, improve the quality of the sources of water supply that will support this accelerated industrialisation growth and other uses.

There is need for more focused water research conducted by SADC's researchers and institutions, including WARFSA. The research should be demand driven resulting in patenting and commercialisation.

It is important that gender issues are mainstreamed in the water sector programmes, as clearly articulated in the SADC's Gender Protocol, Policy and Strategy as well as in the SADC Regional Water Policy statement 10.2.1 which states that "Women are recognised as playing a central role in the provision, management and safeguarding of water and shall be fully involved in the development and implementation of policies, processes and activities at all levels." These instruments require that all SADC Secretariat Directorates and Units, and all sectors in Member States integrate gender issues into their business plans as an integral part of their work. The SADC Secretariat has developed a gender mainstreaming programme which needs to be supported by the water sector.

Nexus approaches are becoming the way to go if SADC is to achieve its developmental goals. Sector approaches are robbing the region of cost effective mechanisms to implement programmes. Multi-sector approaches have shown greater benefits especially in multi-purpose uses of dams as opposed to single purpose use as well as when applied in the implementation of IWRM principles and practices. There are a number of water related nexuses where water plays a catalytic role in the final developmental agenda.



1.5.5 CONTINENTAL AND INTERNATIONAL CONVENTIONS AND AGREEMENTS

The SADC Member States are signatories to a number of continental and international Conventions and Agreements and also subscribe and commit to several agreed positions with regards to the provision of water and sanitation services. Examples of such include:

1. The African Ministers Committee on Water (AMCOW) has come up with a policy and strategy for the involvement of youth in water and sanitation interventions, which the SADC region has to incorporate in its programmes and plans.
2. The 17 UN Sustainable Development Goals (SDGs) are a new, universal set of goals, with targets and indicators that UN Member States will be expected to use to frame and guide their agendas and policies over the next 15 years. Goal 6 relates directly to the water sector and seeks to “ensure availability and sustainable management of water and sanitation for all.”
3. The 19 UN Groundwater Articles contained in the Law of Transboundary Aquifers were adopted through a resolution of the 63rd Session of the UN General Assembly on 11 December 2008. The resolution encourages the States concerned ‘to make appropriate bilateral or regional arrangements for the proper management of their transboundary aquifers, taking into account the provisions of the Articles.’
4. The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses. The human right to water places the main responsibilities upon governments to ensure that people can enjoy “sufficient, safe, accessible and affordable water, without discrimination” (UN, 2010).

While most SADC Member States have at least ratified one human rights convention which explicitly or implicitly recognizes this right, the interpretation of this right varies amongst and within the SADC Member States. There is therefore need to come up with some common understanding of this very important human right to water to enable governments and their citizens to fully appreciate their obligations and rights.

1.5.6 WATER RESOURCES INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT IN SADC

In 2012, the SADC Member States adopted the SADC Regional Infrastructure Development Master Plan (RIDMP) comprising of six sectors: water, energy, transport, tourism, meteorology and telecommunication. The primary objective of the RIDMP is to define the minimum but ultimate regional infrastructure development requirements and conditions to facilitate the implementation and realization of water-related infrastructure development projects by year 2027. The water resources infrastructure development imperative is thus guided by the contents of the Water Chapter of the RIDMP.

1.5.7 CONTRIBUTION OF WATER RESOURCES DEVELOPMENT AND MANAGEMENT TO THE ACHIEVEMENT OF THE SADC VISION

It is usually difficult to directly link sustainable water resources development and management to the well-being of human beneficiaries and national economic growths. However, investments in the development, management and delivery of sustainable water supply systems have profound catalytic developmental impacts to other sectors such as agriculture, energy, manufacturing, health, education and industry. It is in light of this that the programmes of the RSAP IV have been conceived and formulated.

CHAPTER 2: ENABLING ENVIRONMENT

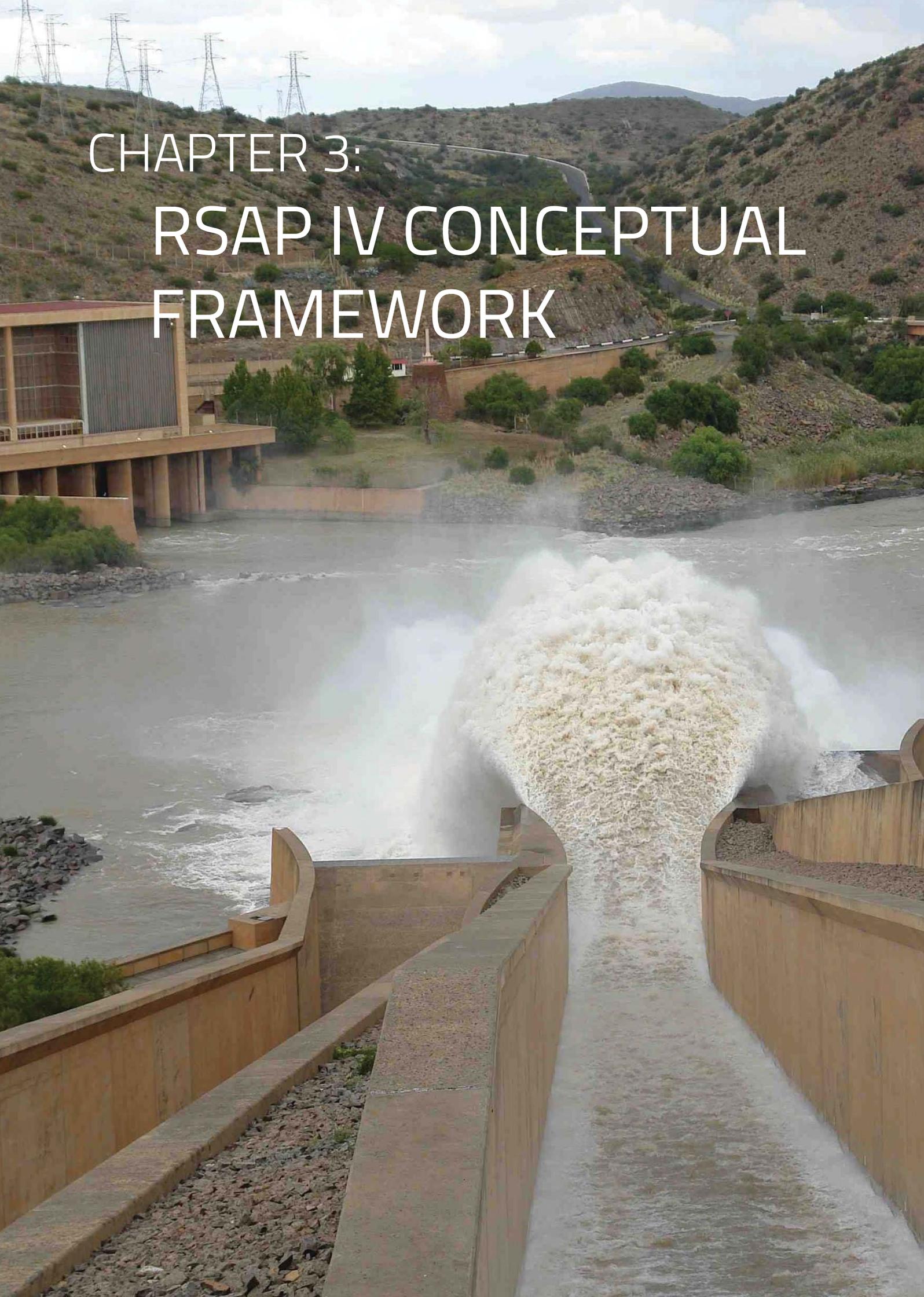


SADC has put in place regional regulatory policy, strategies and plans that provide the enabling environment for the implementation of the SADC water sector programmes and plans. These are summarised in Table 2.

SADC DOCUMENT	BRIEF SUMMARY
The SADC Declaration and Treaty	The SADC Treaty, which governs the Regional activities of SADC and its Member States, came into force on 30 September 1993.
The SADC Regional Indicative Strategic Development Plan (RISDP)	The RISDP outlines the key interventions necessary to deepen regional integration and reduce poverty on a sustainable basis over the period 2005 to 2020. The RISDP was formulated in March 2001 and was adopted and approved in August 2003. In order to ensure that the overarching objectives of poverty eradication and regional integration were more focused, the RISDP was revised in 2007 and again in April 2015 to review the period 2015 to 2020.
The SADC Revised Protocol on Shared Watercourses (2000)	The overall objective of the SADC Revised Protocol on Shared Watercourses, which came into effect in 2003, is to foster closer cooperation for judicious, sustainable and coordinated management, protection and utilisation of the 15 SADC shared watercourses, and advance the SADC agenda of regional integration, poverty alleviation and economic development.
The SADC Regional Water Policy (2005)	The SADC Regional Water Policy aims at providing a framework for sustainable, integrated and coordinated development, utilisation, protection and control of national and transboundary water resources in the SADC Region, for the promotion of socio-economic development and regional integration and the improvement in the quality of life of all people in the region.
The Southern African Vision for Water, Life and the Environment in the 21st Century (2000)	The SADC Vision for Water, Life and the Environment in the 21st Century is: Equitable and sustainable utilisation of water for social, environmental justice, and economic benefit for present and future generations.
The SADC Regional Water Strategy (2006)	The Regional Water Strategy (RWS) is based on the Regional Water Policy (RWP) and provides a framework for the implementation of the RWP. Whilst the RWP deals with the "What" on Regional water issues, the RWS deals with the "How", "Who" and "When" in the implementation of the RWP.
The SADC Regional Awareness and Communication Strategy for the Water Sector (2009)	The ultimate goal of the SADC regional awareness and communication strategy for the water sector is to improve awareness and understanding on water issues and initiatives in the SADC region, contributing to poverty eradication and regional integration.
The SADC Regional Strategic Action Plans: I, II & III	The main objective of the RSAP I (1999 to 2004) was to create an enabling environment for joint management of Regional water resources. The major change between RSAP I and RSAPII (2005-2010) was the emphasis put on infrastructure development. The goal of the RSAP III (2011-2015) was to strengthen the enabling environment for Regional water resources governance, management and development through the application of integrated water resources management at the regional, river basin, Member States and community levels.
The SADC Guidelines for Strengthening River Basin Organisations (2010)	Published in 2010, the SADC Guidelines for Strengthening River Basin Organisations covers four areas: establishment and development, environmental management, funding and financing and stakeholder participation.
Climate Change Adaptation in SADC: a Strategy for the Water Sector (2011)	The SADC climate change adaptation strategy for the water sector was launched in November 2011. The overall goal of the strategy is to improve climate resilience in SADC.
The SADC Regional Infrastructure Development Master Plan (RIDMP) (2012)	The primary objective of the SADC Regional Infrastructure Development Master Plan (RIDMP) is to define the minimum but ultimate regional infrastructure development requirements and conditions to facilitate the implementation and realization of the key infrastructure in the water, energy, transport, tourism, meteorology and telecommunication sectors that will move forward the SADC agenda and enable the SADC region to realize its goal by year 2027: the attainment of an integrated regional economy on the basis of balance, equity and mutual benefit for all Member States.

TABLE 2: INSTRUMENTS FOR ENABLING ENVIRONMENT

CHAPTER 3: RSAP IV CONCEPTUAL FRAMEWORK





The key objective of the fourth phase of the SADC water programme is:

“To unlock the potential for water (and related resources) to play its role as an engine and catalyst for socio-economic development through water infrastructure development and management to support water supply and sanitation, energy, food security, and security from water related disasters with the ultimate goal of contributing towards peace and stability, industrialisation, regional integration and poverty eradication.”

In order to formulate the conceptual framework of the RSAP IV, and to ensure that the appropriate actions, activities and resources are well thought through, SADC formulated a theory of change to facilitate the identification of indicators for monitoring and reporting of the achievements of the RSAP IV Programmes and their contribution to the higher level SADC Treaty Goals, the African continental Programmes and UN Sustainable Development Goal 6. Figure 3 graphically depicts our “Theory of Change.”

3.1 THE THEORY OF CHANGE

To facilitate the adequate monitoring and evaluation of the RSAP IV, the “Theory of Change” approach was adopted in order to establish the appropriate indicators that would be used to assess the achievement of the programmes particularly in terms of the impacts and outcomes of the programmes’ interventions. It should be appreciated here that the impacts of successful provision of water and sanitation services usually manifest in various different forms that cannot only be quantified in terms of the initial water inputs or numbers. At times it can also be qualitatively assessed in terms of the improved quality of lives, livelihoods and indeed, sustained ecosystems.

Setting targets in such cases is difficult and developing a “Theory of Change” assists in such cases to indicate and assess achievement or impacts and outcomes of programmes.

BOX 1: THEORY OF CHANGE

What Is a Theory of Change?

A theory of change (TOC) is a tool for developing solutions to complex social problems. A basic TOC explains how a group of early and intermediate accomplishments sets the stage for producing long-range results.

A more complete TOC articulates the assumptions about the process through which change will occur and specifies the ways in which all of the required early and intermediate outcomes related to achieving the desired long-term change will be brought about and documented as they occur.¹

Steps to Create a Theory of Change

1. Identify a long-term goal.
2. Conduct “backwards mapping” to identify the preconditions necessary to achieve that goal.
3. Identify the interventions that your initiative will perform to create these preconditions.
4. Develop indicators for each precondition that will be used to assess the performance of the interventions.
5. Write a narrative that can be used to summarize the various moving parts in your theory.²

¹ Adapted from Anderson, A. (2005). *The community builder’s approach to theory of change: A practical guide to theory and development*. New York: The Aspen Institute Roundtable on Community Change.

² Adapted from www.theoryofchange.org

3.2 THE RSAP IV CONCEPTUAL FRAMEWORK

Figure 3 shows the Conceptual Framework and Overview of the RSAP IV and how it contributes to the SADC overall goals.

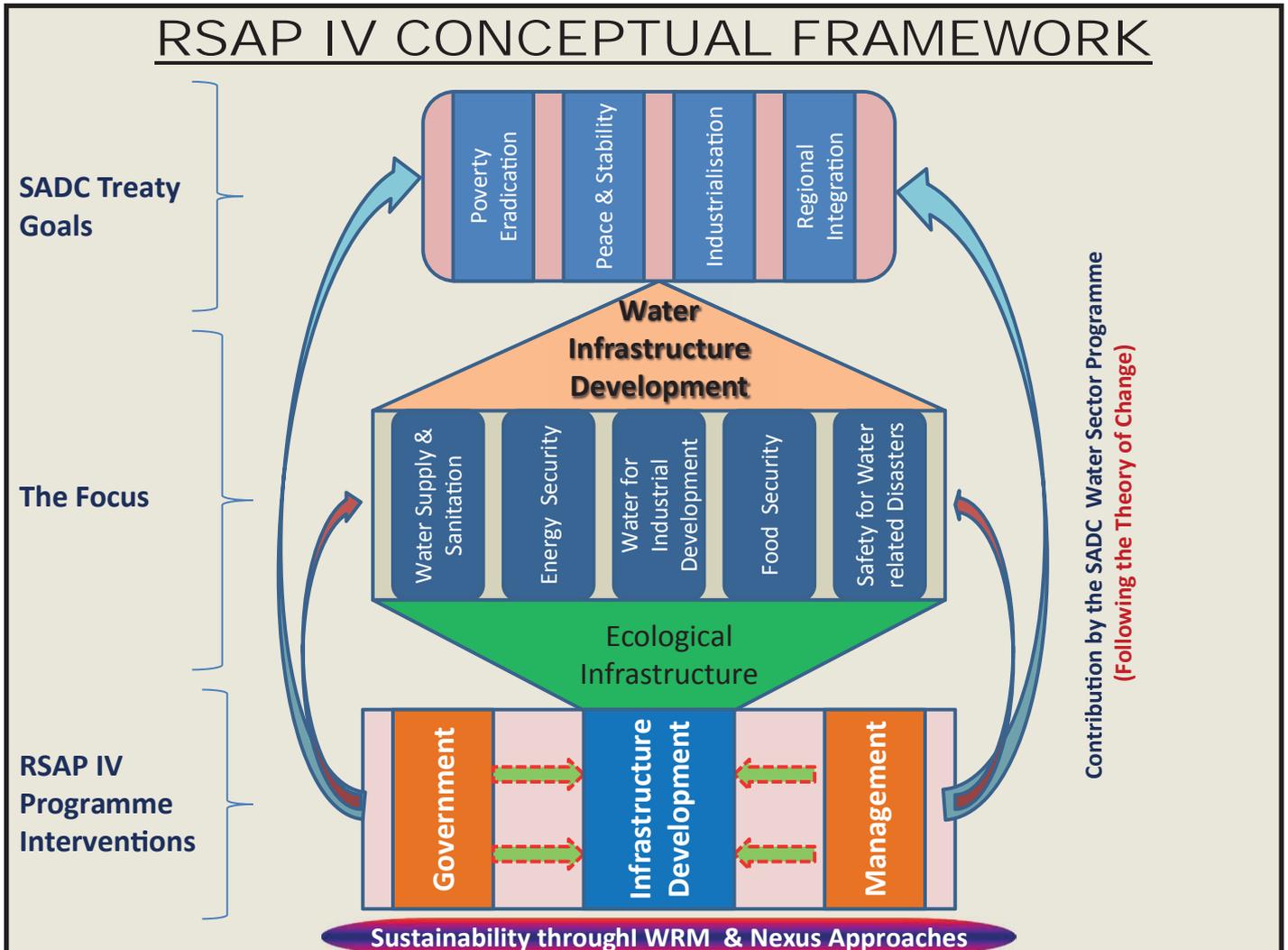


FIGURE 3: RSAP IV CONCEPTUAL FRAMEWORK

SADC used the "Theory of Change" approach to formulate and develop the conceptual framework of the RSAP IV. The overall objective of the RSAP IV programmes and interventions – whose cluster pillars are governance, infrastructure development and management and from which the focus areas are derived – is to contribute towards the achievement of the higher level SADC Treaty Goals of poverty eradication, peace and stability, industrialisation and regional integration.

To contribute towards the achievement of these goals, the RSAP IV's intervention focus will be to facilitate ecological and water infrastructure development. This will enable the provision of water supply and sanitation services, water for energy and food security, water for industrial development while enhancing the safety of communities and investments from water related disasters.

The RSAP IV conceptual framework cluster pillars are founded and anchored on a solid base provided by adopting and utilising the principles and good practices of IWRM and the use of nexus approaches.

3.3 STRATEGIC AREAS

The strategic areas of the RSAP IV remain the same as those for the RSAP III described water governance, infrastructure development and water management. Each intervention area and its sub-interventions graphically show qualitatively how the relative components fall into each of the three strategic areas.

3.3.1 WATER GOVERNANCE

The political, social, economic and administrative systems are put in place to develop and manage water resources at different levels of society. The systems that are put in place should be adaptive to changing circumstances. Good governance in its broader terms includes the principles of legitimacy, accountability, transparency and inclusiveness. Thus, good water governance systems articulate clearly the political, institutional and administrative practices, rules and regulations through which water sector decisions are taken and implemented.

3.3.2 INFRASTRUCTURE DEVELOPMENT

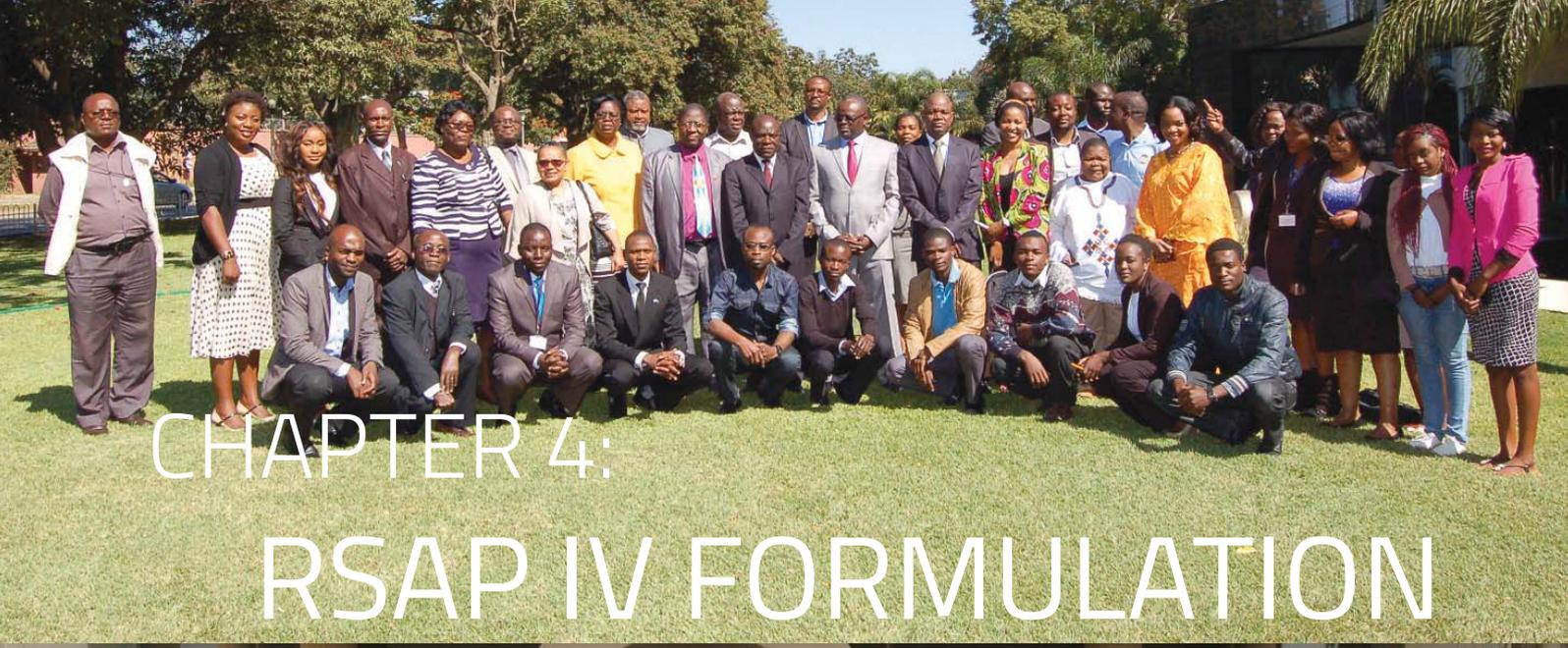
Water resources infrastructure is a critical component in the provision of sustainable water resource management

and services. For example, it is critical in mitigating impacts of climate change and variability, mitigating the variability of the water resource distribution in space and time, climate proofing, energy and food security and for data collection for information and improving the knowledge base. Infrastructure development is the process of developing, financing, implementing and operating infrastructure for irrigation, drainage, water supply and sanitation, hydro-power generation, flood management and many other purposes.

3.3.3 WATER MANAGEMENT

The activity of planning, developing, distributing, managing, and optimizing uses of water resources under defined water polices and regulations is part and parcel of water resources management. In the RSAP IV, interventions related to water resources management will include, but are not limited to, the development of IWRM strategic plans and development scenarios for shared watercourses and other river basins and the production of river basin monographs as part of baseline studies.





CHAPTER 4: RSAP IV FORMULATION PROCESS





4.1 STAKEHOLDER AND MEMBER STATES' CONSULTATIONS

The major input into the RSAP IV is undoubtedly the national consultation process (SADC Water Weeks). However, other guiding frameworks such as the SADC Regional Indicative Strategic Development Plan (RISDP) (as revised) have had huge influence in terms of streamlining the water programme in terms of its contribution to the overall SADC Goals of Peace and Stability, Regional Integration, Industrialisation and Poverty alleviation with the ultimate aim of its Eradication.

The SADC Water Weeks process generated a huge amount of information to develop the RSAP IV. There were also consultations to solicit inputs into the RSAP IV, through stakeholder dialogues and with ICPs.

4.2 REFERENCE GROUPS AND CORE GROUP

As part of the RSAP IV formulation process, two Reference Groups were formed consisting of SADC Regional experts identified for their expertise in the various identified programmes and associated intervention areas. The main objective of the Reference Group workshops was to review and improve the identified programmes by Member States and other stakeholders in terms of their relevance, efficiency and adequacies in meeting the SADC's Agenda.

The Core Group, on the other hand, consisted of the SADC Secretariat staff, the ICP water strategic reference group and the RSAP IV drafting consultants who met to review the RSAP IV drafting process and progress. The Core Group provided the quality assessment and assurance in the production of the RSAP IV.

4.3 PROGRAMME SELECTION CRITERIA

Programme selection criteria was developed and validated through demonstrations, consultations and validation by stakeholders including Member States. This resulted in the versions of programmes finally adopted for the RSAP IV.

4.4 RSAP IV APPROVAL PROCESS

The RSAP IV conceptual framework and draft RSAP IV document structure were approved by the SADC Sectoral Committee of Water Ministers in June 2015. This facilitated the population and further drafting of the RSAP IV.

The Draft RSAP IV document was presented to the regional stakeholders during the Regional Multi-stakeholder Water Dialogue for input and validation prior to its presentation to the WRTC members for final endorsement and adoption.





CHAPTER 5: PROGRAMME AND INTERVENTIONS

The RSAP IV provides focus for the SADC Water Sector over the next five years and aims at implementing priority interventions of the RWS. The RSAP consists of eight programmes, each contributing to the achievement of the RSAP strategic and operational objectives.

The RSAP is a dynamic strategy. While the RSAP goals and objectives should not change over time, the projects and interventions identified at this stage should remain flexible and adjusted as the context changes and results are achieved.

This section describes the scope of the eight RSAP IV programmes and outlines key interventions under each programme. The programmes are presented following the structure of the strategic framework, starting with programmes focussing on water governance, then on those contributing to infrastructure development and water management. Therefore the numbering of the programmes does not reflect any sequencing or prioritization process.



PROGRAMME 1: REGIONAL INSTRUMENTS FOR COOPERATION

OBJECTIVE: Strengthen the enabling environment for the coordinated management and development of water resources in the region

PRIORITY INTERVENTIONS

P1.1 MONITORING AND REPORTING ON THE IMPLEMENTATION OF RSAP IV, PROTOCOL, AND SDGS

There is need to undertake monitoring and reporting on the evidence of the contributions of the overall objective of the RSAP IV, priority interventions on programme objectives, and the objectives of both the regional water strategy and policy, the SADC Revised RISDP and Treaty Goals. This will be done through specific, measurable and feasible indicators on output and outcome levels. The activities include:

- a) RSAP IV
 - i. undertaking annual assessments and midterm reviews of the status of achievement of objective-indicators of the eight RSAP IV programmes;
 - ii. capture and reporting on the contributions of Member States and other entities to the objectives of the RSAP IV;
- b) Protocol
 - i. defining measurable indicators for assessing Protocol implementation.
 - ii. undertaking annual assessments of the status of implementation of the protocol using defined indicators, and reporting to SADC Council through SADC Water Sector Committee of Ministers as per article 5(2)(c)(viii);
 - iii. RBOs/SWIs providing progress reports on the implementation of the Protocol and/or through their respective Watercourse Agreements to SADC Secretariat as per Article 5 (3)(c) of the Protocol; and
- c) SDGs
 - i. Regularly collecting information and data from Member States (MS) indicating the status of achievement of the water-relevant Sustainable Development Goals and compliance to UN and AU initiatives (e.g. conventions).

P1.2 POLICY HARMONISATION IN MEMBER STATES

There is need to harmonise national water policies among Member States, using the SADC RWP as a benchmark. A survey was conducted during the course of RSAP III which indicated good progress in domesticating the regional water policy, though implementation was generally lagging behind in a number of Member States.

Activities include:

- a) mobilising resources for a drawdown facility to assist Member States that need to harmonise their policy and/or regulatory instruments. This will be needs driven;
- b) conducting a study in each shared watercourse on the national policies on Member States and how they relate to Riparian States and SADC policies; and
- c) establishing a mechanism or platform for information and best practices sharing.

P1.3 DEVELOPMENT OF GUIDELINES TO ENHANCE COOPERATION

Guidelines will be developed in various areas, in a consultative manner, to enhance cooperation and harmonisation of approaches following the IWRM approach. Listed below are the guidelines to be developed within the given time frame:

- a) guidelines on Protocol Implementation (refer to Programme P2.5(a))
- b) guidelines for water infrastructure Project preparation (refer to Programme P5.1.1 (a));
- c) regional guidelines for the implementation of cross-border water infrastructure (refer to Programme P5.1.2 (d));
- d) guidelines for water infrastructure (e.g. dams, water and waste water treatment plants, water conveyance systems, etc.), operation and maintenance (refer to Programme P5.1.4 (b));
- e) guidelines for sustainable utilisation of surface and ground water infrastructure and regulation of reservoir activities (refer to Programme P5.1.4 (c));

- f) guidelines to harmonise mechanisms to address climate change related challenges and disasters;
- g) guidelines for harmonisation and communication of climate vulnerability maps (refer to Programme P7.1.1(c)); and
- h) guidelines on the monitoring, control and management of alien invasive plants (refer to Programme P6.4.4 (b)).

P1.4 INSTRUMENTS FOR COOPERATION FOR OCEANIC STATES

Cooperation between oceanic states on water related matters needs to be established and strengthened in collaboration with other sectors.

Oceanic States share unique and similar water related challenges including sea level rise, sea water intrusion, floods and droughts, oceanic degradation (e.g. coral bleaching, ocean acidification and marine pollution among others.)

There is a need for Oceanic States to establish and strengthen cooperation among themselves and other mainland states, as well as establishing/promoting mechanisms or platforms for information sharing and best practices. This is important for them to effectively deal with such challenges and capitalize on economic opportunities (reference P1.2(c)). Activities include:

- a) initiating a process that may lead to the establishment of an Ocean information management system, including documentation and clearing house for Ocean information;
- b) initiating a process that may lead to the establishment of an Memoranda of Understanding (MoU) on an Ocean technology incubator; and
- c) initiating a process that may lead to the establishment of a common platform for promoting innovation and collaboration in Marine Science Research.



PROGRAMME 2: ESTABLISHMENT AND STRENGTHENING OF OCEANIC STATES COOPERATION AND SHARED WATERCOURSE INSTITUTIONS (SWIS) IN MAINLAND SADC

OBJECTIVE: Develop the capacities of Member States to ensure the establishment of effective transboundary water management institutional arrangements and Oceanic State Institutions for Cooperation to enable the implementation of the RSAP (Regional Water Programme)

PRIORITY INTERVENTIONS

P2.1 STRENGTHEN COOPERATION IN OCEANIC STATES

There is need to establish and strengthen cooperation among oceanic states. Oceanic states share similar water related challenges including weather related disasters resulting from sea level rise and sea water intrusion, coral bleaching, ocean acidification and marine pollution, etc. Oceanic states are also at the forefront of climate change related challenges (cyclones, etc.) Therefore, there is a need for Oceanic states to establish and strengthen cooperation.

Activities include initiating a process that may lead to the development of instrument(s) for cooperation on water related challenges (refer Programme P1.4); as well as initiating a process that may lead to the establishment and strengthening of institutions for cooperation on water related challenges (refer to Programme P1.4).

These initiatives are to be extended to other SADC coastal states which fall under mainland SADC, including Angola, Mozambique, Namibia, South Africa and Tanzania.

P2.2 ESTABLISHMENT OF SHARED WATERCOURSE COMMISSIONS/INSTITUTIONS

Though all shared watercourses that are wholly within the SADC region have some form of cooperation framework, some still need to review their structure and re-establish basin wide cooperation.

Though the Congo Basin is not wholly within SADC but 80 percent of its water comes from SADC Member States, and does not have an inclusive basin-wide cooperation framework except for CICOS – of which membership and

scope doesn't meet the requirements as provided in the Protocol.

The key activity entails facilitating and coordinating processes leading to the establishment of at least two shared watercourse commissions, including the Congo Watercourse Commission.

P2.3 STRENGTHEN SWIS TO ESTABLISH SECRETARIATS

There is need to assist existing shared watercourse institutions that do not have permanent secretariats to establish them. Key activities include:

- a) facilitating the establishment of shared watercourse institution secretariats;
- b) facilitating the sharing of experiences and best practices between shared watercourse secretariats; and
- c) mobilising resources to strengthen shared watercourse institution secretariats.

P2.4 SHARING OF EXPERIENCES AND BEST PRACTICES

There is also need to share best practices and experiences among watercourse institutions through twinning arrangements, visits and workshops. Key activities include:

- a) convening regular regional fora for exchange of experiences among shared watercourse institutions (e.g. RBO Workshops);
- b) facilitating, promoting and supporting RBO twinning arrangements and visits for sharing of best practices; and
- c) facilitating, promoting and supporting participation of SADC RBOs in relevant regional (Africa) and global water events.

P2.5 DEVELOPMENT OF GUIDELINES FOR PROTOCOL IMPLEMENTATION (E.G. PLANNED MEASURES)

There is also need to develop guidelines for Protocol implementation in order to facilitate a common approach to and understanding of its provisions – especially the planned measures. Activities include developing guidelines for Protocol implementation in order to facilitate a common approach and understanding to the implementation of its provisions especially planned measures; as well as SWIs developing parameters of a planned measure(s) that has potential to cause “Significant Harm” or “Significant Adverse Effect”, based on the regional guidelines for a specific basin.

The parameters could include, inter alia, water abstraction, reservoir size, pollution thresholds for each shared watercourse or river reach.



PROGRAMME 3: GENDER MAINSTREAMING, YOUTH AND STAKEHOLDER ENGAGEMENT

OBJECTIVE: Promote gender mainstreaming, youth involvement and stakeholder engagement in the water sector

PRIORITY INTERVENTIONS

P3.1 GENDER MAINSTREAMING IN THE WATER SECTOR

Gender mainstreaming needs to be promoted in the water sector, in line with the SADC Gender Policy and the SADC Protocol on Gender and Development. Activities include:

a) mobilising resources for the implementation of the SADC water sector gender mainstreaming capacity building plan;

b) promoting collaboration and harmonisation of efforts between gender machineries and Gender Focal Points (GFPs) within Member States, leading to the establishment of gender and water community of practice (COPs) at national and regional levels;

c) developing a gender monitoring and evaluation framework for the SADC water programme, which includes sex-disaggregated indicators to monitor progress, in line with the SADC Gender Unit;

d) undertaking gender mainstreaming demonstration projects in three RBOs with gender objectives, in order to

field-test outcomes at different levels in the water sector; and

e) advocating for gender mainstreaming in the water sector programmes, and disseminate tools and other capacity building resources.

P3.2 STAKEHOLDER ENGAGEMENT AND PARTICIPATION

P3.2.1 COMMUNICATION AND AWARENESS CREATION

P3.2.1.1 RE-ESTABLISH THE SADC WATER WIRE

The SADC Water Wire which was implemented within the framework of the RSAP III and was hosted by Inter Press Services (IPS) Africa, was a very useful facility to facilitate media communication on water. Due to lack of funds, the service is no longer available. Key activities include:

a) mobilising resources and exploring innovative financing to support the Water Wire;

b) identifying and negotiating with the potential hosts for the Water Wire; and

c) re-establishing the SADC Water Wire.





P3.2.1.2 SADC WATER COMMUNICATORS NETWORK

There is need to strengthen the SADC water communicators' network through the following activities:

- a) creating and promoting a digital communication platform for the SADC water sector;
- b) capacitating citizens' water communication, especially using existing platforms and social media; and
- c) promoting and disseminating the 'Bridging Waters' documentary series and related material and strengthening the feedback mechanisms.

P3.2.1.3 JOURNALISTS REPORTING ON WATER AND MEDIA RELATIONS FOR WATER PROFESSIONALS

There is need to support journalists reporting on water. The media is central in communicating the regional water programme. Activities include:

- a) promoting and giving prominence to the SADC Water Media Award;
- b) implementing the SADC Communication Strategy for Water;
- c) training journalists reporting on water; and

- d) training water professionals on media relations.

P3.2.2 STAKEHOLDER ENGAGEMENT AND PARTICIPATION

P3.2.2.1 CITIZENS SCIENCE APPLICATION ON WATER

There is need to promote citizens' science application on water. The use of citizens to monitor river water status is an important contribution to water science. Activities include training of citizens on the monitoring and communicating of river water status and undertaking demonstration projects on the use of citizen's science on selected river reaches where they can monitor river water status.

P3.2.2.2 REGIONAL RBOS WORKSHOPS

There is need to invest in and strengthen regional cooperation. This could be done through regional workshops that provide a platform for RBOs to share experiences and learn from each other. Activities include organising RBO workshops biennially and documenting and sharing RBO practices and experiences.

P3.2.2.3 REGIONAL MULTI-STAKEHOLDER WATER DIALOGUES

Regional multi-stakeholder water dialogues need to be organised to provide a platform for stakeholders to discuss, learn and share ideas on water issues affecting them and the region in all sectors. Activities include organising biennial regional multi-stakeholder water dialogues for water stakeholders to share experiences on various pertinent topics and documenting and sharing outcomes of the regional multi-stakeholder water dialogues.

P3.2.2.4 WATERNET/WARFSA/GWP-SA SYMPOSIA

There is need to organise WaterNet/WARFSA/GWP-SA Symposia in the region to disseminate research findings on water matters. Activities include:

- a) organising the annual WaterNet/WARFSA/GWP-SA symposium;
- b) promoting the Journal of the Physics and Chemistry of the Earth within the SADC water sector; and
- c) developing a policy brief on the research findings.

P3.3 YOUTH INVOLVEMENT

The youth comprise well over 50 percent of the population in many SADC countries; they also make up the largest group of the unemployed. The youth are the most energetic, creative and innovative sector of society. Youth involvement in the water sector remains critical for the development of the sector and the region.

This is part of the implementation of the SADC Revised Regional Indicative Strategic Development Plan (RISDP) 2015-2020; the SADC Declaration on Youth Development and Empowerment, the SADC Strategy and Business Plan 2015-2020; the Youth Participation and Empowerment for Sustainable Development; and the Africa Ministers Council on Water (AMCOW) Policy and Strategy for Mainstreaming Youth in the Water and Sanitation Sector in Africa.

P3.3.1 ESTABLISH AND OPERATIONALISE THE SADC WATER YOUTH NETWORK

There is need to establish the SADC Water Youth Network and operationalise it in line with the regional and continental instruments cited above. Activities include organising national workshops or other interventions to establish the National Water Youth Fora / Associations and organising regional workshops or other interventions for the establishment and operationalising of the SADC Water Youth Network.

P3.3.2 EFFECTIVE YOUTH PARTICIPATION & COORDINATION

There is also need to facilitate effective youth participation and coordination in the SADC water sector. Although the youth have a lot of energy and enthusiasm, there is inadequate requisite experience and their efforts are often uncoordinated. It is therefore imperative that the youth are mentored and appropriate structures are put in place to coordinate their efforts. Activities include:

- a) facilitating effective involvement of the youth in the implementation of the entire RSAP IV;
- b) facilitating youth participation in regional water-related decision making processes; and
- c) creating youth platforms to promote cross-sectoral collaboration to share experiences and best practices.

P3.3.3 YOUTH CAPACITY DEVELOPMENT

There is need to develop youth capacity in the water sector. The development and capacitating of the youth to ensure

the future of the water sector is important. The youth require appropriate training and mentorship to ensure sustainability of the sector. Activities include:

- a) conducting needs assessment on capacity development and competencies (link to SADC Human Capacity Development Plan);
- b) conducting training for youth in the following areas:
 - i. leadership skills;
 - ii. entrepreneurship skills; and
 - iii. planning, monitoring, reporting and evaluation skills.
- c) developing an internship programme in the water sector at the SADC Secretariat and other water related institutions such as RBOs, implementing agencies and the private sector;
- d) conducting a situation analysis on the extent to which water and sanitation- related issues are incorporated in school curricula in Member States;
- e) developing a strategy that promotes water as a career option, emphasising on enrolment of girls in Science, Technology, Engineering and Maths (STEM) programmes at all levels (primary, secondary and tertiary).

P3.3.4 INNOVATION, ENTREPRENEURSHIP AND EMPLOYMENT CREATION

There is need to facilitate youth innovation, entrepreneurship and employment creation. The youth are the most innovative and entrepreneurial in nature, yet they carry the biggest brunt of the unemployed in the SADC region. Activities include:

- a) developing a framework that guides and promotes youth innovations that address water and sanitation sector related challenges;
- b) facilitating the development of youth-led bankable pioneering water and sanitation related entrepreneurship projects that address youth unemployment;
- c) developing a water youth database that provides business information and opportunities;
- d) establishing a network for water youth and the private sector for youth-led entrepreneurship and employment creation; and
- e) undertaking demonstration projects on the water footprint and value chains.

PROGRAMME 4: CAPACITY DEVELOPMENT AND RESEARCH

OBJECTIVE: To implement the SADC Human Capacity Development Plan for the water sector, strengthen institutions and support research in water on agreed themes

PRIORITY INTERVENTIONS

P4.1 CAPACITY DEVELOPMENT

Capacity development of regional institutions is limited to RBO strengthening and Oceanic States Institutions for Cooperation (OSIC) on water and related matters, covered in Programme 2 above. Capacity development will form a continuum from addressing knowledge gaps into skills and meta-competencies in support of the implementation of the RSAP IV. Waternet will play a leading role in the implementation of the capacity development component of the RSAP IV, as a subsidiary institution of SADC. Other implementing agencies for the regional water programme will be chosen based on their already existing capacity to carry out the implementation. Therefore, this programme focuses on individual capacity development.

There is need to ensure that the SADC Water Sector Human Capacity Development Plan is under implementation. Activities include:

a) training on the following topics:

- negotiation skills in transboundary surface and ground water resource management;
- international law and instruments including UN articles on groundwater;
- water governance (water supply and sanitation);
- groundwater management;
- media relations training for water professionals (refer to Programme P3.2.1.3(d));
- journalists reporting on water (refer to Programme P3.2.1.3(c));
- economic accounting for water (refer to Programme P5.3.1(a));
- monitoring and communicating of river water status (refer to Programme P3.2.2.1 (a));
- gender mainstreaming tools (refer to Programme P3.1(e));
- initiating a process leading to the establishment of a common platform for promoting innovation and collaboration in Marine Science Research (refer to Programme P1.3(c));

- water demand management;
- monitoring and evaluation methodologies;
- training of citizens on the monitoring and communicating of river water status (refer to Programme P3.2.1.3(a)); and
- youth capacity development and training (refer to Programme 3.3.3).

P4.2 RESEARCH INNOVATION AND TECHNOLOGICAL ADVANCEMENT

There is need to undertake research within the framework of the SADC Research Agenda to address the knowledge gaps. The Water Research Fund for Southern Africa (WARFSA) is the mechanism for implementing this, through coordination with other research partners. The Southern African Network of Water and Technology Centres of Excellence (SANWATCE), as a host for WARFSA, will play a pivotal role in rolling out the research Agenda for the region. It is imperative that research supports the implementation of regional, RBO/OSIC and national programmes. This calls for demand-driven and innovative research for patenting and commercialisation within the framework of the SADC Research Agenda's predetermined research themes under two focal areas listed below:

1) Infrastructure for Health, Livelihoods and Economic Development

This will include:

- development of and sustainable implementation of resilient water-related infrastructure;
- innovation in affordable and appropriate technologies and innovative approaches and practices;
- sustainable water institutions; and
- Human Rights to water.

P4.1.1 HUMAN CAPACITY DEVELOPMENT PLAN

2) Water Resource Management and Environment

This will include:

- assessment of surface and groundwater resources;
- operational rules for water resources management;
- impact of urbanisation on water resources;
- water governance and institutional arrangements;
- ecosystems; and
- water and land.

P4.2.1 RESEARCH AREAS

Research needs to be conducted in the following areas:

- sustainable utilisation and management of fragile ecosystems including wetlands, lakes and estuaries (refer to Programme P6.4.5);
- methods for the management and control of aquatic weeds (refer to Programme P6.4.4);
- indigenous knowledge (refer to Programme P7);
- water related nexus (refer to Programme P8);
- water footprint and value chains (refer to Programme P8.1.2(b));
- conversion of alien invasive species into valuable products (refer to Programme P6.4.4(d)); and
- understanding of climate change impacts on the hydrologic cycle in SADC (refer to Programme P7.4.2(a)).

P4.3 SECONDMENT OF MEMBER STATES' WATER PROFESSIONALS

Member States' water professionals need to be seconded to RBOs and to the SADC Water Division to build capacity. There is limited human resource capacity at the SADC Water Division and in RBOs. This can be addressed in part by the secondment of water professionals from Member States whose salaries are paid by the seconding Member State.

Activities include mobilising resources for allowances for seconded Member States' water professionals and facilitating the secondment of these professionals to RBOs and the SADC water division.



PROGRAMME 5: INFRASTRUCTURE DEVELOPMENT, OPERATION AND MAINTENANCE

OBJECTIVE: To facilitate the development, financing, operation and maintenance of water infrastructure for sustainable socio-economic development and industrialization

PRIORITY INTERVENTIONS

P5.1 INFRASTRUCTURE DEVELOPMENT AND MANAGEMENT

P5.1.1 IMPLEMENTATION OF THE WATER CHAPTER OF THE SADC REGIONAL INFRASTRUCTURE DEVELOPMENT MASTER PLAN (RIDMP)

The water chapter of the SADC Regional Infrastructure Development Master Plan (RIDMP) needs to be implemented. SADC has prioritised infrastructure development and has developed the RIDMP with water as one of its chapters. The implementation of the SADC RIDMP is vital for the realization of SADC's goals and objectives. Activities include:

- a) developing guidelines for water infrastructure project preparation and packaging;
- b) assisting Member States in the preparation of water infrastructure projects for financing; and
- c) compiling, updating and marketing a regional water infrastructure priority project portfolio as part of the RIDMP.

P5.1.2 JOINT CROSS-BORDER AND TRANSBOUNDARY WATER INFRASTRUCTURE DEVELOPMENT AND DEMONSTRATION PROJECTS

Joint cross-border and transboundary water infrastructure demonstration projects need to be initiated to improve cooperation between Member States through joint infrastructure planning and development. Activities include:

- a) assisting RBOs to develop transboundary water infrastructure plans and strategies to be implemented by Member States;
- b) assisting RBOs and Member States to identify and implement joint cross-border and transboundary water

infrastructure demonstration projects which include WASH;

- c) documenting lessons learned in the implementation of cross-border water infrastructure; and
- d) developing regional guidelines for the implementation, operation and maintenance of transboundary and cross-border water infrastructure.

P5.1.3 DEMONSTRATION AND UP-SCALING OF IWRM LIVELIHOOD PROJECTS: COMMUNITY WATER INFRASTRUCTURE INCLUDING DEMONSTRATION PROJECTS

Demonstration projects need to be implemented and scaled-up in order to build the capacities of communities to apply IWRM principles at various stages of project development and implementation through "learning by doing approach" (refer to Programme 4). Activities include:

- a) designing demonstration projects to improve livelihoods at community levels;
- b) up-scaling and replicating IWRM livelihood projects; and
- c) documenting and disseminating lessons learned from IWRM livelihood Projects.

P5.2 WATER SUPPLY AND SANITATION

P5.2.1 STRENGTHENING THE MONITORING AND REPORTING SYSTEMS IN THE WATER SUPPLY AND SANITATION SECTOR

The regional water supply and sanitation sector requires strengthening in order to improve the monitoring and reporting of water supply and sanitation services.

Activities include developing common minimum regional standards for the monitoring and reporting of WSS access and promoting water demand management practices and lessons learned, including alternative funding mechanisms in order to increase access to WSS especially to poor communities.

P5.2.2 HUMAN RIGHTS APPROACH TO WATER SUPPLY AND SANITATION

A common understanding of the human rights approach to water supply and sanitation needs to be initiated. The human rights approach to water supply and sanitation was adopted at the United Nations level. However, the interpretation and understanding of its meaning and implications to each Member State differs. Activities include mobilising resources for regional dialogues on the human rights approach to water and creating regional dialogue to build consensus on this approach to water supply and sanitation.

P5.3 WATER ECONOMICS

P5.3.1 CAPACITY BUILDING AND APPLICATION OF ECONOMIC ACCOUNTING OF WATER (EAW)

There is need to build capacity on economic accounting of water (EAW). Understanding the economic value of water will go a long way in the financing of water initiatives. SADC has undertaken economic accounting of water in the region and the results need to be applied. Activities include:

- a) promoting the use of tools and methods developed during the SADC economic accounting for water in 2010;
- b) undertaking demonstration projects on the economic accounting of water use at both national and river basin levels;
- c) scoping of data availability in Member States to support the construction of economic water accounts; and
- d) reviving Member State structures for data collection and construction of water accounts (e.g. the country teams).

P5.4 WATER FINANCING

P5.4.1 STRATEGY FOR INNOVATIVE DEVELOPMENT FINANCE MECHANISMS FOR THE WATER SECTOR

There is need to develop a strategy for innovative development finance mechanisms for the water sector. A regional water sector development finance strategy is essential for equipping Member States and RBOs/OSIC to mobilise funds for their projects. Activities include:

- a) assessing national and RBO/OSIC policies, strategies and plans for water financing including public private partnerships, in collaboration with the SADC Private Public Partnership (PPP) network;
- b) developing an innovative water financing strategy for the region including:
 - fund raising strategies;
 - PPPs;
 - partnerships with civil society in infrastructure resource mobilisation; and
 - blending strategies for infrastructure financing;
- c) developing and updating an interactive database of water financing institutions and options; and
- d) organising water infrastructure investment conferences.



PROGRAMME 6: WATER RESOURCES MANAGEMENT FOR SUSTAINABLE DEVELOPMENT

OBJECTIVE: To enhance sustainable development through people-centred adaptive management of water resources based on IWRM principles.

PRIORITY INTERVENTIONS

P6.1 SURFACE WATER RESOURCES MANAGEMENT (HYDROLOGY)

P6.1.1 BASIN DEVELOPMENT STRATEGIES AND PLANS

Basin development plans and strategies need to be developed to outline the priority steps required for the implementation of integrated water resources management at the river basin and Member States levels. Activities include:

- a) assisting RBOs to develop river basin development strategies and plans to support water resources sharing, management and infrastructure development;
- b) assisting RBOs to develop basin information management systems; and
- c) facilitating identification of priority inter-basin projects and undertaking relevant studies.

P6.2 GROUNDWATER DEVELOPMENT AND MANAGEMENT

P6.2.1 INSTITUTIONALISING THE SADC GROUNDWATER MANAGEMENT INSTITUTE

The SADC Ground Water Management Institute (GMI) needs to be operationalised to serve as a centre of excellence for groundwater in the region. Activities include:

- a) mobilising and soliciting finance for SADC GMI including designing small grants schemes for Member states;
- b) coordinating and administering the SADC GMI;
- c) developing a project implementation manual, and a monitoring and evaluation framework;
- d) raising awareness, enhancing knowledge management and communication, including setting up a project website.
- e) developing a research programme; and
- f) supporting National Focus Groups (NFGs).

P6.2.2 STRENGTHENING INSTITUTIONAL CAPACITY FOR THE SUSTAINABLE MANAGEMENT OF GROUNDWATER IN SADC

There is need to modernize and harmonize legal, policy and regulatory frameworks to address gaps in prevailing institutional groundwater management tools at national and transboundary levels, including in Oceanic States. Activities include:

- a) providing assistance to Member States to modernise and harmonise laws, policies and regulatory tools through technical assistance to Member States;
- b) developing guidelines, standards and management tools to access and compare up-to-date management tools;
- c) strengthening groundwater monitoring and data management systems to support Member States;
- d) facilitating the integration of groundwater in shared watercourse commissions and agreements through transboundary cooperation;
- e) organising awareness-raising initiatives on draft UN articles on groundwater among Member States; and
- f) facilitating consultation on whether and how to incorporate the draft articles in to the existing regional and basin institutional arrangements.



P6.2.3 ADVANCING KNOWLEDGE ON TRANSBOUNDARY WATER AND NATIONAL GROUNDWATER

Transboundary and national groundwater knowledge needs to be advanced through various initiatives and studies. Activities include:

- a) assisting Member States to identify finance for transboundary aquifer management in Member States in collaboration with RBOs/OSIC through Transboundary Diagnostic Analysis (TDAs) and Strategic Action Plans (SAP);
- b) undertaking demonstration projects on emergent and priority ground water management challenges such as climate change, pollution, etc.; and
- c) building a knowledge-sharing platform for an integrated data management system interlinked to a GIS platform and website, through information and communication technologies.

P6.2.4 PROMOTING GROUNDWATER INFRASTRUCTURE MANAGEMENT AND DEVELOPMENT

The role of infrastructure as a means to develop opportunities for more sustainable management of groundwater needs to be promoted to address groundwater related challenges. Activities include:

- a) facilitating the development of infrastructure for improved groundwater utilization, management and protection. This will be achieved through assessment, mapping, operation and maintenance of infrastructure at Member States level;
- b) evaluating impact and learning from groundwater infrastructure investments to help report on results;
- c) providing operational support for groundwater infrastructure development, including disseminating manuals on infrastructure solutions; and
- d) providing support to partnership developments and securing funding from among governments, private sector parties and bi/multilateral partners and others, for scaling-up successful solutions for infrastructure development.

P6.2.5 MANAGEMENT AND USE OF GROUNDWATER IN OCEANIC STATES

There is need to develop strategies for the safe and sustainable use of groundwater to promote water security of Oceanic States. Oceanic states are heavily reliant on groundwater sources. Activities include:

- a) conducting assessments on groundwater availability and current and future use in Oceanic States;
- b) identifying the vulnerability of groundwater to sea water intrusions, over abstraction, pollution, climate change, and reduction in recharge zones; and
- c) facilitating the formulation of master plans for sustainable use, management and development of groundwater, including innovative approaches such as artificial recharge and conjunctive use.

P6.3 ENVIRONMENTAL WATER MANAGEMENT

P6.3.1 RIVER AND OTHER BODIES' WATER QUALITY

The capacity of the national agencies and basin organisations to manage the water quality of rivers to ensure their ecological integrity needs to be improved. Activities include:

- a) developing regional river water quality guidelines;
- b) continuing the development and circulation of River Awareness Kits (RAK) for river basins; and
- c) promoting the use of citizens' science to monitor river water quality status in selected river basins/reaches.

P6.3.2 ECOLOGICAL WATER REQUIREMENT

Member States need to be trained on the methodologies for the assessment of environmental flows/ecological water requirements, including river health classification. The key activity entails developing a capacity building programme for Member States on the methodologies for determination of environmental flows /ecological water requirements and river health classification.



P6.4.3 UNDERSTANDING OF THE INTERACTION OF MARINE AND FRESHWATER ECOSYSTEMS

There is need to improve the understanding of the interactions between fresh water and marine ecosystems through a “sources to sea” approach at the river basin scale. The key activity entails developing programmes that facilitate the studying and monitoring of the relationship between freshwater and marine ecosystems (“source to sea” concept) and mitigate sea water intrusion in coastal areas.

P6.3.4 AQUATIC WEEDS

The rapid spread of alien invasive aquatic and terrestrial plants that have an impact on water resources has to be controlled in the region. Activities include:

- a) re-establishing the programme for the control of aquatic plants (Invasive Alien Species – (IAS) and supporting member States and RBOs to implement the programme;
- b) undertaking research on the management and control of alien invasive aquatic and terrestrial plants, including the use of indigenous knowledge; and
- c) undertaking research on commoditization and

commercialization of alien invasive aquatic and terrestrial plants by converting these plants into valuable products.

P6.3.5 PROTECTION OF FRAGILE ECOSYSTEMS

The management of fragile aquatic ecosystems including wetlands has to be improved. Wetlands play a vital role in maintaining the integrity of the ecosystems of the SADC region.

They are the source of rivers; they provide base-flow especially in dry periods; they clean the water of pollutants; prevent soil erosion; and act as detention ponds during flooding. Activities include:

- a) developing management and protection programmes for fragile ecosystems such as wetlands, estuaries, river sources, etc.), in collaboration with other sectors and institutions;
- b) assisting RBOs/OSIC and Member States to implement fragile (e.g. wetland) sustainable ecosystem protection and management programmes; and
- c) undertaking projects to demonstrate the value of ecosystems.

PROGRAMME 7: CLIMATE VARIABILITY AND CHANGE

OBJECTIVE: Enhance resilience of Member States to the impacts of water resources related challenges and disasters brought about by climate variability and change based on the best available science and incorporating local and indigenous knowledge and practices.

PRIORITY INTERVENTIONS

P7.1 PROMOTE THE APPLICATION OF LOCAL AND INDIGENOUS KNOWLEDGE AND PRACTICES

P7.1.1 ASSESSING LOCAL AND INDIGENOUS KNOWLEDGE AND PRACTICES

There is need to undertake validation, through research, of the body of indigenous knowledge for climate change adaptation. This will be done by comparing local and indigenous climate forecasting and facts, myths and beliefs of occurrence of the seasons.

Activities will include undertaking research and documentation to verify the accuracy of local and indigenous knowledge for climate forecasting and adaptation measures as well as establishing a body of local and indigenous knowledge on weather and seasonal climate prediction and adaptation measures in the SADC region.

P7.1.2 DISSEMINATION AND APPLICATION OF LOCAL AND INDIGENOUS KNOWLEDGE AND PRACTICES

Information about effective climate change adaptation needs to be communicated in a credible and relevant manner in order to build determination across society to address risks. Local and indigenous knowledge is best useful when it is packaged in a manner that it is useable to the rural farmer and other users.

Activities will include packaging key messages and best practices in the application of local and indigenous knowledge for climate change adaptation and disaster risk reduction in a comprehensible form, as well as implementing demonstration projects on local and indigenous knowledge best practices for climate change adaptation and disaster risk reduction.

7.2 COASTAL RESILIENCE AGAINST FLOODS AND DROUGHTS

There is need to promote resilience against floods, storm water ingress and droughts in coastal areas. Coastal areas are vulnerable to extreme climatic events such as hurricanes leading to floods, storm water ingress, and droughts in dry periods. Activities include:

- a) undertaking demonstration projects to understand and address resilience against flood flows and storm water ingress in coastal areas in particular Island States;
- b) facilitating the development of water security through energy efficient desalination technologies;
- c) facilitating the development of a Policy/Protocol for the management of coastal and ocean waters in line with the International Law of the Sea;
- d) assessing the impacts of sea level rise in coastal areas including Island States; and
- e) supporting the incorporation of sea level rise projections into regional planning processes, including adaptation measures in the various sectors and planning processes.

P7.3 CAPACITY BUILDING FOR SYSTEMATIC OBSERVATIONS, RESEARCH AND INSTITUTIONAL ARRANGEMENTS IN ADDRESSING CLIMATE CHANGE CHALLENGES AND DISASTERS

P7.3.1 FLOW FORECASTING AND EARLY WARNING SYSTEM

Floods and droughts cause severe damage to infrastructure and the economy of the SADC region including loss of human life. Forecasting and early warning can help Member States improve disaster management. There is need to develop methods for flow forecasting and early warning systems. Activities include:

- a) developing innovative methodologies for flow forecasting and early warning systems;
- b) expanding, maintaining and integrating the SADC Hydrological Cycle Observing Systems (HYCOS) into the SADC Disaster Management Framework within the SADC Climate Services Centre; and
- c) capacitating the SADC Climate Services Centre as SADC Flow Forecasting Centre.

P7.3.2 SADC HYCOS AND ASSOCIATED PRODUCTS TO SUPPORT DISASTER RISK REDUCTION (DRR)

There is need to initiate the SADC HYCOS and associated products to support Disaster Risk Reduction (DRR). SADC HYCOS has to be hosted under the SADC Climate Services Centre in order to integrate it fully into the SADC Disaster Risk Reduction Framework. Activities include:

- a) revitalising and consolidating the SADC HYCOS regional strategic hydro-meteorological network;
- b) developing and disseminating hydromet products;
- c) integrating the SADC HYCOS into Regional Flood Risk Management Strategies that support DRR;
- d) developing products such as flood and drought maps for disaster risk reduction;
- e) providing training to enhance capacities in the implementation of the HYCOS programme;
- f) providing training to support Member States in the implementation of the United Nation’s Sendai Framework for Disaster Risk Reduction (2015 – 2030).

P7.3.3 UNCERTAINTY IN CC IMPACTS ON THE HYDROLOGICAL CYCLE

The impacts of climate change on the hydrological cycle especially in the SADC Region are not well understood, and this could have a profound impact on the water resources in the region. There is need to investigate uncertainties in climate change impacts on the hydrological cycle. Activities include:

- a) undertaking studies and research to understand the climate change impacts on the hydrological cycle;
- b) training regional water professionals in water data analysis and water balance to better understand current and future climate change impacts on water resources; and
- c) undertaking research to strengthen linkages between local and indigenous knowledge and practices with scientific knowledge, in support of early warning systems.



PROGRAMME 8: INDUSTRIALISATION AND NEXUS APPROACHES

OBJECTIVE: To contribute to an enabling environment for accelerated industrial growth and pilot the water-energy-food approach to facilitate better understanding of the nexus approach in the SADC region.

PRIORITY INTERVENTIONS

P8.1 INDUSTRIALISATION

SADC's potential for growth in sectors such as mining and extractive industries, agriculture processing and manufacturing is heavily dependent on intensive water use. There is also a strong correlation between economic growth, industrial growth and water consumption. Water is a key catalyst and enabler for industrialization and economic growth.

Therefore the development of the water sector will contribute greatly to industrialization by reducing the costs of doing business and enhance the capacity of the private sector to produce value added goods and services in a competitive manner.

P8.1.1 INDUSTRIAL UPGRADING AND MODERNISATION PROGRAMME (IUMP) AND THE ROAD MAP AND STRATEGY

The SADC Industrial Upgrading and Industrialisation Programme (IUMP) is supported by the water sector. Activities to be undertaken in collaboration with other sectors include:

- a) accelerating the implementation of the water chapter of the SADC Regional Infrastructure Development Master Plan (RIDMP), taking into account Climate Change (refer to Programme P5.1.3 & and Programme P7);
- b) promoting the use of information, technology and innovation in the water sector to support industrialization (refer to Programme P3)
- c) undertaking research in innovative and advanced water saving technology and water quality, for various economic sectors including irrigation, agro-food processing, mining, fisheries, etc. (refer to Programme P4 and Programme P7.2 and Programme P6.4(d));

d) building capacity of national irrigation structures to promote large scale commercialised agriculture; and

e) providing guidance on the impact of water polluting industries on water resources, e.g. mapping of pollution industries.

P8.1.2 WATER FOOTPRINTS AND VALUE CHAINS

One key indicator for industrialisation is the processing of raw materials into finished products through various steps (value chain). The water used in the entire production process from raw material to finished products (footprint) needs to be quantified and valued. Water footprints and value chains at local, regional and global levels are initiated to extend production possibilities and enable cross-border utilization of natural resources. Activities to be undertaken in collaboration with other sectors include:

- a) developing water footprints and value chains for the various priorities of the SADC Regional Industrial Strategies (textile, pharmaceuticals, agriculture and agro-processing, mining and mineral beneficiation, etc.), at local, regional and global scales; (refer Programme P5.3.1)
- b) undertaking research on water footprints and value chains for the three priorities of the SADC Regional Industrial Strategies, at local, regional and global scales;
- c) disseminating research findings on water footprint and value chains;
- d) undertaking demonstration projects on water footprint and value chains; and
- e) Providing guidance on how to use water foot printing in decision making.

P8.2 NEXUS APPROACHES

Nexus approaches such as the Water – Energy, Water – Energy and Food (WEF) and Water – Land – Food can assist SADC adapt to the challenges posed by population growth and climate change and variability. Understanding the water related nexus is important for SADC to optimise its resources in order to achieve its goals.

P8.2.1 REGIONAL NEXUS GOVERNANCE

Governance systems for nexus approaches are clearly determined and established at all levels including SADC Secretariat level, and cascading to River Basins and Member States. As opposed to IWRM which is clearly water sector driven, nexus approaches do not naturally lend on water as a lead agency, but might be in other sectors. This might mean that the coordination responsibility can be pitched beyond the sectoral entities, but at the Deputy Executive Secretary in the case of SADC Secretariat, as well as the Ministry responsible for Economic Planning in Member States. Activities include:

- a) building consensus on the nexus lead coordinating entity at regional and Member States levels;
- b) facilitating the establishment of a SADC Secretariat cross-sector working group on nexus at Member States level; and
- c) identifying and implementing key areas for nexus collaboration (refer to Programme P8.2.2 and P8.2.3)

P8.2.2 REGIONAL NEXUS ASSESSMENT STUDY

There is need to conduct a regional nexus assessment study to provide policy recommendations as well as strategic actions that are informed by research and scientific evidence. Key activities include mobilising resources for a regional nexus study in collaboration with other sectors and identifying and implementing regional nexus demonstration projects and studies.

P8.2.3 NEXUSES IMPLEMENTATION

Although there are many nexuses relating to water, for a start, the focus will be on only three:

- Water-Energy;
- Water-Energy-Food;
- Water-Land-Food



WATER - ENERGY NEXUS

Elements of the water and energy nexus need to be investigated at a regional level in collaboration with relevant agencies. Water and energy are two basic necessities which are interdependent. We need water for hydro-power generation and cooling of thermal power stations as an example. We also need energy to pump water to where it is needed, not to mention heating of water for various uses.

WATER - ENERGY - FOOD NEXUS

There is need to implement Water – Energy – Food nexus demonstration projects to show the linkages and value of this nexus. This is the most common nexus where water plays roles in energy production as well as in food production – mainly through irrigation and stock watering. Energy on the other hand provides pumping power for water supply and irrigation. Due to the new drive for the use of renewable resources, bio-fuels are becoming competitors for food production; something that calls for a clear understanding of this nexus.

The Water - Energy - Food (WEF) nexus illustrated in Figure P8.2 can assist the SADC region adapt to the challenges posed by population growth, increased urbanisation, increased consumption demands due to improved standards of living and climate change and variability. In such a nexus, transformation will involve institutional change and joint implementation by the public and private sectors. The climate change dimension worsens the above nexus situations, especially in light of pressures such as population growth, water-related disasters such as floods, droughts and sea water intrusion, which are on the increase.

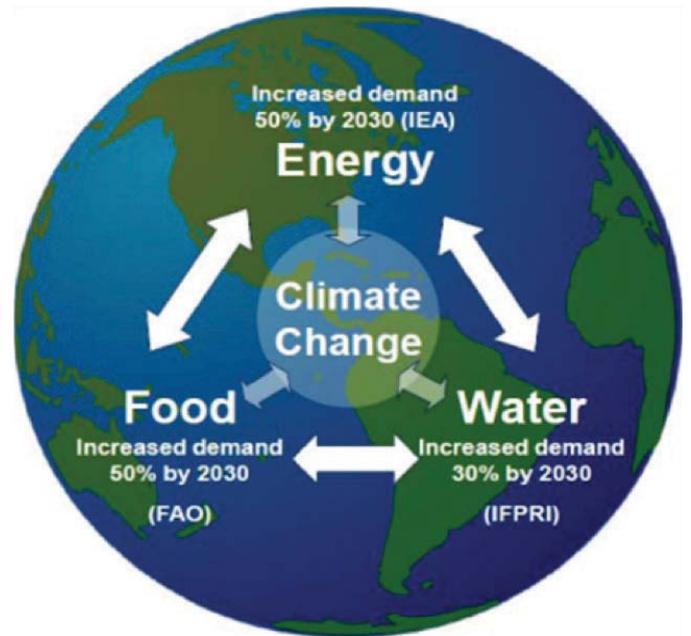


FIGURE P8.2 THE WATER-ENERGY-FOOD NEXUS
SOURCE: BIS AND J. BEDDINGTON 2013

WATER - LAND - FOOD (WLF) NEXUS

Land utilisation research and studies on the water – land – food nexus are undertaken in SADC in order to unlock its potential for the development of the region. The inextricable link between food, land and water means that any change in one component affects the others. Although the food and water issues are more understood within the framework of the WLF nexus, the land component is very complex. In a nutshell, land in the region:-

- is a hot political issue;
- is very contentious and divisive at all levels;
- is the basis for “wars of liberation”; and
- stimulates high competition for its access.

The challenges highlighted above show that there is need for better understanding of the land situation so that its utilisation can be unlocked to contribute to the development of the region.

The activities to advance the objectives of the three nexuses will be informed in part by the regional nexus study and will include:

- a) joint mobilisation of resources by the three sectors (water, energy and food) for nexus research and implementation;



b) regional studies on existing or planned water and/or energy infrastructure such as dams, large canals, photovoltaic solar fields and wind power generating fields, with the aim of meeting the peak energy demand such as:

- retrofitting hydro-power generation;
- using reservoirs as pump storage facilities – especially using renewable energy or excess energy from other power generation sources to do the pumping; and
- meeting peak demand by taking advantage of regional power connectivity, and the different time zones. e.g. the peak power demand in Tanzania occurring just after 6pm could be easily met by a solar field in Namibia which is 2hrs behind, hence will still be producing solar energy.

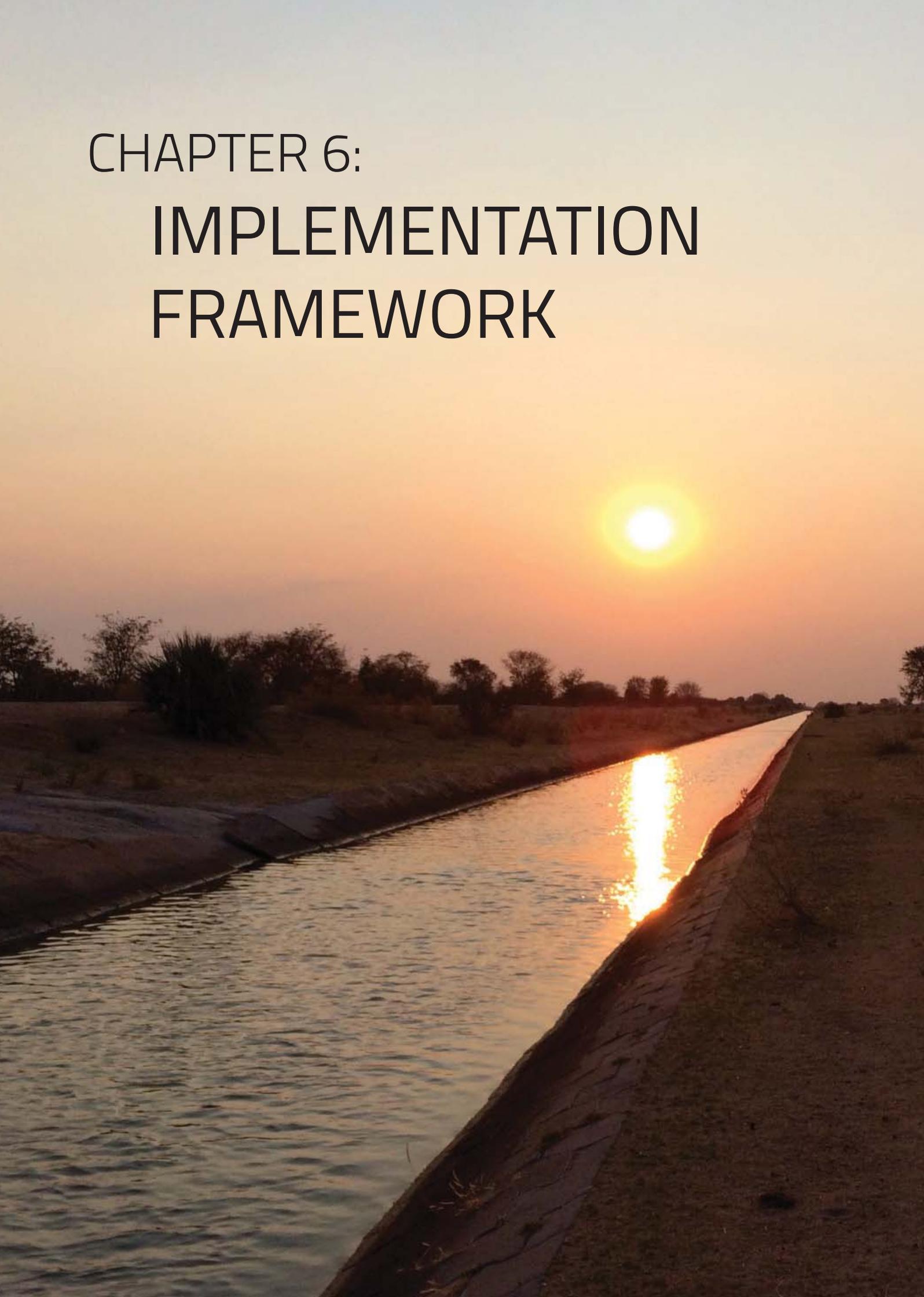
c) undertake demonstration projects on the three nexuses in collaboration with other SADC Secretariat Directorates (e.g. I&S (Energy and Water) and Food Security (FANR), etc.).

d) Undertake research and innovations on the three nexuses, including;

- research to unpack issues and challenges surrounding land utilisation and water in the region (availability, access, utilisation, etc.);
- research on linkages, opportunities and constraints of implementing the WEF nexus in the region.
- innovative initiatives on trade-offs between energy, water and/or food to improve optimisation e.g. for water use efficiency, flushing of toilets in planes and high pressure washers in car wash industries use very little water by using more energy to pressurise the systems. For improved energy efficiency, explore the use of wet cooling methodologies in thermal power stations.



CHAPTER 6:
IMPLEMENTATION
FRAMEWORK



6.1 GUIDING IMPLEMENTATION PRINCIPLES

The implementation of the RSAP is guided by the principles derived from SADC policy directives, particularly the RISDP, and are supported by experiences gained during the RSAP implementation. Table 6.1 lists these principles.

Programmatic approach	The RSAP is a programme design to achieve SADC objectives rather than a series of projects.
Comparative advantage	The Water Division is involved in those areas where it can produce more results (adding value).
Additionality	Institutions other than the SADC Secretariat are chosen to implement RSAP interventions.
Prioritisation	RSAP programmes and interventions are based on SADC development priorities.
Flexibility	RSAP is reviewed periodically to best respond to the ever changing environment.
Variable geometry	Member States and River Basins can move faster with the implementation of certain activities.
River basin approach	River Basin Organisations are a fundamental component to implement IWRM.
Best practices	IWRM policies and strategies are executed based on best practices and lessons learnt.
Demonstration	Policies, strategies and guidelines are tested to obtain lessons for the rolling-out of RSAP.
Participation	Relevant stakeholders are informed, consulted and involved throughout the implementation of the RSAP.
Subsidiarity	Programme and project activities are undertaken at the most appropriate levels.
Sustainability	RSAP promotes local ownership, awareness, capacity development and institutional development.

TABLE 6.1 RSAP IV GUIDING PRINCIPLES

6.2 INSTITUTIONAL ARRANGEMENTS

The implementation of RSAP IV is supported by an institutional framework that clarifies the roles and responsibilities of the different actors involved in the SADC Water Sector. The institutional framework covers: i) policy, ii) programme and iii) project levels.



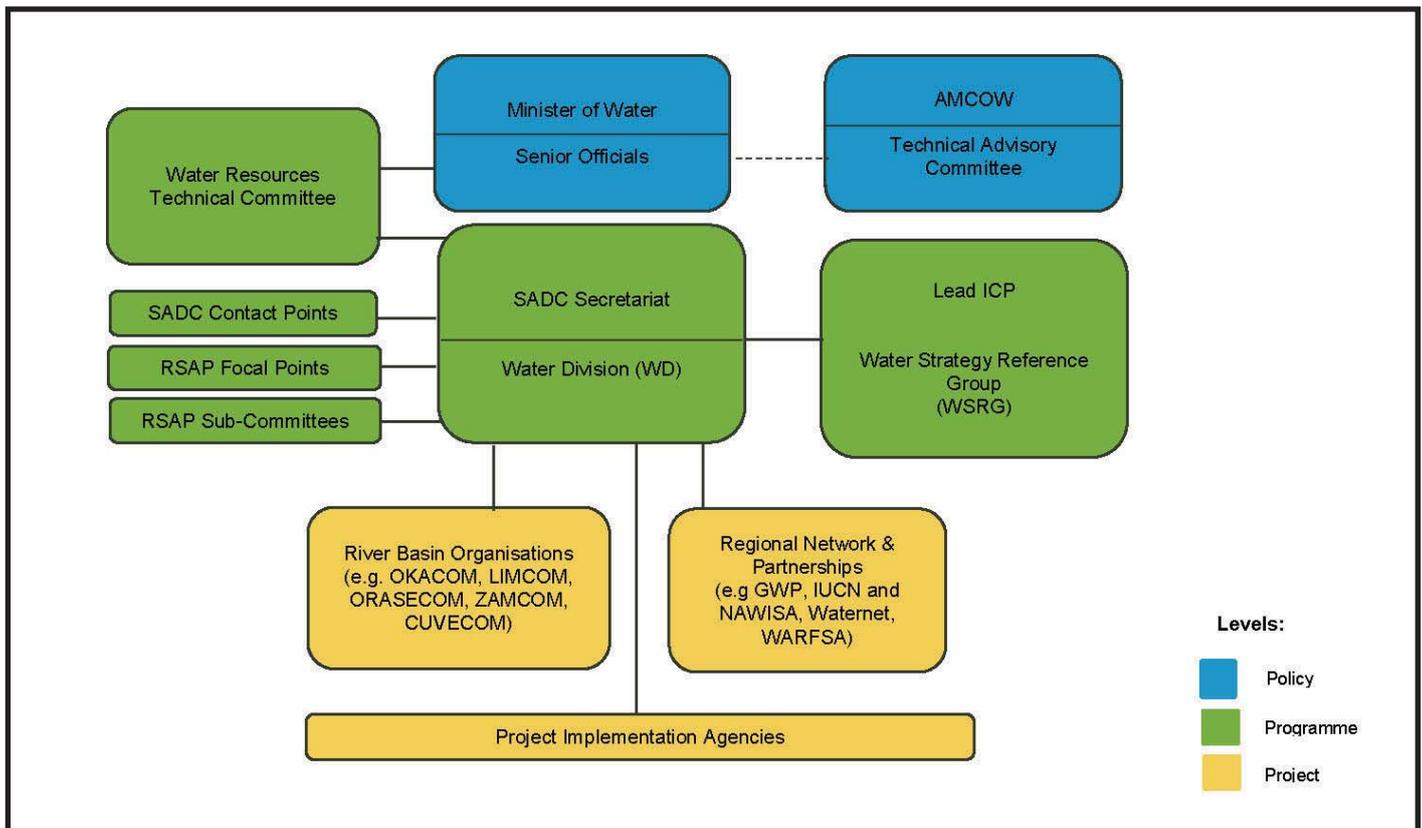


FIGURE 6.1: INSTITUTIONAL FRAMEWORK OF THE SADC WATER SECTOR

6.2.1 THE POLICY LEVEL

The SADC Council of Ministers (Council) provides policy direction and oversight on the implementation of SADC programmes, including the RSAP. The sectoral ministers responsible for water provide overall guidance for the water sector and also provide linkages between the SADC region and the continental body – the African Ministers Council on Water (AMCOW), which is a special committee of the African Union.

The SADC Protocol on Shared Watercourses (Protocol) tasks the SADC sectoral ministers responsible for water with the following responsibilities:

- oversee the proper execution of the RSAP;
- assist in resolving potential conflicts on shared watercourses; and
- advise the Council on policies to be pursued.

The ministers are advised by senior officials responsible for water, who are in-turn supported by the Water Resources Technical Committee (WRTC), comprised of national directors responsible for water, which is the technical clearing body for the SADC water sector. The Protocol tasks the WRTC with the following responsibilities:

- provide strategic direction to the RSAP;
- assess and approve RSAP projects;
- advise and coordinate the establishment of project steering committees; and
- supervise all other RSAP operations.

6.2.2 PROGRAMME LEVEL

At the programme level, the Protocol tasks the SADC Secretariat with the implementation of the RSAP and the Water Division under the Directorate of Infrastructure and Services is the responsible entity. The Water Division is responsible for:

- the development and implementation of the RSAP as a programme within the RISDP;
- coordination of RSAP projects;
- dissemination of RSAP outputs to stakeholders; and
- monitoring and evaluation of the RSAP at programme and projects.

Figure 6.2 illustrates the structure of the SADC Water Division, indicating the core positions within the Water Division. The Water Division is responsible for guiding the implementation of the RSAP IV and reporting to the SADC Statutory Organs. Noting the achievements made in establishing ZAMCOM, especially its Secretariat, it is evident that the Water Division has released its capacity to properly manage the RSAP IV with minimum technical staff. It is further envisaged that secondments of technical staff by Member States will also beef up the programme management positions, especially the Infrastructure Development cluster.

6.2.3 PROJECT LEVEL

The institutional arrangements adopted to ensure the successful implementation of RSAP projects vary from one project to another, depending on the projects' size and objectives.

6.3 FINANCIAL RESOURCE MOBILISATION AND STRATEGY

The successful implementation of the RSAP is to a large extent dependent on the financial resources invested in the SADC water programme. There are a number of funding strategies for funding the SADC Water Programme. There are also various sources of funding as well as a financial management framework to ensure sound financial management of the funds.

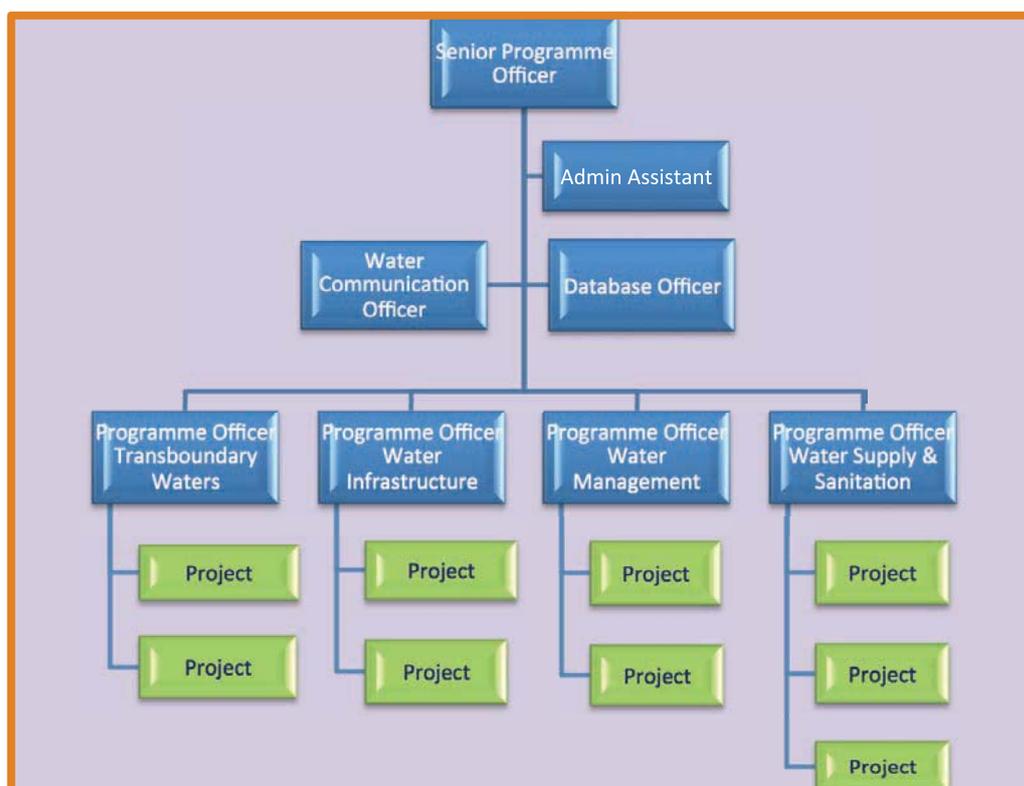


FIGURE 6.2: STRUCTURE OF THE SADC WATER DIVISION WITHIN THE I & S DIRECTORATE

SADC Secretariat	Ensure that all projects achieve the desired objectives and that the RSAP funds are used to produce the required outputs.
RSAP Sub-Committees	Provide strategic guidance on i) hydrology, ii) groundwater, iii) water quality and iv) water supply and sanitation.
Project Steering Committees	Oversee the various stages of project implementation and assess progress made at each stage against the project objectives.
Implementation Agencies	Supervise and provide operational management of RSAP projects.
RSAP Focal Points	Facilitate communications between SADC and Member States on the implementation of RSAP projects.
International Cooperating Partners	Provide financial and technical support in the implementation of RSAP projects.
Regional Networks & Partnerships	Provide implementation support and facilitate networking across sectors at national and regional levels.

TABLE 6.2 RSAP PROJECT IMPLEMENTATION: ACTORS AND RESPONSIBILITIES

6.3.1 FINANCING STRATEGY

The RSAP IV financial strategy is guided by the 2005 Paris Declaration on aid effectiveness adopted by the SADC Secretariat, as a new partnership with International Cooperating Partners.

This is to ensure the ownership, alignment and harmonization of procedures in the delivery of development assistance, which is also enshrined in the 2006, Windhoek Declaration.

6.3.2 PROGRAMME MANAGEMENT

In order to reach its goal, the RSAP IV is managed and financed as one programme rather than a series of unrelated projects. Funds are dedicated to the management of the programme, in joint financial arrangements between SADC and ICPs in the spirit of the Paris and Windhoek Declarations.

6.3.3 INCOME DIVERSIFICATION

A key factor of financial sustainability is income diversification, in order to improve RSAP IV financial resilience to changes in the funding environment. SADC will strengthen its current funding sources and develop new income streams. The income diversification strategy includes:

- intensifying efforts to mobilize domestic resources. This calls for greater contributions from Member States in various forms.
- creating an enabling environment for private investments. This calls for the SADC water sector

to be made more attractive to attracting private capital, especially public-private partnerships.

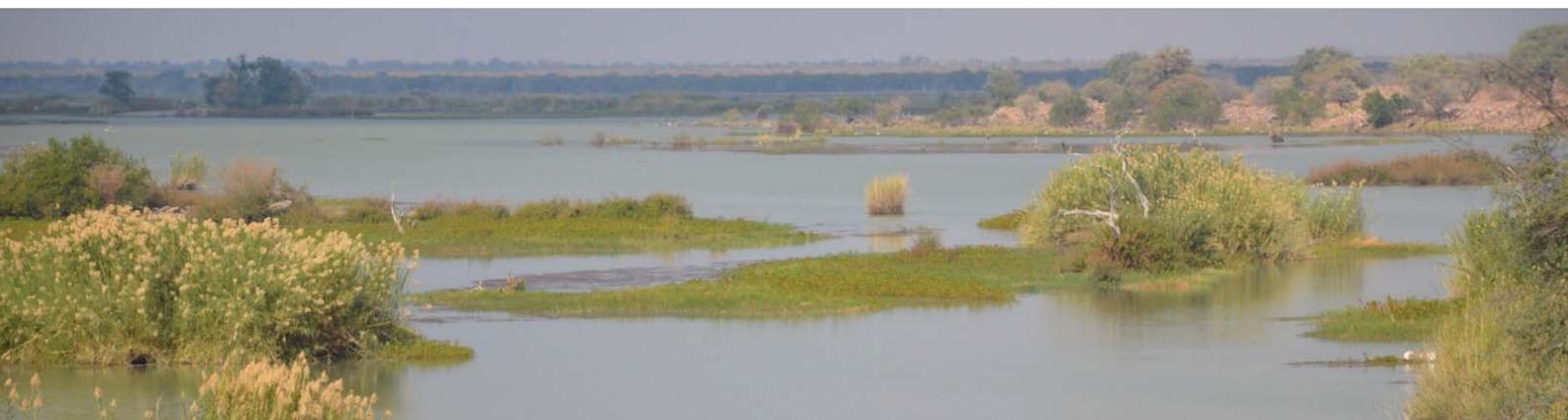
- intensifying efforts to access funds such as the Africa Water Facility that are dedicated for the African continent.

6.3.4 FINANCIAL MANAGEMENT

Sound financial management is critical for ensuring that SADC attracts funding for the water sector. Financial management is about ensuring that funds are available when needed and that they are obtained and used in the most efficient and effective way. The following commitments are essential for sound financial management:

- clear priorities are set to achieve the RSAP goal and objectives;
- all financial transactions are consistent with applicable accounting standards;
- financial performance is monitored against planned budget and programme objectives; and
- periodical reports are made to key stakeholders on the financial results of operations.





6.3.5 FUNDING SOURCES

6.3.5.1 NATIONAL GOVERNMENTS

The mobilization of financial resources from SADC national governments is essential for the implementation of the RSAP IV. Contributions from SADC Member States can take different forms:

- Financial contributions: SADC's coordination function is financed through contributions from Member States. These contributions are based on a formula taking into account a number of factors including Gross Domestic Products (GDP). The Directorate of Infrastructure and Services, to which belongs the Water Division, receives eight percent of the total contributions from Member States on an annual basis.
- Direct Contributions: Member States also contribute directly to the implementation of specific RSAP projects.
- In-kind contributions: Member States contribute to the implementation of the RSAP through

the provision of equipment, experts, office space, administrative support and use of facilities for most RSAP projects. Member States that are members of a River Basin Organisation (RBO) also carry the administrative and operational costs (salaries, overheads, etc.) of these organisations, including the costs of the commissioners providing guidance to RBOs.

6.3.5.2 EXTERNAL RESOURCES

The financing of SADC programmes will have to be met primarily by Member States in the long term. However, current constraints on the availability of domestic funds make the use of external financial resources vital in the short and medium term.

6.4 FUNDING REQUIREMENTS

The total capital requirements for RSAP IV are estimated at 6,500,000 Euros. This includes new projects and ongoing projects that are a carryover from RSAP III (see Table 6.3 and Annex 1 for more information).

#	Programmes	Costs (000 €)
1	Regional Instruments for Cooperation	4,200
2	RBO/SWI Establishment and Strengthening	15,000
3	Gender, Youth Development and Stakeholder Engagement	3,810
4	Human Capacity Development and Research	21,200
5	Infrastructure Development, Operation and Maintenance	74,700
6	Water Resources Management for Sustainable Growth	14,400
7	Climate Change and Variability	4,900
8	Industrialization and Nexus Approaches	2,790
		141,000

TABLE 6.3 RSAP IV: FUNDING REQUIREMENTS



CHAPTER 7:
MONITORING,
EVALUATION AND
REPORTING

A comprehensive monitoring and reporting system will be developed as Programme P1.1, "Monitoring and Reporting on the Implementation of RSAP IV, Protocol, and SDGs" of the RSAP IV, which will take into account the principles and provisions of the SADC's Strategy Development, Planning, Monitoring and Evaluation Policy (2012).

The framework for assessing achievements of the RSAP IV interventions and impacts of the resultant outcomes, which will be used during the mid-term review of the RSAP IV, will consist of three parts. These include monitoring, evaluation and reporting (ME&R). This framework will be based on the established measurable and verifiable milestones and indicators on the identified programme activities and expected outcomes.

These will be guided by the principles of the "Theory of Change", where the activities necessary to achieve the long-term goal of the RSAP IV are documented, the resources needed for the activities' implementation are identified, documented and sourced, and the indicators to assess the performance of each activity to achieve the interventions are clearly spelt out as indicated in Annex 1.

The selection of the milestones and indicators conform to the basic rules of simplicity, timeliness and cost effectiveness. The reporting framework for the RSAP IV will be synchronised with those of other SADC Water Division programmes and activities.

A Monitoring and Evaluation (M&E) framework will be designed to present the overview of the RSAP IV at a glance, and illustrate how each intervention contributes to the achievement of the strategic objectives along the three strategic areas.

7.1 MONITORING SYSTEM

The purpose of the monitoring system is to enable the SADC Member States, RBOs/SWIs, the SADC Secretariat as well as the ICPs working in the SADC Region to:

- have internal and external accountability over the resources utilised;
- facilitate the evaluation process of the RSAP IV Intervention outputs and outcomes;
- learn from the RSAP IV implementation experiences to improve future intervention planning; and
- make informed decisions on the future of the RSAP initiatives.

The status of interventions will be monitored through regular updates of the data sheets, presenting the progress made, key results and project expenditures. The status will be recorded into the M&E Framework, for each intervention cell, on the basis of a traffic light system, using the following colour coding: green (completed), yellow (on track), red (implementation problem) and blue (planned).

7.2 EVALUATION SYSTEM

During the mid-term review of the RSAP IV, the data and information from the monitoring system of the RSAP IV programme will be used to assess the achievement of the performance indicators for each activity and draw conclusions on five main aspects of the RSAP IV interventions: namely, relevance, effectiveness, efficiency, impact and sustainability.

7.2.1 PROGRESS REVIEWS AND REPORTING

Monitoring and evaluation are of limited value unless they are linked to clear reporting mechanisms. As with the RSAP I, RSAP II and RSAP III, the RSAP IV will also be subjected to a mid-term review, to be held in the second half of 2018. The objectives of the mid-term review are to:

- assess the progress made with the implementation of RSAP IV, both at project and programme levels;
- learn from and build on the processes initiated during the first half of the RSAP IV implementation phase; and
- provide strategic guidance to improve the implementation of the RSAP IV programmes in the second implementation phase.

The mid-term review will be based on consultations with relevant stakeholders including: the SADC Secretariat, Member States, implementing agencies, RBOs/SWIs, NGOs, ICPs and selected experts.

Further, the SADC Water Division envisages producing annual progress reports on the implementation of the RSAP IV, culminating in a final report documenting both achievements and shortcomings.

7.2.2 IMPLEMENTATION RISKS AND ASSUMPTIONS

The successful implementation of the RSAP IV is dependent on managing a series of risks and assumptions, including the following:

- Political stability is maintained in the region;
- Political commitment to transboundary water development and management remains vibrant in SADC Member States;
- SADC Water Division is adequately staffed and resourced; and

- International Funding Agencies and Member States invest the necessary resources to support the implementation of RSAP IV.

These risks are unlikely to threaten the implementation of the RSAP IV due to the strong commitments and interest shown by Member States and International Cooperating Partners. In order to minimize these risks, the SADC Secretariat will ensure that the strong ownership of the RSAP programmes demonstrated by the Member States to-date, is maintained throughout the implementation of the RSAP IV.



ANNEX



ANNEXE 1: RSAP IV OUTPUT/OUTCOME INDICATORS AND RELATIVE CONTRIBUTION TO THE RISDP IMPLEMENTATION

#	Programme and Intervention	Outcome Indicators for Programmes and Output Indicators for Interventions	Total Project Cost (x1000 €)	Extent & Area of Contribution to the RISDP										Collaborators and Implementing Agents			
				To Infrastructure & Services Immediate Outcomes													
				1	2	3	4	5	6	7	8	9	10				
P1	REGIONAL INSTRUMENTS FOR COOPERATION	Member States Policies Harmonised with SADC Policy as a proxy for basin wide harmonisation															
P1.1	Monitoring and Reporting on the Implementation of RSAP IV, Protocol, and SDGs	<ul style="list-style-type: none"> An annual assessment for RSAP IV, Protocol and SDGs undertaken over the 5 year period. A draw down facility is established to assist Member States with the process of policy harmonisation. A study conducted on Member States policies 	100	●						●	●	●	●	●	●	●	MS, RBOs/ SWIs, GWP-SA, ICLEI
P1.2	Policy Harmonisation in Member States		2,100	●					●	●	●	●	●	●	●	●	MS, RBOs
P1.3	Development of Guidelines to Enhance Cooperation	<ul style="list-style-type: none"> At least 60% of the guideline to enhance cooperation are developed and adopted. 	1,500	●	●	●	●	●	●	●	●	●	●	●	●	●	RBOs, MS
P1.4	Instruments of cooperation for Oceanic States	<ul style="list-style-type: none"> An MOU is agreed between the Oceanic States on areas of Cooperation 	500	●													OS, OSIOC
		Sub-Total	4,200														
P2	ESTABLISHMENT AND STRENGTHENING OF OCEANIC STATES COOPERATION AND SHARED WATERCOURSE INSTITUTIONS (SWIs)	SWIs/OSIOC have functional cooperation framework															
P2.1	Strengthen Cooperation in Oceanic States (OS)	<ul style="list-style-type: none"> Refer to P1.4 	Refer to P1.4	●													OS
P2.2	Establishment of Shared Watercourse Commissions/Institutions	<ul style="list-style-type: none"> At least two new permanent Watercourse Commissions are established and functional. 	2,000	●						●	●	●	●	●	●	●	RBOs, MS
P2.3	Strengthen SWIs to establish Secretariats	<ul style="list-style-type: none"> At least two Secretariats are formalised and become functional in two existing RBOs 	12,000	●						●	●	●	●	●	●	●	RBOs, MS
P2.4	Sharing of Experiences and Best Practices	<ul style="list-style-type: none"> At least two RBO twinning arrangements are achieved 	200							●	●	●	●	●	●	●	RBOs, OS
P2.5	Development of Guidelines for Protocol Implementation (e.g. planned measures)	<ul style="list-style-type: none"> At least one regional guidelines for protocol implementation is developed. At least one RBO is assisted to develop own guidelines for protocol implementation based on regional guidelines. e.g. on the practical definition of significant harm 	800	●						●	●	●	●	●	●	●	MS, RBOs
		Sub-Total	15,000														
P3	GENDER MAINSTREAMING, YOUTH AND STAKEHOLDER ENGAGEMENT	Youth are involved in decision making in the water sector at all levels whereby gender equity is actively considered.															
P3.1	Gender Mainstreaming in the water sector	<ul style="list-style-type: none"> Gender and Water Community of Practice is established Gender monitoring and evaluation framework for the SADC water programme is established Gender Mainstreaming demonstration projects in 3 RBOs undertaken 	300	●													MS, RBOs, SADC-Gender Unit
P3.2	Stakeholder Engagement and Participation																
P3.2.1	Communication and Awareness Creation																
P3.2.1.1	Re-establish the SADC Water Wire	<ul style="list-style-type: none"> SADC Water Wire re-established 	100														SADC-PR Unit, IPS
P3.2.1.2	SADC Water Communicators Network	<ul style="list-style-type: none"> Platform for social media usage for the SADC water sector established SADC Water Media Award awarded at each Ordinary SADC Summit 	150	●													SADC-PR Unit
P3.2.1.3	Journalists reporting on water and media relations for water professionals	<ul style="list-style-type: none"> At least two training courses for journalists reporting on water are conducted At least two training courses for water professionals on media relations are conducted 	350														MS, SADC-PR Unit, IPS
P3.2.2	Stakeholder Engagement and Participation																

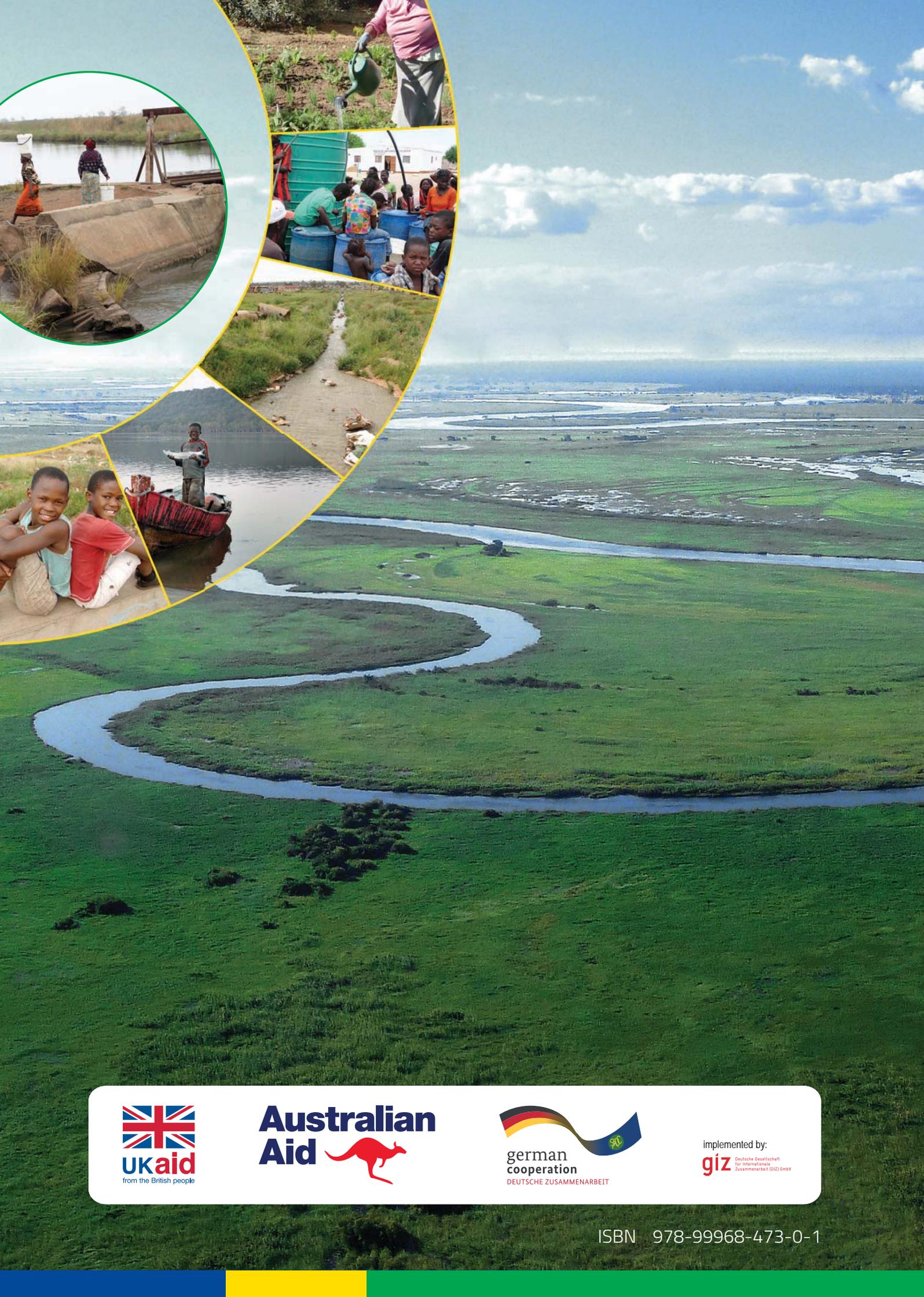
P3.2.2.1	Citizens Science application on Water	<ul style="list-style-type: none"> Conduct annual training course on Citizens Science At least one demonstration project is undertaken 	400														MS, RBOs NGOs/CBOs, SADC-FANR, SADC-REED
P3.2.2.2	Regional RBOs Workshops	<ul style="list-style-type: none"> At least two RBO Workshops are conducted and reports produced RBO best practices and experiences documented 	650														MS, RBOs NGOs/CBOs
P3.2.2.3	Regional Multi-stakeholder Water Dialogues	<ul style="list-style-type: none"> At least two Multi-stakeholder Dialogues are conducted and reports produced 	400														GWP-SA, MS, RBOs,
P3.2.2.4	WaterNet/WARFSA/GWP-SA Symposia	<ul style="list-style-type: none"> Five WaterNet/WARFSA/GWP-SA Symposia are conducted and journals produced At least one policy brief on the research findings is produced and disseminated for selected themes 	260														GWP-SA, WaterNet, WARFSA (SANWATCE)
P3.3	Youth involvement																
P3.3.1	Establish and Operationalise the SADC Water Youth Network	<ul style="list-style-type: none"> National and Regional Youth Fora framework is established 	300														MS, SADC-SHD&SP
P3.3.2	Effective Youth Participation & Coordination	<ul style="list-style-type: none"> Youth participate in at least two RSAP IV demonstration project Implementation 	300														MS, SADC-SHD&SP
P3.3.3	Youth Capacity Development	<ul style="list-style-type: none"> Needs assessment on capacity development and competencies is carried out 	100														MS, SADC-SHD&SP
P3.3.4	Innovation, Entrepreneurship and Employment Creation	<ul style="list-style-type: none"> Framework to guide youth innovation and water youth database developed 	500														MS, SADC-SHD&SP
P4	CAPACITY DEVELOPMENT AND RESEARCH	Sub-Total	3,810														
P4.1	Capacity Development	SADC Water Sector Human Capacity in the management and development of water resources is improved															
P4.1.1	Human Capacity Development Plan	<ul style="list-style-type: none"> At least 60% of the Human Capacity Development Plan for the Water Sector implemented 	10,000														WaterNet, MS, RBOs
P4.2	Research Innovation and Technological advancement																
P4.2.1	Research and Innovation for Development	<ul style="list-style-type: none"> At least 60% of the research topics under the two WARFSA research themes are undertaken 	10,000														MS, WARFSA (SANWATCE), WaterNet, RBOs, SADC-SHD&SP
P4.3	Secondment of Member States Water Professionals	<ul style="list-style-type: none"> Funds are raised to second Member States Professionals to at least 3 RBOs Funds are raised to second at least 2/Member States Professionals to the SADC WD 	1200														MS, RBOs
P5	INFRASTRUCTURE DEVELOPMENT, OPERATION AND MAINTENANCE	Sub-Total	21,200														
P5.1	Infrastructure development and management	Climate resilient infrastructure is developed and maintained with sustainable funding sources															
P5.1.1	Implementation of the water chapter of the SADC Regional Infrastructure Development Master Plan (RIDMP)	<ul style="list-style-type: none"> Guidelines for water infrastructure project preparations developed. An updated regional water infrastructure project portfolio compiled and marketed 	12,100														MS, RBOs, NGOs/CBOs
P5.1.2	Joint Cross-border and transboundary water infrastructure development and demonstration projects	<ul style="list-style-type: none"> At least one cross-border infrastructure is implemented in addition to the Kunene project At least two RBOs assisted to develop transboundary water infrastructure plans and strategies 	20,000														MS, RBO, NGOs/CBOs
P5.1.3	Demonstration and up-scaling of IWRM livelihood projects: community water infrastructure including demonstration projects	<ul style="list-style-type: none"> At least 10 IWRM livelihoods projects implemented 	40,000														RBOs, MS
P5.2	Water Supply and Sanitation																
P5.2.1	Strengthening the water supply and Sanitation Sector	<ul style="list-style-type: none"> Common regional standards for the monitoring and reporting of WSS access are developed 	600														MS, CBOs/NGOs, Private Sector, PPP, IWSD
P5.2.2	Human Rights approach to water supply and sanitation	<ul style="list-style-type: none"> One Regional Dialogue on Human Rights approach to water supply and sanitation is held 	300														MS, CBOs/NGOs, Private Sector, PPP,

P7.1.1	Assessing local and indigenous knowledge and practices	<ul style="list-style-type: none"> A body of local and indigenous knowledge on weather and seasonal climate prediction and adaptation measures established through research 	300															MS, RBOs, SADC-CSC, GWP-SA, WARFSA (SANWATCE), Watermet, SADC-FANR, SADC REED, ICLEI
P7.1.2	Dissemination and application of local and indigenous knowledge and practices	<ul style="list-style-type: none"> At least two demonstration projects on local and indigenous knowledge best practices undertaken 	100															SADC WD, MS, RBOs/OSIC, SADC-CSC, GWP-SA, WARFSA (SANWATCE), Watermet, SADC-FANR, SADC REED, ICLEI
P7.2	Coastal resilience against floods and droughts	<ul style="list-style-type: none"> A Policy/Protocol for the management of coastal and ocean waters in line with the International Law of the Sea developed. 	100															MS, RBOs, OSIC
P7.3	Capacity building for systematic observations, research and institutional arrangements in addressing climate change challenges																	
P7.3.1	Flow Forecasting and Early Warning System	<ul style="list-style-type: none"> SADC HYCOS is expanded, maintained and integrated into the SADC Disaster Management Framework within the SADC Climate Services Centre 	1,000															SADC WD, MS, RBOs, SADC-CSC, SADC DDR Unit
P7.3.2	SADC HYCOS and associated products to support Disaster Risk Reduction (DRR)	<ul style="list-style-type: none"> SADC HYCOS products such as flood and drought maps produced 	3,000															MS, RBOs, SADC-CSC, SADC DDR Unit
P7.3.3	Uncertainty in CC impacts on the hydrological cycle	<ul style="list-style-type: none"> Undertake at least one study to understand the climate change impacts on the hydrological cycle; Conduct at least one training for regional water professionals in water data analysis and water balance to better understand current and future climate change impacts on water resources; Undertake at least one research to strengthen linkages between local and indigenous knowledge and practices with scientific knowledge in support of early warning systems. 	400														SADC FANR, SADC REED, Watermet, MS, RBOs, GWP-SA, ICLEI	
		Sub-Total	4,900															
P8	INDUSTRIALISATION AND NEXUS APPROACHES	Water Footprints, Value Chains and Nexus Approaches are used to support the industrialisation drive and further strengthen the case of water as a driver for National Economy																
P8.1	Industrialisation																	
P8.1.1	Industrial Upgrading and Modernisation Programme (IUMP)	<ul style="list-style-type: none"> Study on water polluting industries undertaken in at least five MS 	140															MS/OS, RBOs/OSIC, SADC Universities
P8.1.2	Water Footprints and Value Chains	<ul style="list-style-type: none"> Water footprints and value chains for at least three priorities of SADC Regional Industrial Strategies established At least three demonstration projects on water footprints and value chains undertaken 	250															MS/OS, RBOs/OSIC
P8.2	Nexus Approaches																	
P8.2.1	Regional Nexus Governance	<ul style="list-style-type: none"> SADC Secretariat cross-sectoral working group on nexus and at least two Member States established 	150															MS/OS, RBOs/OSIC
P8.2.2	Regional Nexus Assessment Study	<ul style="list-style-type: none"> Nexus Regional Study conducted in collaboration with other sectors 	250															SADC WD, MS/OS, RBOs/OSIC, IMWI
P8.2.3	Nexuses Implementation	<ul style="list-style-type: none"> At least three demonstration projects on the 3 nexuses in collaboration with other SADC Secretariat Directorates (e.g. I&S (Energy & Water) and FANR (Food Security), etc.). 	2,000															MS/OS, RBOs/OSIC, IMWI
		Sub-Total	2,790															
		GRAND TOTAL	141,000															

Key:

Code	Area of Contribution to the RISDP Immediate outcomes within Infrastructure & Services	Code	Area of Contribution to the RISDP in other Sectors
1	Harmonised Strategies and Policies	6	Gender Equality and Development
2	Enhanced Integrated Infrastructure	7	Industrial Development and Market Integration
3	Improved Capacity	8	Agriculture, Food Security and Natural Resources
4	Increased Access to Infrastructure and Services	9	Peace and Security
5	Increased Competitiveness and Market Liberalisation	10	Social and Human Development

Symbol	Description
	Direct, high-intensity contribution
	Direct, low-intensity contribution
	Indirect, low-intensity contribution



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