SADC-GMI
STRATEGIC BUSINESS PLAN (2018-2023)

May 2018

SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
TOWARDS A COMMON FUTURE

GROUNDWATER MANAGEMENT INSTITUTE

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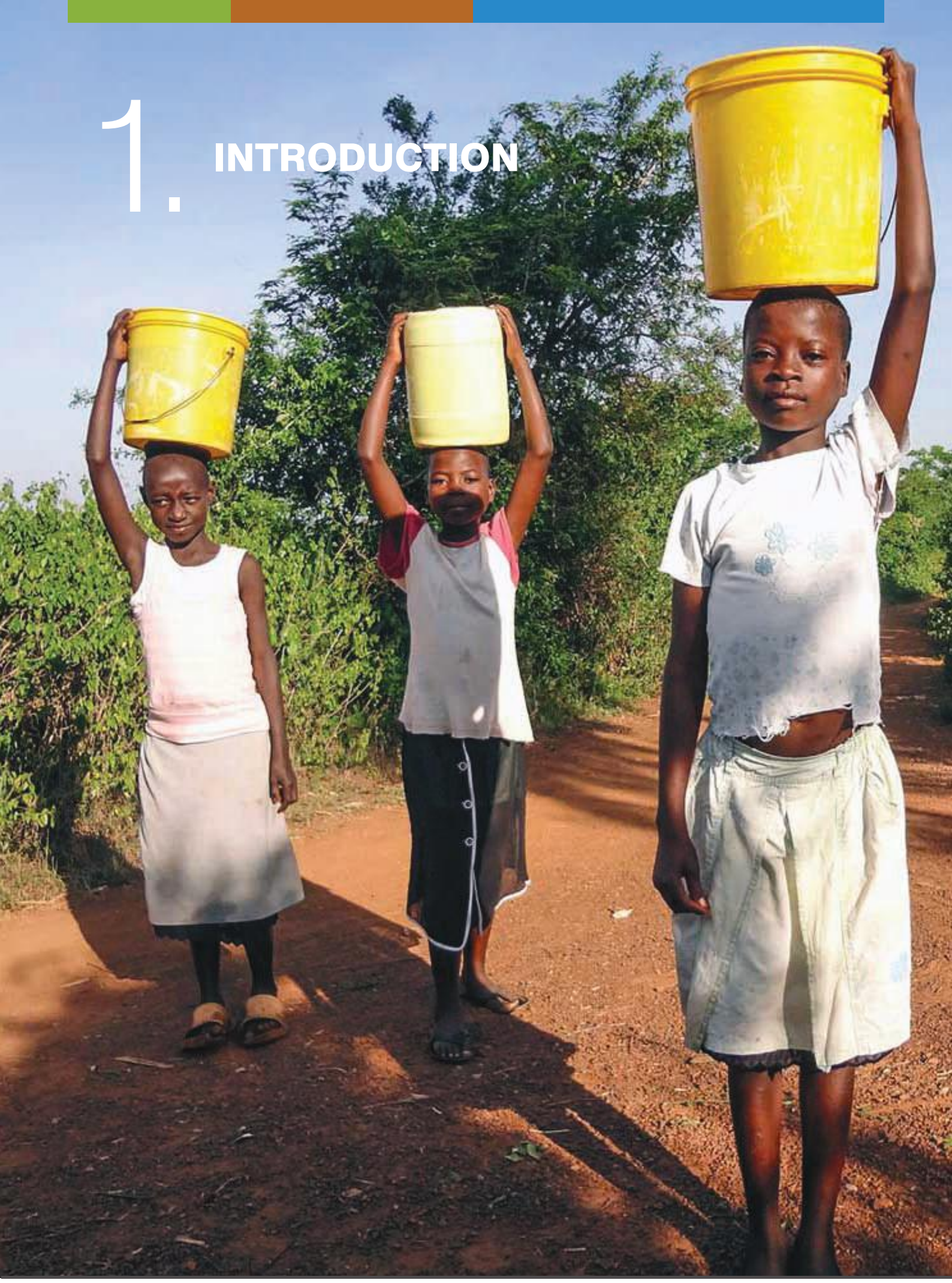


1. INTRODUCTION

1.1 Status quo of groundwater management in SADC

Groundwater makes up 8,5% of water use in the South African Development Community (SADC) region, although this percentage varies from country to country. The groundwater of the region is facing degradation from various land-use activities and over-abstraction in some areas.

There is a relatively good understanding of aquifer systems at the regional level: the transboundary aquifers have been delineated, and areas that are prone to groundwater drought have been identified. However, there is no coherent system for managing groundwater information across the region, and the institutions responsible for managing groundwater are generally under-resourced in terms of both financial and human resources. There is a lack of technical groundwater expertise in government, and often there is a gap in terms of regulations regarding sustainable management of groundwater in relation to both abstraction and pollution. Where regulatory instruments are in place, there is often no enforcement of the regulations or action taken against unlawful activities. In many cases, groundwater infrastructure is not maintained resulting in failure to supply communities. There is also limited coordination with other critical sectors such as agriculture, energy and mining. Overall, groundwater management in the SADC region is insufficient for sustainable management of this critical resource.

The groundwater resources of the region are captured in the SADC Hydrogeological Map and Atlas (SADC-HGM) (Pietersen et al., 2010) which aims to improve: (i) the understanding of groundwater occurrence in the SADC region; (ii) cooperation between member states; and (iii) understanding of groundwater resource management. It identifies a number of different aquifers types in the region: Unconsolidated intergranular aquifers, such as the Mushawe alluvial aquifer in the Limpopo River Basin, Zimbabwe; fissured aquifers: aquifer systems associated with Karoo formations which are found extensively throughout the region; Karst aquifers, which are extensively used in Botswana, Namibia, South Africa, Zambia and Zimbabwe; layered aquifers such as the Kalahari/Karoo aquifer system shared between Botswana, Namibia and South Africa; and low permeability formations normally associated with basement aquifers, found extensively throughout the SADC region.

Porous-intergranular aquifers, excluding layered aquifers, cover 45% of the total surface area of the SADC region. Low-permeability formations cover 33%; fissured aquifers 19% and karst aquifers 3% (Figure 1) (Pietersen and Beekman, 2016).Figure 1: Groundwater occurrence in SADC (source Pieterse and Beekman 2016)

Groundwater availability in SADC is estimated at 13% of the total estimated water availability of 7 199 m3 per capita per annum, but this figure is reduced by consideration of naturally poor water quality or pollution. This translates into groundwater availability of 2,491m3 per capita per year in renewable groundwater. Whilst this is higher than in Europe or Asia, only 1.5% of groundwater is utilized across the SADC region. With improved knowledge and management, this could be substantially improved to support local development in the region.

Groundwater resources in SADC play a major role in both urban and rural water supplies.

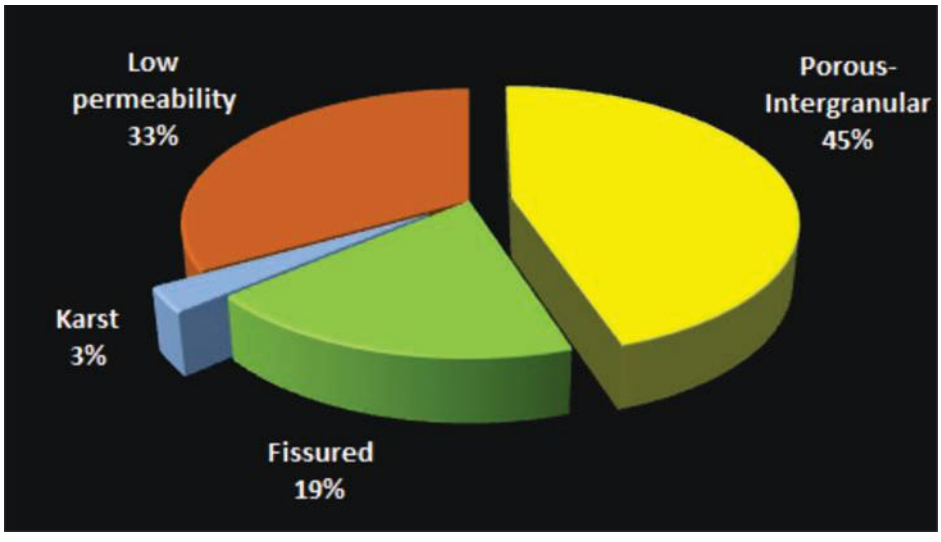


Figure 1: Groundwater occurrence in SADC (source Pieterse and Beekman 2016)

60 percent of SADC's population and 70 percent of rural population using groundwater as their primary water source. Groundwater is a reliable source of water to mitigate the effects of drought, and an important resource in the face of climate change. Increasing stress on water resources across the region due to high spatial and temporal variability, increasing water demand due to economic development, population growth and urbanisation, and climate change, is impacting on the development and use of groundwater.

The complex relations between surface and groundwater in the region, and the contribution of groundwater to river baseflow are not sufficiently understood. In the transboundary context, groundwater abstraction may impact negatively on surface and groundwater availability across international boundaries. Groundwater development and management should be addressed in the context of transboundary river basin management. However, the major transboundary aquifers in SADC are, in general, not coincident with the transboundary river basins which introduces complexities in how to manage them.

1.2 Motivation for the SADC-GMI

The coherent and effective management of groundwater could be substantially improved through coordinated efforts at local, national transboundary and regional levels in SADC. Groundwater and its management is an important instrument to be unlocked that further support water resource management strategies as well as play a role in supporting socio-economic development at grass-roots levels, especially with the onset of climate change.

Whilst there are a number of recognised challenges for the effective management of groundwater in SADC, such as the lack of and access to accurate data and information, especially around shared aquifers; limited technical capacity; lack of attention to groundwater in the legal framework for water; lack of policy harmonization between member states; poor recognition of the value of groundwater by decision makers; lack of attention to groundwater resources by water developers and planners; and limited transboundary governance mechanisms. There are several significant benefits to be obtained from improved transboundary consideration and protection and responsible use of groundwater in the SADC region through the exchange of information, harmonisation, shared research, development and management activities, particularly in the face of increasing demands and pressure on transboundary surface and groundwater. Furthermore, there is a real need for the management of shared aquifers needs to be addressed at both the national and the transboundary level. The SADC-GMI is a unique position to provide technical support and advocate for groundwater and its management in the SADC region.

Whilst there may be other institutions that offer groundwater services, there was an institutional vacuum for a coherent and coordinated approach to regional an, in particular, transboundary groundwater management. Therefore, the SADC-GMI is in a position to influence the regional and transboundary management of groundwater, through institutional strengthening, capacity building, advocacy and coordinated research and development.

1.3 Evolution of the SADC-GMI

In 2009, a process was initiated through the SADC Groundwater Management Programme to investigate the potential for the establishment of a SADC-GMI for Southern Africa, to provide capacity and support to SADC countries in addressing groundwater challenges in the region.

The investigation resulted in a decision to establish the Groundwater Management Institute as a not-for-profit company, registered in South Africa, and hosted by the Institute for Groundwater Studies (IGS) at the University of the Free State (UFS). A Service Level Agreement determines the relationship between the SADC-GMI and the IGS. This document, and a Memorandum of Association form the legal framework within which the SADC-GMI operates.

The first business plan (2010-2012) developed focusses entirely on the establishment on the SADC-GMI. Once established, the SADC-GMI had a strong internal focus and was in a process of setting-up its governance structure, looking at initial staff appointments and simplistic systems and process to function (Figure 2). Over the years, the SADC-GMI also build capacity internally with the appointment of technical staff and initiating a number of projects

that looked at improving groundwater management in the region, and also strengthening its own internal operations. However, a delay in establishment processes, resulted in little progress until 2014, when processes were put in place for the appointment of an Executive Director. Currently the staff complement consists of five employees.

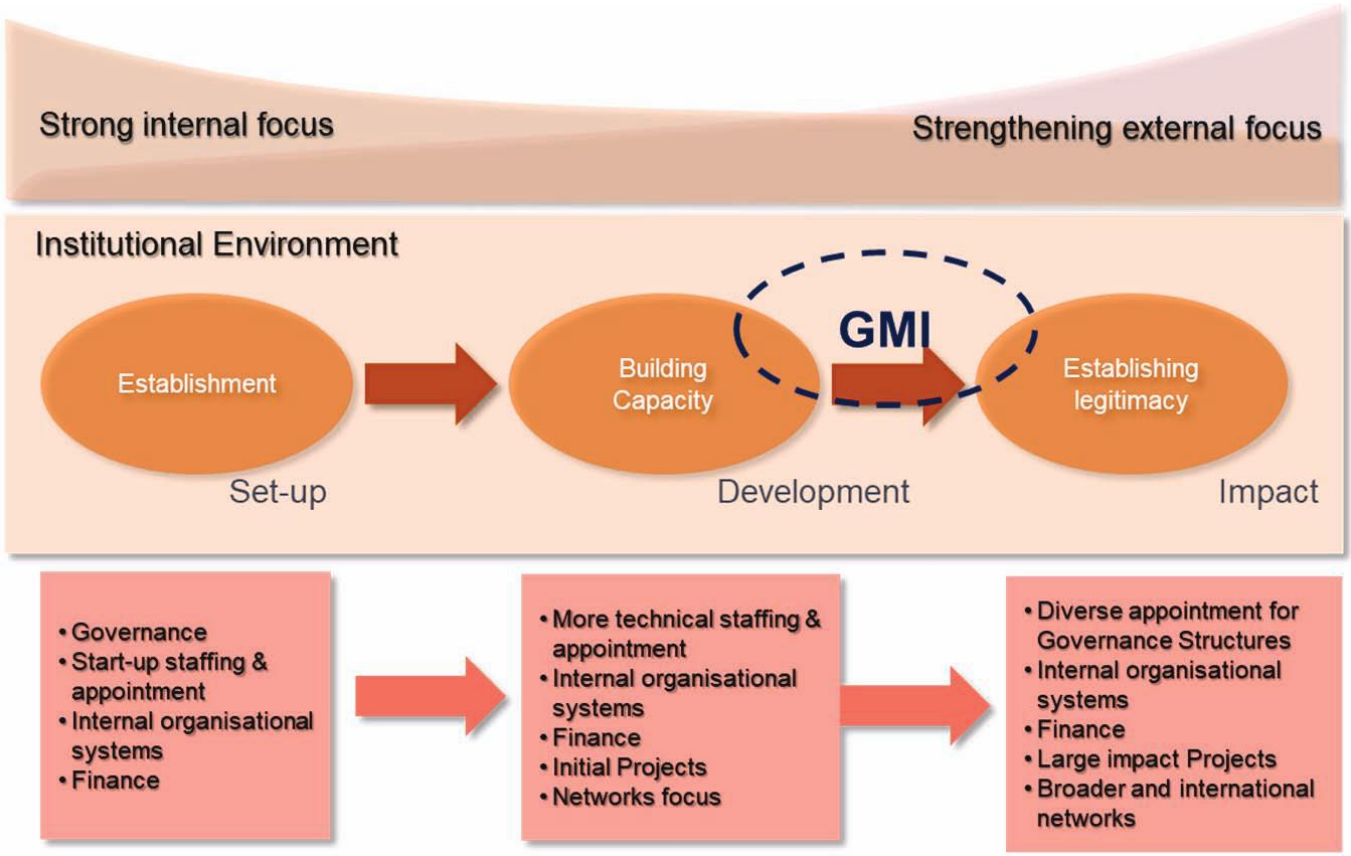


Figure 2: Institutional evolution

SADC-GMI's application for subsidiarity status was approved by the Executive Secretary in May 2017 and by the SADC Water Ministers' meeting (Ref. SADC/WM/1/2017/2B) held on 11th July 2017 in Ezulwini in Swaziland. The same was provisionally approved by the 37th SADC Council meeting held in Pretoria, South Africa (19-20 August 2017), pending the receipt of a 'Sustainability Plan' at the next Council Meeting of March 2018. Currently the SADC-GMI is waiting for a decision on whether it will be granted status as a SADC subsidiary organisation.

The SADC-GMI is now ready to shift out of its establishment phase and further develop its capacity to start having a greater impact in the region and this next phase (Figure 2) in particular will focus on the SADC-GMI establishing its legitimacy, by strengthening its governance structures, broadening its networks and looking at ways of integrating the various pieces of knowledge being generated on groundwater.

1.4 Purpose and structure of the Business Plan

The SADC-GMI was established to provide capacity and support to SADC countries in addressing groundwater management challenges in the region. To do so effectively, the SADC-GMI needs a sound strategic business plan and a well thought through financial sustainability plan. This document sets out the Strategic Business Plan for the SADC-GMI for the period 2018/9 – 2022/23. It outlines the SADC-GMI's, vision, mission, key objectives, and the key actions to be taken in the next five years.

This draft strategic business plan, including the financial sustainability plan, has been developed in consultation with staff of the SADC-GMI and key

stakeholders in the region, as well as on the basis of the 2010 – 2012 strategic business plan, and the establishment documents of the SADC-GMI. The document also addresses the issue of financial sustainability. The financial sustainability of the SADC-GMI requires that there is a reliable and sufficient income stream to cover its running costs, fund the activities of the business plan, and enable the institution to systematically develop its capacity and service offering.

The business plan is structured as follows:

CHAPTER 1 INTRODUCTION

- Sets out the introduction to the business plan containing the background, information on groundwater and its management in the SADC region and the to the evolution of the SADC GMI.

CHAPTER 2 DEVELOPING THE BUSINES PLAN

- Sets out the process of development of the Business Plan, including the results of the SWOT analysis and the environmental scan.

CHAPTER 3 STRATEGIC OFFERING OF THE SADC GMI

- Sets out the strategic case for the SADC GMI, dealing with the vision, mission, values, functions, strategic goals, objectives, actions, including prioritization and scheduling.

CHAPTER 4 GOVERNANCE ARRANGEMENTS FOR THE SADC GMI

- Sets out the management case to the SADC GMI, including the SADC context and the governance and hosting arrangements and organizational structure of the GMI.

CHAPTER 5 FINANCING THE SADC GMI

- Sets out the financial case for the SADC GMI, addressing issues of current funding, the estimated budget required under three scenarios (low, base case, and high). It also looks at possible funding opportunities and reporting and audit requirements.

CHAPTER 6 MONITORING AND REVIEW OF THE PLAN

- Sets out the requirements for monitoring and review of the plan.

CHAPTER 7 RISK ANALYSIS AND MITIGATION

- Seeks to understand the potential risks that could threaten the organisations sustainability and proactively outlines mitigation measurs to address these.

CHAPTER 8 TOWARDS IMPLEMENTATION

- Sets out th high-level roadmap to implement the actions in the plan.

APPENDICES APPENDIX A & B

- Appendix A contains information on the estimated budget and income under the low and high scenarios, with a two-year extension of the GEF-CIWA funding while Appendix B contains information on the relevant and rating of international donor institutions.

2. DEVELOPING THE BUSINESS PLAN

2. DEVELOPING THE BUSINESS PLAN

The process to develop the SADC-GMI Business Plan involved a suite of approaches to develop an in-depth understanding of the existing SADC-GMI business and financial strategies and what will be required to achieve alignment to its mandate, vision, objectives and functions. The process consisted of three distinctive phases:

Figure 3: Process of development for the Strategic Business Plan

The phases are elaborated below.

2.1 Review and scoping

The review and scoping phases allowed for an in-depth understanding of the institution and its evolution, as well as its successes and challenges to date. A desktop review of key strategy documents such as the 2009 Strategic Business Plan 2009, existing financial strategy was conducted to reflect on existing and potential funding streams, annual progress reports, among other key supporting documents such as the SADC RSAP IV, the SADC-GMI founding documents and Risk Management. The review also considered the historical, prevailing and projected/future operating environment(s) of the institution as a guide to favourably repositioning the institution's strategy for better chances of success.

In parallel, a series of bi-lateral interviews were conducted with a targeted and varied number of different stakeholders, with the aim of gathering substantiating/additional information from the SADC-GMI staff regarding their experience with and insights into working within the previous strategic business plan and financial sustainability plan. Interviews were held with the following categories of stakeholders:

- SADC Water Division staff: to determine process and alignment.
- Existing SADC-GMI staff: As the custodians and users of the instruments, the staff of SADC-GMI are favorably placed to provide feedback in terms of what works well, or what can be improved.
- Host institution: to investigate the nature of the symbiotic relationship
- Donors: to determine how the donor needs could be better met/aligned to
- Key institutional experts: to draw on their expertise, knowledge and prior expertise in successfully resolving similar institutional strategy challenges for other institutions.

The task will form part of an essential baseline establishment upon which the development of the new Strategic Business Plan and financial sustainability plan will be built.

The Environmental Scan was used as tool to help identify alternative, plausible and possible futures that may impact the sustainability of the SADC-GMI. These were grouped using the PESTLE model and the results were also included in the Strengths – Weaknesses – Opportunities – Threats (SWOT) Tables.

A series of workshops were held with the SADC-GMI staff to:

- Review the 2010-2012 Business Plan and Financials and update the baseline environment;
- Conduct the SWOT analysis;
- Conduct a high-level environmental scan;
- Provide feedback from the bi-lateral discussions held; and
- agree on the vision, mission and strategic actions to take forward; and comment on the annotated table of contents for the Business Plan.

The salient points that were gleaned from the various review and scoping activities are presented represented in the SWOT Tables (Table 1 and Table 2.

2.2 Development of the draft Business Plan

Based on the information acquired from the previous phase, Draft 1 of the Strategic Business Plan was developed and circulated to the SADC-GMI staff for comment. A workshop to review Draft 1 and take a more in-depth look at the risk and outline mitigations measures to address the risk was also workshopped. These inputs were taken into consideration for Draft 2 of the Strategic Business Plan.

This approach of engaging the SADC-GMI staff served to create ownership of the process and product. By ensuring that the key elements of the final strategic plan were informed by the views of the SADC-GMI staff, SADC Steering Committee, ownership in utilizing the tools and outcomes thereof is further guaranteed, improving the potential of success in the utilization/uptake of lessons from the products.

2.3 Finalisation of the Business Plan

Draft 2 was circulated to Member States and presented at the project Steering Committee on 26th March 2018 for broader inputs into the process. Inputs were incorporated for the final version of the Strategic Business Plan.

2.4 SWOT Analysis

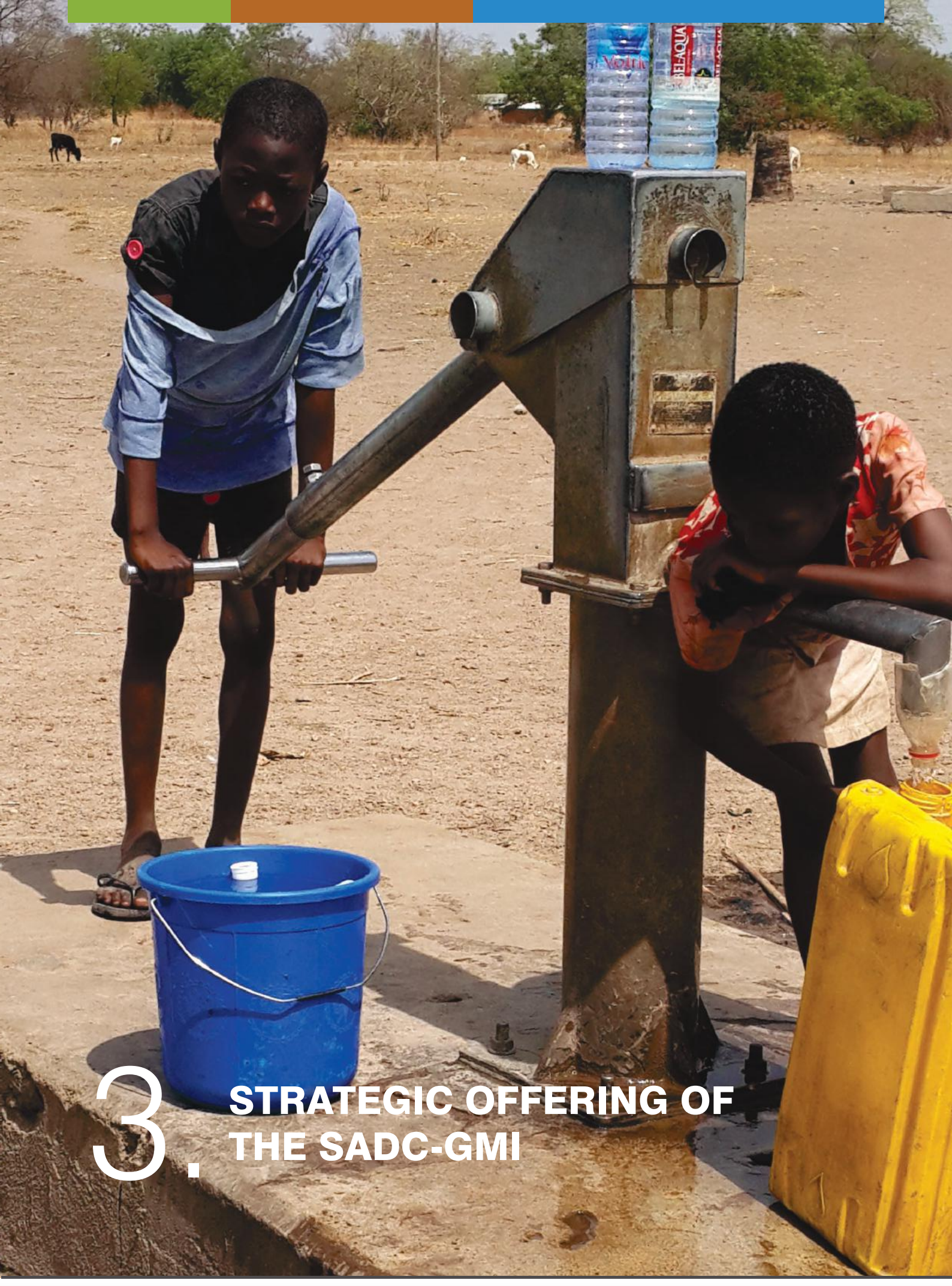
The salient points from the review and scoping processes are summarized in the SWOT analysis and highlights the Strengths to build on, the Opportunities and the Weaknesses and Threats to address. The SWOT categories were grouped using the PESTLE model. These results are presented in Table 1 and Table 2.

Table 1: The Strengths and Weaknesses internal to SADC-GMI

INTERNAL TO SADC-GMI		
	STRENGTHS	**WEAKNESSES**
ECONOMICAL / FINANCIAL		▪ Highly dependent on project funding ▪ Non-diversifies and weak income base ▪ Dependent on a single project where success will only be experienced in the longer-term. ▪ Limited short terms successes/experiences to build on to use as foundation to apply for more funding/grants
TECHNICAL	▪ Dedicated and competent international and diverse team ▪ In-house technical expertise and knowledge contributes to competitive advantage ▪ Technical capabilities to explore new areas of work ▪ Team has the ability to converse in Portuguese making it easier to interact with Mozambique/Angola	▪ Competencies in only English and Portuguese. No French-speaking team member at SADC-GMI, which can influence interaction with francophone SADC countries ▪ Still in the process of establishing own infrastructure and equipment ▪ Reliance on University infrastructure and systems create inefficiencies and introduces blockages ▪ Lean structure also limits expansion and work that can be conducted by staff members ▪ Groundwater is not s ufficiently integrated into the SADC protocol
LEGAL / REGULATORY / INSTITUTIONAL	▪ SADC-GMI built on a solid foundation with support from SADC member states, IGS and UFS which contribute to their competitive advantage ▪ Being considered as a SADC subsidiary or ganisation strengthens the status of SADC-GMI ▪ Has a legal status in South Africa as a NPO ▪ Sound leadership through Board and Steering Committee ▪ Even though there was a bumpy and slow inception period, the SADC -GMI is up and running in a short period of time ▪ Significant strategic partnerships: WRC, UFS, IGS, etc. ▪ Lean organisational structure ▪ Existing internal systems and policies are sound ▪ Existing MoU's with strategic partners qualifying brand	▪ Limited autonomy as an organisation, heavy reliance on UFS and its systems ▪ Limited office space, no room for expansion ▪ Some systems, policies and procedures are still under development ▪ Limited brand recognition, still fairly unknown ▪ Slow - turnaround in decision - making due to external donor systems and donor demands ▪ Credibility of the institution is overshadowed by host organisation being a recognised Academic Institution ▪
ENVIRONMENT	▪ With the onset of climate change, groundwater access and management has moved up on many country's agendas ▪ Some hydrogeological data available that provides insights on groundwater situation	▪ Inconsistency in the availability of data available across countries

Table 2: The Opportunities and Threats external to SADC-GMI

EXTERNAL TO SADC - GMI		
	OPPORTUNITIES	**THREATS**
POLITICAL	▪ Support of SADC member states ▪ Potential to enhance Regional cooperation, e.g. through collaboration on transboundary aquifers ▪ Groundwater may be used as an opportunity to feed political agenda, hence support will be given ▪ Influence of High value brand (SADC)	▪ Lack of political/compliance will on some occasions and inadequate involvement of politicians in certain projects ▪ Limited regional stability and regional integration ▪ Uncertain and occassionally limited cooperation from certain member states ▪ Poor communication from member states and limited willingness to share data
ECONOMIC/FINANCIAL	▪ Accessing climate change financing ▪ Long term potential for funding by Member states	▪ Mismanagement of Funds may lead to donors snubbing ▪ Differing requirements from donors ▪ Difficult to access short-term funding ▪ Regional economic dynamics ▪ Lack of sustainable funding ▪ Constraints on the availability of domestic funds (Member States) resulting in dependence on external financial resources ▪ High levels of compe tition for limited funding sources (crowded donor space) ▪ Users of groundwater may have their income affected by poor groundwater management, e.g. farmers
TECHNCIAL	▪ Leverage reputation as a Centre of Excellence ▪ Important niche in the region and opportunity to improve use and understanding around remote sensing technologies for mapping and cell phone technology ▪ Strategically places to become recognised as an international brand ▪ Exploration of groundwater in the Water-Energy-Food nexus ▪ Broad mandate ▪ Ability to provide pragmatic solutions at various levels, from local to regional ▪ Ability to explore new work for member states as it relates to ground water management and promote conjunctive use and operating models ▪ Uncertainty around fracking impacts on groundwater presents an opportunity for leadership in the Region	▪ Increasing levels of groundwater pollution ▪ Time pressure and limited capacity to implement current project ▪ Competition with other regional organisations, e.g. Waternet, GWP. ▪ Limited awareness on the importance of groundwater and its management ▪ Limited data on groundwater ▪ Quality of groundwater infrastructure/boreholes is often poor ▪ Varying hydrogeological conditions limit standardisation and harmonisation of groundwater development practices ▪ Unharmonised data collection tools ▪ Lack of monitoring and consolidated data and information systems for tracking groundwater management ▪ Various impactors of groundwater, especially transboundary aquifers and new technologies used in sanitation and WRM need to be better understood ▪ Computer rights are controlled by UFS - no SADC-GMI computer presence for example o Lack of knowledge/understanding of transboundary aquifers
LEGAL/REGULATORY/INSTITUTIONAL	▪ Strong partne rships with academic institutions and RBOs in the region ▪ Regional initiative ▪ Potential to establish an association of professional hydrogeologists in the region ▪ Potential for Private partnerships in the region to exploit technological integration opportunities	▪ Delayed establishment and staffing of SADC-GMI has created delays in implementation of business plan/project, especially with no time extension ▪ Fluctuating member state policies ▪ No legal mandate to enforce decisions/policies made, have to rely on persuasion and advocacy ▪ Composition and rotation of board members ▪ Board member criteria not based on applicability/credibility, but around representatively ▪ Changes to contractual agreements with UFS ▪ High-turnover of SADC Secretariat, SADC member states staff and weak capacity in members states to contribute resources, either in kind or funding ▪ Institution uncertainty - currently dependent on one project funding only ▪ Limited brand recognition ▪ Lack of legislation on ground water management and weak enforcement ▪ SADC-GMI staff are stretched in terms of capacity to meet project needs in the extremely limited timeframe ▪ Institutional independence from UFS: Overshadowed by UFS – SADC-GMI brand does not exist on campus, e.g. the Director of the SADC GMI has a student status
ENVIRONMENT	▪ Climate crisis provides opportunity for focus and action ▪ Climate change may mandate the artificial recharge of groundwater to become more critical ▪ Scope for the i dentification of transboundary aquifers in the region	▪ Uncertainty of impacts from climate change and potential exploitation of groundwater instead of sustainable management may increase regional conflict ▪ Location in Bloemfontein often isolates the SADC-GMI offices and makes it cumbersome to visit. Key partners prefer to go to Johannesburg/Pretoria as easy access from OR Tambo airport ▪ Fracking impacts on groundwater



3. STRATEGIC OFFERING OF THE SADC-GMI

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3.1 SADC-GMI: The Value Proposition

Recognizing the increasing importance that groundwater and its management plays in the SADC region, the SADC-GMI was established to become a "Centre of Excellence" for groundwater management and groundwater dependent ecosystems in the region. SADC-GMI is in a unique position to serve as an interlocutor with national, regional transboundary and international groundwater initiatives and institutions.

As a "Centre of Excellence", the SADC-GMI will have the ability to lead, advocate and coordinate groundwater activities in the region, such that there is a coherent strategy for groundwater, as part of broader water resource management and in meeting the socio-economic and development goals of SADC. The support of SADC Water Division further cements the key coordination and advocacy role that the SADC-GMI plays in groundwater management.

The vision, mandate, and strategic objectives are presented below.

3.2 Vision and Mandate

The vision of the SADC-GMI is:

"To be a Centre of Excellence in promoting equitable and sustainable groundwater management in the SADC region"

The mandate for SADC-GMI has not shifted since its establishment. SADC-GMI's core mandate is to promote sustainable groundwater management and providing solutions to groundwater challenges in the SADC region.

3.3 Mission

The vision and mandate is brought to life through the following 6 mission statements:

- **Advocate, raise awareness and provide technical support** in SADC around sustainable groundwater management through the dissemination of information and knowledge management
- **Create an enabling environment** for groundwater management through policy, legal and regulatory frameworks
- **Promote action-oriented research**
- **Promote impact-oriented capacity building** and training for groundwater management in the region
- **Lead and promote regional coordination** for groundwater management
- **Support infrastructure development** for groundwater management

3.4 Values

Our values underpin the way in which we operate as an institution. SADC-GMI uphold the following values as part of their daily operation:

Integrity

- As an advisory institution, SADC-GMI will act with integrity.

Diversity

- The diversity of SADC and its people is valued as a strength and will be promoted during decision-making.

Equity

- Groundwater resources are often shared resources and the benefits arising from its use will be equitable

Accountability and Transparency

- Accountability arises from responsible and transparent behaviour. To act as a trusted advisor for groundwater management in SADC, the SADC-GMI will have transparent communication and decision-making and be accountable to Member States.

Excellence

- SADC-GMI will demonstrate leadership and excellence in groundwater management in the SADC region.

Professionalism

- SADC-GMI will behave in a professional manner in all interactions.

Collaboration and Partnership

- SADC-GMI will lead collaborative groundwater initiatives for national and regional groundwater management and will develop strong partnerships with key stakeholders in the sector.

3.5 Strategic Goals

The previous business plan outlined the steps required to establish the SADC-GMI as an organization, with the requisite staff and build awareness around the SADC-GMI. This was achieved. This next business plan needs to advance the SADC-GMI from the establishment phase into the next phases of building capacity and developing legitimacy. In light of this, the two primary goals for SADC-GMI over the next five years is to:

i. be recognized as a Centre of Excellence in groundwater management; and

ii. be financially sustainable.

The required objectives and actions to achieve these goals are elaborated below.

3.6 Strategic Objectives and Actions

The last few years saw the establishment of the SADC-GMI as an organisation. Since its inception, the SADC-GMI has grown from its three core staff members to 5 members in total and now is required to build its capacity and deliver on its mandate as an institution. To attain its vision and to be recognized as a Centre of Excellence, SADC-GMI is required to further its organizational development, demonstrate leadership, advance research and knowledge management and deliver skills training for groundwater management, as well as provide technical advisory support in SADC.

Noting that institutions typically need to progress through a number of developmental phases, SADC-GMI has ensured that they are well established and ready to further along the developmental trajectory towards building capacity and establishing their institutional legitimacy. Hence, going forward, the next five years is crucial to not only build up the its capacity and capabilities whilst developing the institution's brand.

Strategic Objectives are the continuous improvement actions and break down the more abstract concepts like mission and vision into actionable steps. There are four strategic objectives that will support SADC-GMI towards furthering SADC-GMI as a Centre of Excellence. These are:

- **STRATEGIC OBJECTIVE 1:** Strengthen the SADC-GMI
- **STRATEGIC OBJECTIVE 2:** Improve knowledge management for groundwater management;
- **STRATEGIC OBJECTIVE 3:** Build national and regional institutional capacity in groundwater management; and
- **STRATEGIC OBJECTIVE 4:** Lead national and regional coordination for groundwater management.

Figure 4: Strategic objectives for SADC-GMI

3.6.1 STRATEGIC OBJECTIVE 1: Strengthen the SADC-GMI

SADC-GMI needs to further strengthen and develop its operations, both in terms of oganisational capability and internal efficiency. This requires the development and strengthening of the staff cohort whilst making strategically important improvements in the business processes within SADC-GMI. The actions outlined below, give an indication of how to achieve this going forward.

The required actions are:

Strategic Action 1a: Continue to strengthen institutional governance

- **Formalise all governance structures** and develop appropriate ToRs
- Annually **review the performance of governance** structures.
- **Review the criteria for the SADC-GMI Board of Directors** towards ensuring sufficient and appropriate skill sets as well as addressing issues of sustainability of strategic direction.
- **Ensure on-going and appropriate levels of reporting** to support adaptive management and good governance.

Strategic Action 1b: Formalise SADC subsidiarity status

- **Finalise approval of the SADC-GMI subsidiarity status.** SADC-GMI's application for subsidiarity status was approved by the SADC Executive Secretary and by the SADC Water Ministers in 2017 and provisionally approved by the 37th SADC Council's meeting, pending the finalisation and submission of a Financial Sustainability Plan (FSP). The SADC-GMI Financial Sustainability Plan will be presented at the various governance structures, prior to presentation at the next SADC Council's meeting in August 2018.

- **Undertake formal country hosting arrangements** with Department of International Relations and Cooperation (DIRCO) in South Africa once subsidiarity status is achieved and put in place governance arrangements.

Strategic Action 1c: On-going organisational development

- **Streamline internal business processes.** Policies and frameworks to support SADC-GMI should be developed to streamline internal business processes. These may include policies around Human Resources (labour, income tax, remuneration, staff incentives, professional conduct, staff appraisal systems and staff retention and exiting strategy, training policies), travel and disbursements, asset and equipment management, operationalising the values and mission, amongst others.
- **Improve relevant systems and infra-structure.** The SADC-GMI will need to continue the development of relevant systems and infrastructure that support the organisation such as those billing and invoicing, project and data management, amongst others.
- **Develop protocols and guidelines to streamline internal coordination and administration** will also be required, such as progress reporting, financial reporting, internal coordination, donor funding guidelines, SADC coordination, Monitoring and Evaluation and data management.
- There is a need to continue the **improvement of Supply Chain Management and associated systems.** This would include the development of databases for preferred service providers, development of procedures and protocols for procurement. This would include enabling interfaces with the different development partner systems and procurement requirements.
- Linked to the **institutional development, the staffing requirements will need to be reviewed.** The use of different models for ensuring that SADC-GMI have access to technical, legal and additional administrative (accounting and tax) skills will need to be considered in reflecting upon the organisational development route.
- **Review geographical location and hosting arrangements.** The current location of the SADC-GMI on occasions present challenges for access to the organisation by clients, donors, partners and well as from staff. The location also adds additional travel cost.
- **Develop and office expansion plan.** Office space needs to be reviewed. The current office space is at capacity and the need to have a more conducive office space to enable growth and development will become increasingly important.

Strategic Action 1d: Implement steps toward achieving financial sustainability

- **Annual monitor, review and update of the Strategic Business Plan.**
- **Diversify income/funding streams.** The financial sustainability of SADC-GMI requires the diversification of funding sources, as outlined in the Financial Sustainability Plan. This will require an on-going targeted drive to secure such funding.
- Aligned with the institutional development of the SADC-GMI is the need and **monitor progress with regards to the Financial Sustain-ability Plan** that has been developed in 2018. On-going adaptive management will be important and as such monitoring and regular reporting will be critical.

Strategic Action 1e: Building the SADC GMI Brand

- There is an on-going need, in **parallel with the institutional development of SADC-GMI, to build the brand and identity of the SADC-GMI.** This will require the development of a communication and engagement strategy together with an implementation plan. This action is currently underway.

3.6.2 STRATEGIC OBJECTIVE 2: Improve groundwater knowledge management in SADC

SADC-GMI should become an internationally recognised groundwater knowledge hub and SADC resource center on groundwater through information coordination and dissemination, data harmonization, sharing of best practices and technologies and general awareness creation of groundwater management.

This can be achieved through the following actions:

Strategic Action 2a: Improve shared access to data bases and information systems related to groundwater management

- Investigate methods to **improve access to data and information on groundwater**
- This will require buy-in and agreements from Member States and due to the sensitivities around data and SADC-GMI can support in this through the development of **protocols and standards for data-sharing** and use.

Strategic Action 2b: Develop a unified calendar for groundwater management events and training for distribution

- These events provide a **provide a common platform for discussion by member states of the challenges that they are facing in effective groundwater management.** This should be populated in conjunction with the Member States, so that the Calendar is fully reflective of all groundwater related activities.
  - o Groundwater seminars and workshops
  - o Groundwater training sessions

- Identify other key strategic events and ensure inclusion of groundwater on its agenda

Strategic Action 2c: Plan, coordinate and host the Annual SADC Groundwater Conference

- This event will support the **cross-pollination of skills relevant to groundwater management and start to support the establishment and development of a community of practice for groundwater management.**

Strategic Action 2d: Coordination and publication of the SADC Groundwater Journal

Strategic Action 2e: Develop thought leadership and advocacy materials/pieces

- Production of **research reports and papers**
- Translating relevant **project work into knowledge pieces,** lessons learned
- Translating relevant research products into knowledge pieces and lessons learned
- **Sharing best-practices** related to groundwater management
- **Guiding the SADC groundwater sector** in its thinking and strategy

Strategic Action 2f: Knowledge transfer through dissemination and awareness raising

- Preparation and dissemination of appropriate materials to raise awareness
- The use of knowledge sharing platforms, such as the SADC-GMI website
- Coordinate knowledge transfer with relevant international ground water management institutions and share best practice between member states, particularly on transboundary groundwater management

3.6.3 STRATEGIC OBJECTIVE 3: Build regional institutional capacity for groundwater management

Water resource development challenges will only intensify as countries across the SADC region develop their social economies and as climate uncertainties are realised. Equally, there is a growing shortage of water resource managers and hydro-geological specialists that can support and guide the management of an increasingly scarce resource. Part of this challenge will be addressed through information dissemination and knowledge management, however, institutional capacity to manage groundwater continues to be a challenge. Skills development will go a long way to institutionalise groundwater management and build the skills and resource base for taking action for groundwater management initiatives across SADC. This can be achieved through the following actions:

Strategic Action 3a: Providing support to institutions to strengthen policy, legal and regulatory frameworks for groundwater management, will be important in developing both in-country and regional approaches.

- **Supporting Member States through the provision of advisory services towards the strengthening of policy, legal and regulatory frameworks** will entail not only addressing the various dimensions of the governance framework but will importantly entail the exchange of knowledge and skills. Hence, training interventions will be an important aspect of the improvement of governance frameworks.
- Providing **advisory support in attaining alignment in governance frameworks within transboundary settings** comes with a distinctive set of challenges but noting the prevalence of transboundary aquifers is critically important. The development of capacity across the various member states becomes important in building alignment between member states.

Strategic Action 3b: Develop and implement a capacity building strategy and implementation plan for capacity building and training for groundwater management in SADC

- Capacity building has been identified as one of the most important functions of the SADC-GMI. In order to support effective capacity building on groundwater management in the region, the **SADC-GMI must develop a capacity building strategy** that will include working with existing capacity building initiatives and, where necessary, establishing new capacity building initiatives. A training needs assessment is underway and will need to be expanded to understand the groundwater institutional capacity in the region to inform the Capacity Building Strategy and its subsequent plan for implementation.
- **Develop a Capacity Building and Training Calendar.**
- **Develop an Implementation plan and monitor progress against the Plan.**
- In support of the capacity building strategy and implementation plan, there will be a need **to develop various training materials and tools.** These would be developed systematically over time and with the inputs of specialists and experience from capacity building and training processes.
- In order to build capacity in the region, the SADC-GMI will, over time, provide assistance in the development of monitoring and data systems; develop capacity building programmes for member states in raising finances for sustainable groundwater monitoring and management; develop capacity building and training materials; commission capacity building and training programmes and co-ordinate its activities with capacity building and training initiatives through other institutions.
- As part of the development of the capacity building strategy and implementation plan, it will be essential to **map out the various institutional platforms that will support the ongoing capacity development.** These would include the more formalised structures that are enabled by legislative instruments but would also include forums and support groups.

Strategic Action 3c: Establish the SADC Professional Association of Hydrogeologists

- As a key dimension **of building a cohort of capacitated hydrogeologists, the establishment of the SADC Association of Hydrogeologist supports an improved professionalisation** of this specialist field through the recognition of qualifications and experience, through the exchange of knowledge and best practice as well as tailored capacity development opportunities to improve practice across the SADC region.

3.6.4 STRATEGIC OBJECTIVE 4: Lead regional coordination for groundwater management

A key role for SADC-GMI is to lead national and regional coordination for groundwater management, with respect to projects (development, acquisition, coordination, management and oversight) and research. This ensures effective use of the limited resources currently available for groundwater management and promotes knowledge transfer and upskilling (objectives 2 and 3). Importantly, this objective also talks technical advisory services that SADC-GMI can offer Member States. In addition, SADC-GMI is in a unique position to contribute to various other SADC processes, such as the sub-committee on hydrogeology, SADC Water Resources Technical Committee, AMCOW Groundwater Commission (amongst others) to ensure the inclusion of groundwater management in activities undertaken.

This can be achieved through the following actions:

Strategic Action 4a: Coordination with the SADC Secretariat wrt to groundwater management

Strategic Action 4b: The acquisition, coordination and/or implementation of key strategic projects

- This will enable the SADC-GMI to **develop technical insights and best practice** to further hydro-geological sciences across the SADC region. Such project opportunities include:
- Sustainable groundwater management in SADC
- Groundwater monitoring and data management
- Groundwater development and infrastructure management
- Transboundary Diagnostics Analysis and Strategic Action Plans
- Networking will be a key strategy underpinning the work of the SADC-GMI.

Strategic Action 4c: Technical advisory services for groundwater cooperation and integration

- The SADC-GMI will assist in the **coordination of groundwater activities and processes in the SADC region to ensure national, regional and transboundary management of groundwater,** and liaise with international and SADC based organizations, River Basin Organisations and governments in this regard. Networking and partnership establishment will be a key strategy underpinning the work of the SADC-GMI.

Strategic Action 4d: Coordinate groundwater research

- **Develop and implement a consolidated and aligned groundwater research roadmap,** together with SADC Structures, Member States, relevant institutions and partners.
- **Lead and support institutional coordination** in undertaking groundwater research.
- **Deployment of interns** to support research activities, where appropriate.

Strategic Action 4e: Resource mobilisation for groundwater management in SADC

- The SADC-GMI has a dual role in relation to financing. One role will be to raise and manage funds for the SADC-GMI programmes and staffing and the other role is to assist in the **mobilisation of funds for groundwater research, communication and awareness raising, capacity building and training and key strategic projects at the national, regional and transboundary levels** in the SADC region, as well as support to the member states linked to broader SADC RSAP initiatives. The latter forms part of their regional coordination objective.

3.7 Summary of the Strategic Actions

The table below presents the summary of the Strategic Actions for the SADC-GMI to take forward.

Table 3: Summary of Strategic Objectives and Actions

STRATEGIC OBJECTIVE 1: Strengthen SADC GMI - **Strategic Action 1a:** Continue to strengthen institutional governance - **Strategic Action 1b:** Formalise SADC subsidiarity status - **Strategic Action 1c:** On-going organisational development to achieve autonomy - **Strategic Action 1d:** Implement steps toward achieving financial sustainability - **Strategic Action 1e:** Building the SADC GMI Brand	**STRATEGIC OBJECTIVE 2: Improve Knowledge Management** - **Strategic Action 2a:** Improve shared access to data bases and information systems related to groundwater management - **Strategic Action 2b:** Develop a unified calendar for groundwater management events and training for distribution - **Strategic Action 2c:** Plan, coordinate and host the Annual SADC Groundwater Conference - **Strategic Action 2d:** Coordination and publication of the SADC Groundwater Journal - **Strategic Action 2e:** Develop thought leadership and advocacy materials/pieces - **Strategic Action 2f:** Knowledge transfer through dissemination and awareness raising
STRATEGIC OBJECTIVE 3: Build Institutional Capacity - **Strategic Action 3a:** Providing support to institutions to strengthen policy, legal and regulatory frameworks - **Strategic Action 3b:** Develop and implement a capacity building strategy and implementation plan for capacity building and training for groundwater management in SADC - **Strategic Action 3c:** Establish the SADC Professional Association of Hydrogeologists	**STRATEGIC OBJECTIVE 4: Lead Regional/National Coordination** - **Strategic Action 4a:** Coordination with the SADC Secretariat wrt to groundwater management - **Strategic Action 4b:** The acquisition, coordination and/or implementation of key strategic projects - **Strategic Action 4c:** Technical advisory services for groundwater cooperation and integration - **Strategic Action 4d:** Coordinate groundwater research - **Strategic Action 4e:** Resource mobilisation for groundwater management in SADC

4. GOVERNANCE ARRANGEMENTS FOR SADC-GMI

4. GOVERNANCE ARRANGEMENTS FOR SADC-GMI

4.1 SADC Institutional Landscape

The SADC region has unevenly-distributed water resources, complicated by a variable and changing climate. In addition, around 70% of the water resources of the region are shared between more than one Members State. This compels for a joint concerted effort for the sustainable management, protection, and equitable use of shared watercourses in order to support and promote the social and economic development of SADC member states. As a result, various institutions are tasked with the preservation, regulation and development of SADC transboundary water resources (Gun, 2012).

Established in 2002, the African Ministers' Council on Water (AMCOW) is a specialised committee for Water and Sanitation in the African Union. The Council is the regional ministerial forum on water in Africa comprising of Ministers of water from 53 Member states. In 2007 at the Sixth Ordinary Sessions, AMCOW adopted a number of key groundwater resolutions in particular, the council resolved that the it would be the custodian of a continent- wide strategic groundwater initiative. AMCOW promotes cooperation, security, social and economic development, and poverty eradication among member states through the effective management of Africa's water resources and provision of water supply services in a bid to realize the 2025 Africa Water Vision and the implementation of the New Partnership for Africa's Development (NEPAD) goals.

An ambit of AMCOW the Africa Groundwater Commission is a sounding board for implementing decisions by AMCOW and other multi-stakeholder consultations to provide strategic advice on collaborative and coordinative aspects on groundwater resources management in Africa (Braune et al., 2008).

SADC is a Regional Economic Community of the African Union. Comprising of 15 Member states, SADC is committed to regional integration and poverty eradication within Southern Africa through economic development and ensuring peace and security. The work of SADC is coordinated by eight (8) primary Institutions including the SADC secretariat. As a Principal Executive Institution of SADC, it is responsible for strategic planning, facilitation and co-ordination and management of all SADC programmes.

Within the SADC secretariat, a Water Division which falls under the Directorate for Infrastructure and Services, is responsible for coordinating, monitoring and facilitating regional water related initiatives in collaboration with Member states under the guidance of the Revised Protocol on Shared Watercourses, which was ratified in 1988 and revised in 2000. The Protocol aims to promote coordinated co-operation in the management, protection and utilisation of shared watercourses in the region and to advance the SADC agenda of regional integration and poverty alleviation. The overall goal of the Protocol is to contribute to the improvement of the quality of life of people in the SADC region through promoting co-operation in all water matters in the region for sustainable and equitable development, proper usage, and management of water resources. The Protocol, however, is stronger on surface water than on shared management of groundwater resources.

The Protocol aims to ensure that water in Southern Africa is a sustainable resource through the coordinated management, protection, and equitable use of its shared watercourses, and views water management as a pivotal instrument for promoting peace in the Southern African region through transboundary and regional cooperation and harmonisation of legislation, policies and strategies. It emphasises the equitable use of water resources, under the framework of Integrated Water Resources Management, taking into account geographic and climatic factors, and the socio-economic needs of member states.

Other key policies, strategies, and regulatory frameworks that guide the operation of the SADC Water Division include:

- The **Regional Strategic Action Plan on Integrated Water Resources Development and Management (RSAP-IWRM)** which sets out the implementation plan for the water component of the SADC Regional Indicative Strategic Development Plan (RISDP) and the Regional Infrastructure Development Master Plan (RIDMP). Currently, the RSAP is in its fourth

iteration, scheduled to run from 2016 to 2020. RSASP IV prioritises the development and management of groundwater through a number of key interventions namely:
  - o Institutionalising the SADC Groundwater Management Institute to serve as a Centre of Excellence for groundwater in the region.
  - o Strengthening institutional capacity for the sustainable management of groundwater in SADC
  - o Advancing knowledge on transboundary water and national groundwater
  - o Promoting groundwater infrastructure management and development
  - o Management and use of groundwater in Oceanic States

- The **Regional Water Policy, 2005** is aimed at providing a framework for sustainable, integrated and coordinated development, utilisation, protection and control of national and transboundary water resources in the SADC region. This policy is intended to support the SADC Common Agenda of socio-economic development and regional integration and improvement of the quality of life of all people in the region.

- The **Regional Water Strategy, 2006** gives effect to the Regional Water Policy is aligned to NEPAD and is implemented regionally with RSAP. The Strategy provides strategic direction to the Water Division for coordinating the development of the water sector in SADC. It further provides strategic direction to shared watercourse institutions and Member States in the development and management of shared watercourses. In addition, it indicates regional priorities of harmonising national water policies and integrated management of water resources in Member States.

The SADC Water Division reports to the SADC Council of Ministers through the Integrated Committee of Ministers (ICM) on the activities of the water sector.

Established as part of the Water Sector Organs in the Revised Protocol the **Water Resources Technical Committee (WRTC)** is a technical clearing body for the SADC Water Sector. Comprised of national directors responsible for Water in SADC Member States the Committee is responsible for:

- providing strategic direction to the RSAP;
- providing technical support and advice to the Integrated Committee of Ministers regarding implementation of the Protocol;
- assessing and approving RSAP projects;
- advising and coordinating the establishment of project steering committees; and
- supervising all other RSAP operations.

Additionally, the committee is responsible for addressing issues that might have any implications on the implementation of the Protocol and the RSASP-IWRM.

The SADC region consists of 15 major shared river basins and nine River Basin Organisations (RBO). Established in terms of the Protocol, these water sector institutions are umbrella organisations for basin-wide water resources management. RBOs are generally tasked with:

- monitoring, investigating, co-ordination and regulating basin activities;
- planning and financial management; and
- developing and managing infrastructure.

Within SADC, RBO's are advisory bodies and facilitate exchange of information and knowledge between basin Member States as well ensure alignment and harmonization of national water policies and strategies. These institutions currently lack in autonomous decision-making authority over shared water courses, developing infrastructure and insufficiently staffed. SADC shared water institutions provide on a regular basis or as required by the Water Division, all information necessary to assess progress on the implementation of the provisions of the SADC Protocol. The Water Division is tasked to strengthen, identify, and mobilise resources for the RBOs.

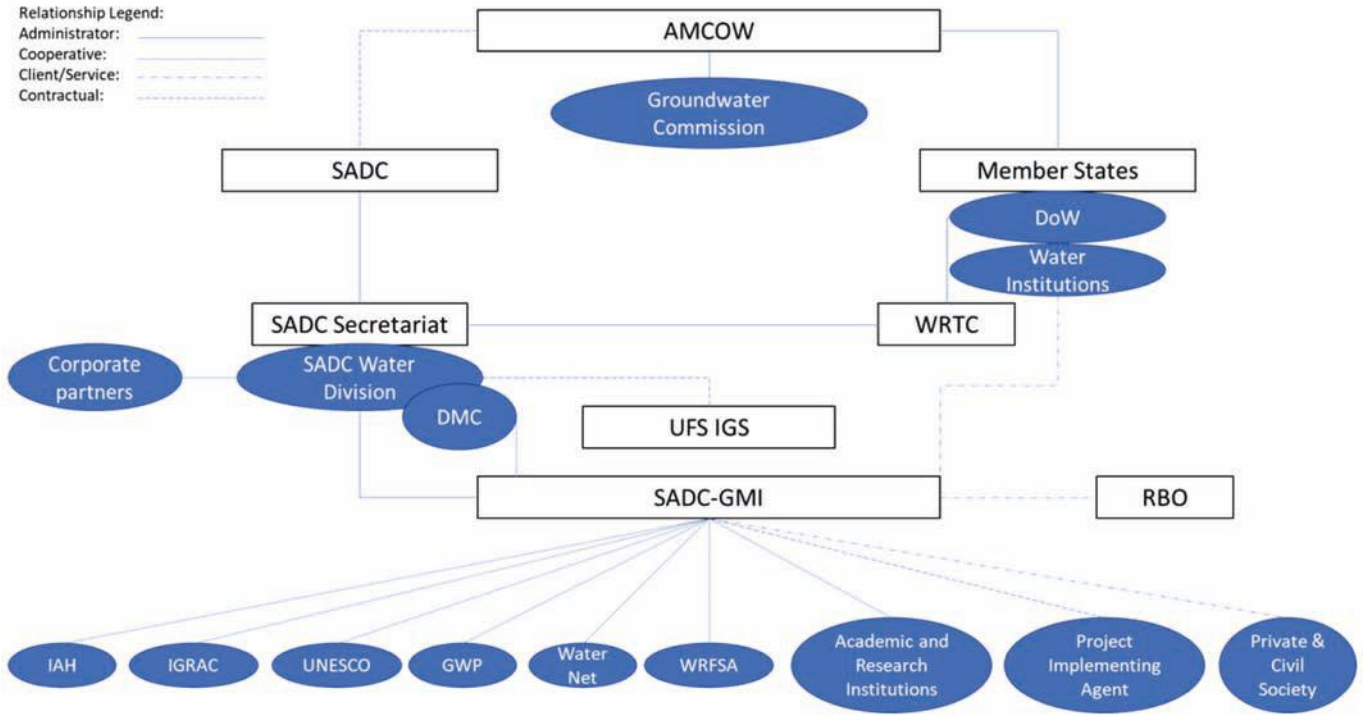

Figure 5: Institutional Landscape for Groundwater Management

Managed by the SADC Secretariat's Water Division, the **SADC-GMI** promotes sustainable groundwater management and provides solutions to groundwater challenges in the SADC region through creating an enabling policy, legal and regulatory environment, capacity building, advancing research, supporting infrastructure development, and enabling dialogue and accessibility of groundwater information. SADC-GMI also serves as a focal interlocutor with national, regional and international groundwater initiatives.

Established to be a Centre of Excellence on groundwater the Institute draws its mandate from the fourth RSAP furthermore the RSAP guides the operation and development of the SADC-GMI. The Institute is hosted by the University of the Free State's Institute for Groundwater Studies (IGS) on behalf of the SADC Secretariat. For the GMI to collaboratively strengthen the management and development of groundwater for social and economic development in SADC there is an ecosystem of institutions that need to be considered.

4.1.1 SADC- GMI Institutional Relationships

As noted there are various institutions that are tasked with the strategic planning, regulation and management including the development of SADC shared water courses. The SADC-GMI will interact as well as maintain and explore relationships with these institutions at different levels:

Administrative relationships: are those related to the governance of GMI by SADC, the Host institution and the Member States. Of particular importance is the SADC Secretariat as represented by the Water Division and the WRTC in its technical oversight role. The GMI is responsible to SADC in terms of achieving the regional objectives as a subsidiary organisation, and through this to the WRTC and the Member States.

Cooperative relationships: built around the development of partnerships and agreements for information sharing and cooperation to assist the GMI in effecting its core mandates around information, capacity building, awareness creation and research. Institutions to be considered in this regard include IAH, ICRAC, UNESCO, GWP, WaterNet, WARFSA, and regionally based academic and research institutions. Important cooperative relationships will also need to be developed with the AMCOW Groundwater Commission and the SADC Disaster Management Centre (DMC). These relationships are developed by the Director and Technical Specialist.

Client/Service relationships: revolve around the provision of information, training, awareness and/or services to organisations responsible for or involved in groundwater management within the Member States or at a transboundary level. These relationships are developed by the by the Director and Technical Specialist. They are instrumental for entrenching a common vision and objective towards groundwater management origination at transboundary basin level, cascading through to national level. This requires the utilization of existing institutions such as RBO's at basin level and working through their technical committees. SADC-GMI is actively working with ORASECOM through the Groundwater Hydrology Committee. At Member state level client/ service relationships with the Ministries of Water working through their strategic and technical directorates.

Contractual relationships: the most important of these relationships is the agreements between SADC-GMI, UFS, IGS and SADC around the nature and conditions of the hosting of the SADC-GMI. There may also need to be contractual arrangements between GMI and cooperating partners where funds are directly provided (rather than through SADC) for programme or research purposes. The SADC-GMI will develop contractual relationships with services providers once established.

4.2 SADC-GMI Governance Structures

4.2.1 Board of Directors

The Southern African Development Community Groundwater Management Institute (SADC-GMI) is established as a Section 21 not-for-profit company registered under the South African Companies Act No. 71 of 2008, as amended. The company is run by a Board of Directors composed of representatives from the SADC Member States, University of the Free State, an Executive Director and SADC Secretariat's Water Division as the Chair. It is hosted by the University of the Free State's Institute for Groundwater Studies in Bloemfontein, South Africa. The SADC-GMI CEO is accountable to the Board of

Directors. There were 3 registered Board Members for SADC-GMI in September 2016. To date, four additional non-Executive Board Members have been selected through the Project Steering Committee from Namibia, South Africa, Swaziland and the University of the Free State. The names of these four, together with the Executive Director have been lodged with the CIPC for formal registration as Board Members. The Executive Director of the SADC-GMI is an ex-officio member of the Board. On a quarterly basis, the SADC-GMI Board meets and reviews the progress on the implementation of the project

4.2.2 Project Steering Committee, SADC Secretariat and Member States

The SADC-GMI is also governed by the Project Steering Committee through the agreed Terms of Reference (ToR). The same ToR applies for the SADC Sub-committee on Hydrogeology. As per the ToR, two annual meetings need to be held, the timing of which is linked to providing inputs into the SADC Water Resources Technical Committee (WRTC). The Steering Committee is the supreme decision-making body.

4.3 SADC-GMI Structure

4.3.1 Organisational Structure

There are currently five staff members employed by the SADC-GMI. Three are permanent employees and two are employed under the GEF-CIWA project. These positions consist of:

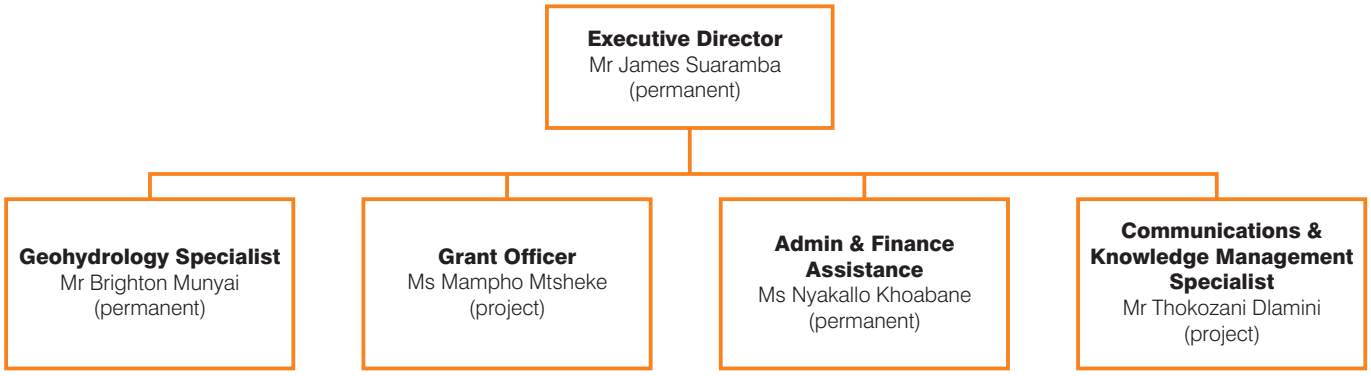

Figure 6: Organogram of SADC-GMI

4.3.2 Staffing

Limited capacity of existing staff has been highlighted as a challenge, as the growth of the organisation and its ability to deliver has been compromised. Whilst there are no plans to increase the full-time staff complement, additional resources and support will be drawn from the service providers, utilising project funds to fund their salaries, thereby minimising the core costs of the SADC-GMI. In additional, SADC-GMI is in a process to develop its internal systems, which will improve its internal efficiencies. SADC-GMI will also look at partnership/associate models and gain expertise and skills from these, until it is ready to on-board additional staff members.

4.4 Hosting Arrangements

The SADC-GMI is hosted by the Institute for Groundwater Studies at the University of the Free State under a Service Level Agreement. The UFS is the implementing entity on behalf of the SADC Secretariat and Member States of both the GEF and CIWA grants. The University also maintains fiduciary oversight especially through financial management while the SADC-GMI implements the Sustainable Groundwater Management in SADC Member States project. For the procurement of goods, works and services for operational purposes, SADC – GMI follows the procedures of the UFS in conjunction with those of the World Bank.

It should be noted that the terms of the signed agreement differs from the spirit of the proposed terms of hosting and may need to be reconsidered.

5. FINANCING SADC-GMI

5. FINANCING SADC-GMI

The financial sustainability of the SADC-GMI requires that there is a sufficiently reliable income stream to fund the activities of the business plan, so that it has a reasonable expectation of covering its running costs for the foreseeable future through a combination of donor funding, member state in-kind contributions and any other identified sources of income.

An analysis of the likely expenditure of the SADC-GMI over the next five years, based on an analysis of expenditure over the past two years, and a projection of likely staffing and activities into the future, has been conducted. Three scenarios were considered: minimum spend, base case and full capacity. A range of sources of income were considered, including donor funding, a no-cost time extension on the current funding, and revenue generation from options such as training, paid conferences, and memberships fees for a groundwater professional body.

The SADC-GMI is currently implementing a GEF-CIWA funded project. The successful implementation of this project will support the long term financial sustainability and effectiveness of the Institute, establishing the relationships for training platforms, research assignments, subscriptions and project leadership in groundwater management in the SADC region. A two year no-cost extension by the World Bank for the current GEF-CIWA facility would relieve some of the intense time pressure on this project and assist the Institute to better prepare for a sustainable future.

Based on the projected expenditure and revenue streams, a funding surplus of US$186k could arise by the close of the 2022/23 financial year under the base case scenario. Projected revenue from non-grant funding sources is expected to exceed operational costs at that stage, which will ensure financial sustainability beyond the five years projected. However, the achievement of the forecast revenues will be reliant on SADC-GMI actively developing and growing the proposed revenue streams.

This section sets out the evaluation of the probable sources and quantum of income against the projected operational cost of SADC-GMI over its next 5 financial years.

5.1 Current funding

The primary source of funding for the SADC-GMI currently is a project funded by GEF-CIWA, due to expire at the end of June 2019. The initiation of this project was delayed for several reasons, with the result that a five-year programme has been compressed into just over two years, and implementation is considerably behind schedule. Of this funding, 26% of the Component A budget and less than 2% of the B, C and D components' budgets had been spent as at 25 January 2018. There is a possibility of a two year no-cost extension of this funding, which would enable the SADC-GMI to spend the funding more effectively over a longer period of time.

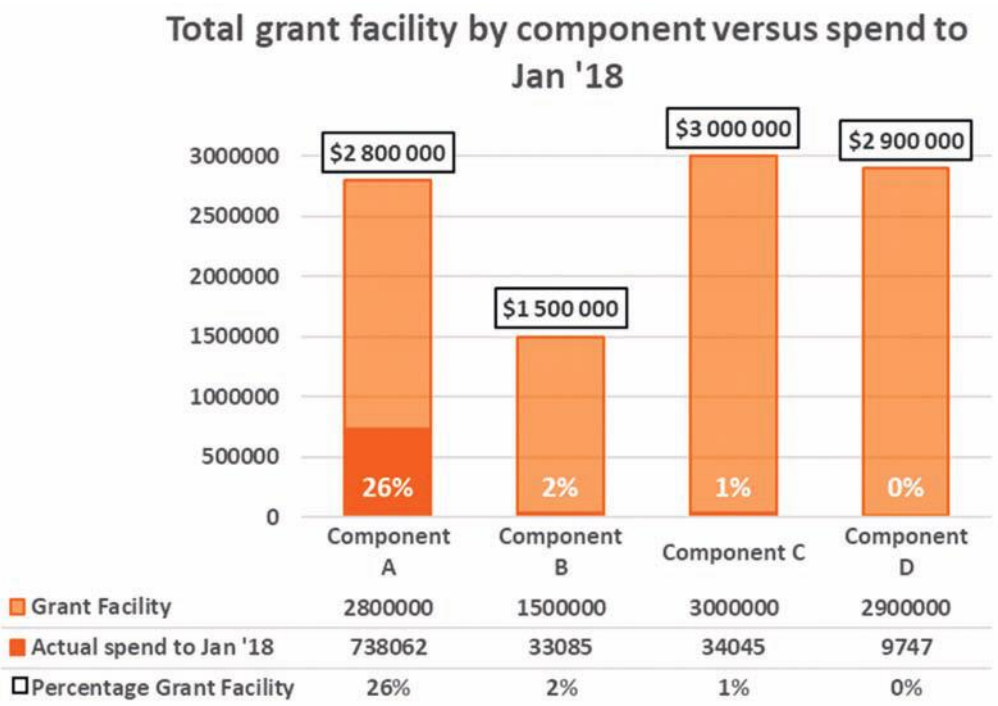

Figure 7: Total grant facility by component versus spend to January 2018

Since these results, the SADC-GMI has secured 3 additional projects to fulfil the GEF-CIWA mandate, within its specified timeframe, however, **a 2 year no-cost extension by the World Bank for the current GEF-CIWA facility would relieve some of the intense time pressure** on this project and assist the SADC-GMI to better prepare for a sustainable future. Such an extension will allow SADC-GMI to deploy the full budget allocated to Component A.

5.2 Budget

The budget needs of the SADC-GMI over the period 2018/9 – 2022/23 were analysed according to a division between core costs and project-related costs, and based on historical expenditure and estimated expenditure according to the activities to be conducted according to the strategic business plan.

Three scenarios were developed, one based on the minimum expenditure required to keep the SADC-GMI afloat and functioning, one based on a medium expenditure scenario, and one based on a high expenditure scenario as follows:

Table 4: Budget estimates under three scenarios

Value of projects implemented	2018/19	2019/20	2020/21	2021/22	2022/23
Low scenario	$500 000	$1 250 000	$1 500 000	$2 250 000	$2 500 000
Medium scenario	$1 500 000	$1 875 000	$2 250 000	$3 375 000	$3 750 000
High scenario	$2 000 000	$2 500 000	$3 000 000	$4 500 000	$5 000 000

The detailed budget and income under the medium scenario is captured on the following pages both with a two-year extension on the GEF-CIWA funding, and without such an extension. In terms of short term funding sources, the existing GEF-CIWA grant could fund core expenditure to 31 March 2021 provided that a two-year no-cost extension is awarded. The low and high budget scenarios, with a two-year extension of the GEF-CIWA funding are attached as Appendix A.

Table 5: Projected budget and income over 5 years (USD and Rands) under a medium expenditure forecast without 2-year extension of GEF-CIWA funding

SADC - GMI

Budgetary Projections

		US$	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	R	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Value of projects implemented			-	1 500 000	1 875 000	2 250 000	3 375 000	3 750 000		-	19 500 000	24 375 000	29 250 000	43 875 000	48 750 000
Recharged costs as % of project value				0,0%	0,0%	0,0%	0,0%	0,0%			0,0%	0,0%	0,0%	0,0%	0,0%
Operational Costs:	Category														
Auditors remuneration	Core		12 499	5 000	5 075	5 151	5 228	5 307		162 492	65 000	65 975	66 965	67 969	68 989
Accommodation and allowances	Core		16 206	50 000	50 750	51 511	52 284	53 068		210 683	650 000	659 750	669 646	679 691	689 886
Advertisements	Core		3 259	15 000	15 225	15 453	15 685	15 920		42 361	195 000	197 925	200 894	203 907	206 966
Computer equipment	Core		3 942	6 500	6 598	6 696	6 797	6 899		51 244	84 500	85 768	87 054	88 360	89 685
Consultation fees	Core		75 459	40 000	40 600	41 209	41 827	42 455		980 968	520 000	527 800	535 717	543 753	551 909
Employee costs - executive	Core		-	120 000	121 800	123 627	125 481	127 364		-	1 560 000	1 583 400	1 607 151	1 631 258	1 655 727
Employee costs - administrative	Core		53 992	180 000	182 700	185 441	188 222	191 045		701 896	2 340 000	2 375 100	2 410 727	2 446 887	2 483 591
Entertainment and refreshments	Core		7 093	3 500	3 553	3 606	3 660	3 715		92 210	45 500	46 183	46 875	47 578	48 292
Office alternations	Core		1 458	2 500	2 538	2 576	2 614	2 653		18 950	32 500	32 988	33 482	33 985	34 494
Printing and stationery	Core		511	12 500	12 688	12 878	13 071	13 267		6 648	162 500	164 938	167 412	169 923	172 472
Professional services - UFS	Core		101 400	135 000	137 025	139 080	72 152	73 234		1 318 200	1 755 000	1 781 325	1 808 045	937 974	952 043
Small equipment	Core		611	2 500	2 538	2 576	2 614	2 653		7 937	32 500	32 988	33 482	33 985	34 494
Souvenirs and gifts	Core		-	500	508	515	523	531		-	6 500	6 598	6 696	6 797	6 899
Telephone and fax	Core		116	2 500	2 538	2 576	2 614	2 653		1 505	32 500	32 988	33 482	33 985	34 494
Training costs	Core		17 949	2 500	2 538	2 576	2 614	2 653		233 333	32 500	32 988	33 482	33 985	34 494
Travel costs (flight and car hire)	Core		43 301	100 000	101 500	103 023	104 568	106 136		562 913	1 300 000	1 319 500	1 339 293	1 359 382	1 379 773
Auditors remuneration	Project			-	-	-	-	-		-	-	-	-	-	-
Accommodation and allowances	Project			-	-	-	-	-		-	-	-	-	-	-
Advertisements	Project			-	-	-	-	-		-	-	-	-	-	-
Computer equipment	Project			-	-	-	-	-		-	-	-	-	-	-
Consultation fees	Project			-	-	-	-	-		-	-	-	-	-	-
Employee costs - executive	Project			-	-	-	-	-		-	-	-	-	-	-
Employee costs - administrative	Project			-	-	-	-	-		-	-	-	-	-	-
Entertainment and refreshments	Project			-	-	-	-	-		-	-	-	-	-	-
Office alternations	Project			-	-	-	-	-		-	-	-	-	-	-
Printing and stationery	Project			-	-	-	-	-		-	-	-	-	-	-
Professional services - UFS	Project			-	-	-	-	-		-	-	-	-	-	-
Small equipment	Project			-	-	-	-	-		-	-	-	-	-	-
Souvenirs and gifts	Project			-	-	-	-	-		-	-	-	-	-	-
Telephone and fax	Project			-	-	-	-	-		-	-	-	-	-	-
Training costs	Project			-	-	-	-	-		-	-	-	-	-	-
Travel costs (flight and car hire)	Project			-	-	-	-	-		-	-	-	-	-	-
Total Operating expenditure			**337 796**	**678 000**	**688 170**	**698 493**	**639 955**	**649 554**		**4 391 342**	**8 814 000**	**8 946 210**	**9 080 403**	**8 319 417**	**8 444 208**
Total Operating expenditure - core			*337 796*	*678 000*	*688 170*	*698 493*	*639 955*	*649 554*		*4 391 342*	*8 814 000*	*8 946 210*	*9 080 403*	*8 319 417*	*8 444 208*
Total Operating expenditure - project			-	-	-	-	-	-		-	-	-	-	-	-
Income:															
Grant Income - WB/CIWA			337 796	678 000						4 391 342	8 814 000	-	-	-	-
Grant Income - Climate Change (DBSA)				-	-	-	-	-		-	-	-	-	-	-
Member state contributions			-	-	-	-	-	-		-	-	-	-	-	-
Other income			-	-	-	-	-	-		-	-	-	-	-	-
Facilitation / Implementation fees			-	-	-	-	-	-		-	-	-	-	-	-
In-kind contributions from the host (UFS)			-	-	-	-	-	-		-	-	-	-	-	-
In-kind member state contributions				-	-	-	-	-		-	-	-	-	-	-
Training / Course surplus income			-	-	-	-	-	-		-	-	-	-	-	-
Surplus / (unfunded deficit) carried forward				-	-	**(688 170)**	**(1 386 663)**	**(2 026 618)**		-	-	-	**(8 946 210)**	**(18 026 613)**	**(26 346 030)**
Further contributions required - funding gap			-	-	688 170	1 386 663	2 026 618	2 676 172		-	-	8 946 210	18 026 613	26 346 030	34 790 239
Cumulative Surplus / (unfunded deficit)			-	-	(688 170)	(1 386 663)	(2 026 618)	(2 676 172)		-	-	(8 946 210)	(18 026 613)	(26 346 030)	(34 790 239)
Summary															
Total Income			$ 337 796	$ 678 000	$ -	$ -	$ -	$ -		R 4 391 342	R 8 814 000	R -	R -	R -	R -
Total Expenditure - Core			$ 337 796	$ 678 000	$ 688 170	$ 698 493	$ 639 955	$ 649 554		R 4 391 342					
WB Grant: Component A - unused closing balance			$ 1 724 142	$ 1 046 142	$ 1 046 142	$ 1 046 142	$ -	$ -		R 22 413 852	R 13 599 852	R 13 599 852	R 13 599 852	R -	R -

Table 6: Projected budget and income over 5 years (USD and Rands) under a medium expenditure forecast with 2-year extension of GEF-CIWA funding

		US$						R					
		2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Value of projects implemented		-	1 500 000	1 875 000	2 250 000	3 375 000	3 750 000	-	19 500 000	24 375 000	29 250 000	43 875 000	48 750 000
Recharged costs as % of project value			4,5%	7,3%	7,7%	7,5%	8,6%		4,5%	7,3%	7,7%	7,5%	8,6%
Operational Costs:	Category												
Auditors remuneration	Core	12 499	5 000	5 075	5 151	5 228	5 307	162 492	65 000	65 975	66 965	67 969	68 989
Accommodation and allowances	Core	16 206	45 000	40 600	38 633	31 370	26 534	210 683	585 000	527 800	502 235	407 815	344 943
Advertisements	Core	3 259	13 500	12 180	11 590	9 411	7 960	42 361	175 500	158 340	150 670	122 344	103 483
Computer equipment	Core	3 942	5 850	5 278	5 022	4 078	3 449	51 244	76 050	68 614	65 291	53 016	44 843
Consultation fees	Core	75 459	36 000	32 480	30 907	25 096	21 227	980 968	468 000	422 240	401 788	326 252	275 955
Employee costs - executive	Core	-	108 000	97 440	92 720	75 289	63 682	-	1 404 000	1 266 720	1 205 363	978 755	827 864
Employee costs - administrative	Core	53 992	162 000	146 160	139 080	112 933	95 523	701 896	2 106 000	1 900 080	1 808 045	1 468 132	1 241 795
Entertainment and refreshments	Core	7 093	3 150	2 842	2 704	2 196	1 857	92 210	40 950	36 946	35 156	28 547	24 146
Office alternations	Core	1 458	2 250	2 030	1 932	1 569	1 327	18 950	29 250	26 390	25 112	20 391	17 247
Printing and stationery	Core	511	11 250	10 150	9 658	7 843	6 634	6 648	146 250	131 950	125 559	101 954	86 236
Professional services - UFS	Core	101 400	121 500	109 620	104 310	43 291	36 617	1 318 200	1 579 500	1 425 060	1 356 034	562 784	476 022
Small equipment	Core	611	2 250	2 030	1 932	1 569	1 327	7 937	29 250	26 390	25 112	20 391	17 247
Souvenirs and gifts	Core	-	450	406	386	314	265	-	5 850	5 278	5 022	4 078	3 449
Telephone and fax	Core	116	2 250	2 030	1 932	1 569	1 327	1 505	29 250	26 390	25 112	20 391	17 247
Training costs	Core	17 949	2 250	2 030	1 932	1 569	1 327	233 333	29 250	26 390	25 112	20 391	17 247
Travel costs (flight and car hire)	Core	43 301	90 000	81 200	77 267	62 741	53 068	562 913	1 170 000	1 055 600	1 004 469	815 629	689 886
Auditors remuneration	Project		-	-	-	-	-	-	-	-	-	-	-
Accommodation and allowances	Project		5 000	10 150	12 878	20 914	26 534	-	65 000	131 950	167 412	271 876	344 943
Advertisements	Project		1 500	3 045	3 863	6 274	7 960	-	19 500	39 585	50 223	81 563	103 483
Computer equipment	Project		650	1 320	1 674	2 719	3 449	-	8 450	17 154	21 764	35 344	44 843
Consultation fees	Project		4 000	8 120	10 302	16 731	21 227	-	52 000	105 560	133 929	217 501	275 955
Employee costs - executive	Project		12 000	24 360	30 907	50 193	63 682	-	156 000	316 680	401 788	652 503	827 864
Employee costs - administrative	Project		18 000	36 540	46 360	75 289	95 523	-	234 000	475 020	602 682	978 755	1 241 795
Entertainment and refreshments	Project		350	711	901	1 464	1 857	-	4 550	9 236	11 719	19 031	24 146
Office alternations	Project		250	508	644	1 046	1 327	-	3 250	6 598	8 371	13 594	17 247
Printing and stationery	Project		1 250	2 538	3 219	5 228	6 634	-	16 250	32 988	41 853	67 969	86 236
Professional services - UFS	Project		13 500	27 405	34 770	28 861	36 617	-	175 500	356 265	452 011	375 189	476 022
Small equipment	Project		250	508	644	1 046	1 327	-	3 250	6 598	8 371	13 594	17 247
Souvenirs and gifts	Project		50	102	129	209	265	-	650	1 320	1 674	2 719	3 449
Telephone and fax	Project		250	508	644	1 046	1 327	-	3 250	6 598	8 371	13 594	17 247
Training costs	Project		250	508	644	1 046	1 327	-	3 250	6 598	8 371	13 594	17 247
Travel costs (flight and car hire)	Project		10 000	20 300	25 756	41 827	53 068	-	130 000	263 900	334 823	543 753	689 886
Total Operating expenditure		**337 796**	**678 000**	**688 170**	**698 493**	**639 955**	**649 554**	**4 391 342**	**8 814 000**	**8 946 210**	**9 080 403**	**8 319 417**	**8 444 208**
Total Operating expenditure - core		*337 796*	*610 700*	*551 551*	*525 157*	*386 064*	*327 431*	*4 391 342*	*7 939 100*	*7 170 163*	*6 827 044*	*5 018 838*	*4 256 599*
Total Operating expenditure - project		-	*67 300*	*136 619*	*173 335*	*253 891*	*322 124*	-	*874 900*	*1 776 047*	*2 253 360*	*3 300 579*	*4 187 610*
Income:													
Grant Income - WB/CIWA		337 796	610 700	551 551	525 157			4 391 342	7 939 100	7 170 163	6 827 044	-	-
Grant Income - Climate Change (DBSA)			-	-	-	-	-		-	-	-	-	-
Member state contributions		-	-	-	-	-	-	-	-	-	-	-	-
Other income		-	-	50 000	85 000	130 000	180 000	-	-	650 000	1 105 000	1 690 000	2 340 000
Facilitation / Implementation fees		-	67 300	136 619	173 335	253 891	322 124	-	874 900	1 776 047	2 253 360	3 300 579	4 187 610
In-kind contributions from the host (UFS)		-	-	-	-	-	-	-	-	-	-	-	-
In-kind member state contributions			6 000	6 000	29 180	53 056	101 523	-	78 000	78 000	379 341	689 722	1 319 795
Training / Course surplus income		-	28 645	44 230	60 275	62 450	63 387	-	372 390	574 985	783 573	811 852	824 030
Surplus / (unfunded deficit) carried forward			-	**34 645**	**134 875**	**309 330**	**168 771**	-	-	**450 390**	**1 753 375**	**4 021 289**	**2 194 024**
Further contributions required - funding gap		-	-	-	-	-	-	-	-	-	-	-	-
Summary													
Total Income		$ 337 796	$ 712 645	$ 788 400	$ 872 947	$ 499 396	$ 667 033	R 4 391 342	R 9 264 390	R 10 249 195	R 11 348 317	R 6 492 153	R 8 671 435
Total Expenditure - Core		$ 337 796	$ 610 700	$ 551 551	$ 525 157	$ 386 064	$ 327 431	R 4 391 342					
WB Grant: Component A - unused closing balance		$ 1 724 142	$ 1 113 442	$ 561 891	$ 36 734	$ -	$ -	R 22 413 852	R 14 474 752	R 7 304 589	R 477 545	R -	R -

A summary of income and expenditure projections under the three scenarios, with a two-year extension of the GEF-CIWA funding are contained in the tables below.

Table7: Summary of projected income and expenditure under the minimum spend scenario

Minimum spend + low project budget	2018/19	2019/20	2020/21	2021/22	2022/23
Total income	$626 645	$701 110	$779 712	$399 848	$547 418
Total operating expenditure	$(592 000)	$(600 880)	$(609 893)	$(550 027)	$(558 277)
Surplus/(deficit) for the year	**$34 645**	**$100 230**	**$169 819**	**$(150 179)**	**$(10 859)**
Surplus - beginning of year	-	$34 645	$134 875	$304 694	$154 515
Surplus - end of year	**$34 645**	**$134 875**	**$304 694**	**$154 515**	**$143 655**

Table 8: Summary of projected income and expenditure under the base case scenario

Base case spend + medium project	2018/19	2019/20	2020/21	2021/22	2022/23
Total income	$712 645	$788 400	$872 947	$499 396	$667 033
Total operating expenditure	$(678 000)	$(688 170)	$(698 493)	$(639 955)	$(649 554)
Surplus/(deficit) for the year	**$34 645**	**$100 230**	**$174 455**	**$(140 559)**	**$17 479**
Surplus - beginning of year	-	$34 645	$134 875	$309 330	$168 771
Surplus - end of year	**$34 645**	**$134 875**	**$309 330**	**$168 771**	**$186 250**

Table 9: Summary of projected income and expenditure under the high spend scenario

Full capacity spend + high project budget	2018/19	2019/20	2020/21	2021/22	2022/23
Total income	$798 645	$875 690	$966 183	$580 306	$767 677
Total operating expenditure	$(764 000)	$(775 460)	$(787 092)	$(729 884)	$(740 832)
Surplus/(deficit) for the year	**$34 645**	**$100 230**	**$179 091**	**$(149 578)**	**$26 846**
Surplus - beginning of year	-	$34 645	$134 875	$313 966	$164 388
Surplus - end of year	**$34 645**	**$134 875**	**$313 966**	**$164 388**	**$191 234**

5.3 Funding Landscape for SADC-GMI

Diversification of the SADC-GMI's funding sources/income streams is critical to its financial sustainability, not only in terms of donor/partner funding, but also through other income generating initiatives. There are a number of options available to SADC-GMI to fund its core activities over the medium to long-term through various streams that incorporate fees collection for service offerings, donations and in-kind contributions, strengthening existing partnerships and establishing new ones, accessing additional grants and tapping into global funding and through publications (figure below). These are elaborated on below.

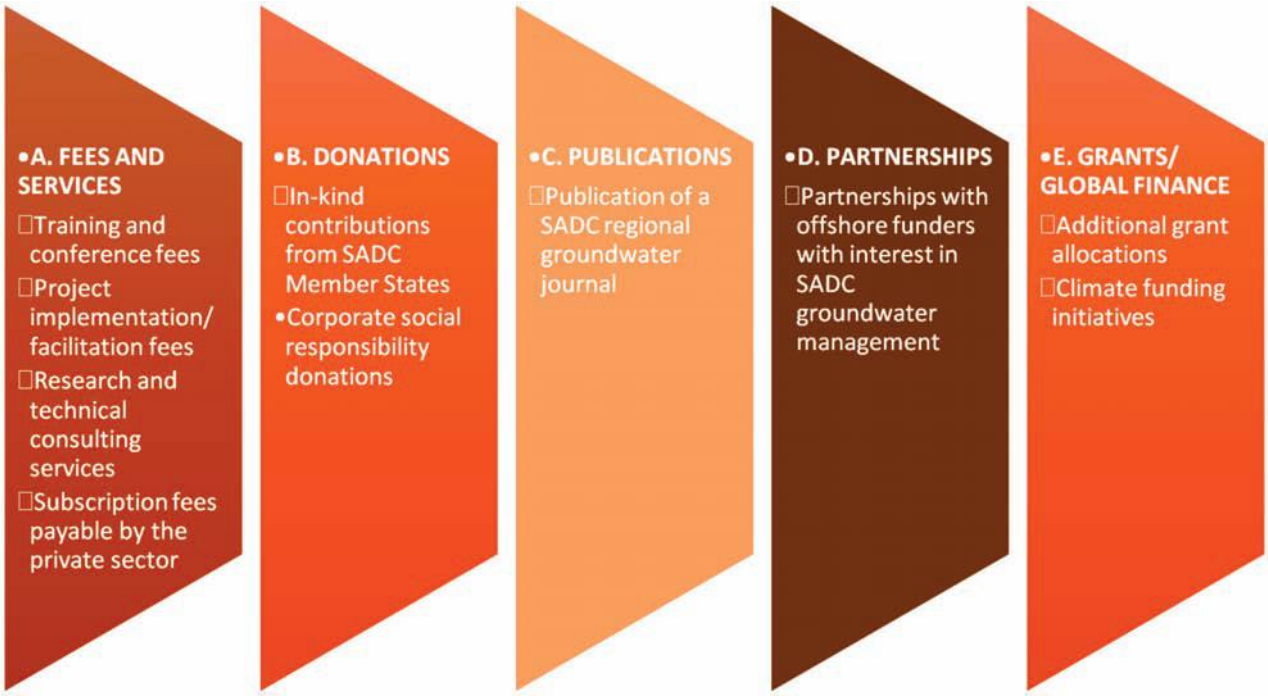

Figure 8: Options available for income diversification

These are elaborated on below:

5.3.1 Fees and Services

Training and conference income

A number of opportunities exist for the Institute to generate income from training/conferences over the next 5 years, namely:

SADC-GMI is planning an annual SADC Groundwater Conference to be held initially in 2018, in partnership with key stakeholders. It is envisaged that up to 350 delegates across the SADC region will attend this event who will be charged US$400 each. The Institute is in negotiations with WaterNet to hold regional training events on topics relating to cost effective borehole drilling. These training events are expected to attract 25-30 attendees, with 10 attendees usually sponsored. Training fees are expected to be US$350 per attendee.

Whilst Component C of the current GEF-CIWA programme sets aside US$3m for advancing knowledge on transboundary and national groundwater, GIZ has awarded SADC-GMI a further €198,085 to present 4 courses across the SADC region between May 2018 and December 2018. This funding will enable SADC-GMI to build up a training track record in the region.

For the purposes of this financial sustainability evaluation, a conservative bottom up costing exercise was undertaken to forecast both the training/conferencing revenues and costs over the next 5 years, based on between 2 and 8 training events per annum and 1 annual conference. The net annual revenue, i.e. after adjusting training and conference fees for associated costs, that SADC-GMI could potentially earn in each year is set out below.

Table 10: Potential income from training and conferences

	2018/19	2019/20	2020/21	2021/22	2022/23
Net annual estimated revenue	$28 645	$44 230	$60 275	$62 450	$63 387
Number of training events	2	4	6	8	8
Number of conferences	1	1	1	1	1

Project implementation/facilitation fees

It is recommended that SADC-GMI seeks to recover some of its operational or core costs via facilitation/implementation fees from project funders, but that these fees do not exceed more than 10% of project costs. Donors may be receptive to these recharges provided that SADC-GMI can substantiate the cost allocations and that funders believe that the Institute adds value as facilitator or implementer.

The Institute is currently in negotiations with the DBSA around a new 5-year project aligned to its current objectives, under the auspices of the DBSA's climate change mandate and the Green Climate Fund. If successful, this US$20m project would unlock US$3.75m (or US$750k per annum) of funding for the Institute's core activities as well as a 5% annual project implementation fee.

The DBSA climate funding opportunity was not included in the financial sustainability forecasts as the opportunity was considered to be too early stage to include. However, should this opportunity materialise, the Institute will benefit from significant surpluses over the next 5 years.

Instead, the financial sustainability assessment allocated percentages, of the Institute's operational spend, that could be recharged to projects via a facilitation/implementation fee in respect of new project budgets and subject to these recharges being agreed with funders.

Table 11: Potential income from project implementation fees

Project scenario	2018/19	2019/20	2020/21	2021/22	2022/23
Low scenario	8%	15%	20%	30%	40%
Medium scenario	10%	20%	25%	40%	50%
High scenario	20%	30%	35%	45%	55%

Research and technical consulting services

The strategic position that SADC-GMI fulfils allows the Institute to offer a number of consulting services, aside from those that arise directly through project grants, namely:

Collaboration with academic institutions, such the UFS, to jointly apply for academic research bursaries whereby SADC-GMI can provide access to technical expertise and source data in the SADC region.

An opportunity exists for SADC-GMI to conduct in-depth research on behalf of a private sector consortium, due to the variety of private sector industries that are directly influenced by groundwater matters. Current pressing issues such as fracking would allow the Institute a particular niche position to assist the private sector (and even national governments) in understanding the full consequences of these initiatives and how they may impact them.

The Institute's access to specialist groundwater information and experience further allows SADC-GMI to offer technical consulting services to a variety of industries in the SADC region, especially in the agriculture, mining and energy sectors.

The financial sustainability assessment's forecast includes US$30k of revenue per annum, net of costs, in respect of technical consulting services as management believes that it can undertake five of these assignments per year.

Demand and topical matters are expected to drive the annual impact of this potential revenue stream considerably, but it is recommended that SADC-GMI is appropriately geared to offer these services on a continuous basis to expand its credibility.

Subscription fees

It is envisaged that as SADC-GMI becomes more established and acts as industry representative at all SADC forums, that it will establish an association for groundwater practitioners in the SADC region. This initiative will offer practitioners from all over the SADC region an opportunity to be accredited by the Institute in exchange for an annual subscription fee.

Whilst the annual subscription for groundwater practitioners would be aimed at private individuals, an opportunity also exists for private enterprises to also affiliate with the Institute. This service will be offered to companies that operate in the broader groundwater sector and would benefit from accreditation from a regional institute such as SADC-GMI, enhancing their own credibility and giving them access to the latest research, trends and news in groundwater matters.

For the purposes of this financial sustainability, subscription revenue was recognised based on the following assumptions:

Table 12: Potential income from subscription fees

Assumptions	Annual fees	2018/19	2019/20	2020/21	2021/22	2022/23
Professional membership	US$250	-	20 members	100 members	160 members	240 members
Private sector subscription	US$500	-	30 subscriptions	60 subscriptions	120 subscriptions	180 subscriptions

Subscription income	2018/19	2019/20	2020/21	2021/22	2022/23
Professional membership	$-	$5 000	$25 000	$40 000	$60 000
Private sector subscription	$-	$15 000	$30 000	$60 000	$90 000

5.3.2 Donations

In-kind contributions from SADC member states

Donors often expect that contributions from Member States will fund a significant portion of core costs and that these contributions will meet their co-funding targets when committing project funding. However, recent examples in the SADC region suggest that Member States are often reluctant to make the actual contributions which jeopardises the financial sustainability of the organisation if it is reliant on these contributions.

Management is of the view that SADC-GMI's Member States will be willing to make in-kind contributions in respect of venues and their own travel costs, but that the Member States will not be in a position to fund the Institute's core costs.

For the purposes of our financial sustainability evaluation, the following conservative estimates of in-kind contributions from SADC Member States have been made, namely that:

Each Member State will make in-kind contributions of US$1,500 per annum in respect of venues and other ad hoc costs which would result in US$24,000 of funding per annum. However, in light of the uncertainty attached to these contributions, a 25% probability was applied to the income source, reducing the forecast funding to US$6,000 per annum.

Each Member State will progressively settle a greater portion of its regional representatives' travel costs for attending the SADC-GMI board and steering committee meetings once the current GEF-CIWA grant window closes. These costs are currently borne by the Institute and funded by GEF-CIWA.

Table 13: Potential income donations

Member state contributions	2018/19	2019/20	2020/21	2021/22	2022/23
In-kind contributions (venues and other ad-hoc costs), after applying 25% probability	US$6,000	US$6,000	US$6,000	US$6,000	US$6,000
% of travel and accommodation costs to be incurred by Member States	-	-	25%	50%	100%

Corporate social responsibility funding

SADC-GMI's non-profit registration status in South Africa allows it to issue s18A donation tax certificates to South African entities and individuals seeking suitable institutions for their CSR budgets. This opportunity is likely to grow in line with the Institute's reputation.

5.3.3 Publications

Publication of a SADC Groundwater Journal

SADC-GMI is currently considering the establishment of a regional groundwater journal that will be made available in both printed and digital form. This publication will focus on the SADC region and will publish academic research as well as industry news and developments.

Design and editorial assistance is likely to come from the Institute's host (UFS), with content being contributed by higher education institutions in the SADC region and affiliated private sector enterprises.

At the time of this financial sustainability evaluation, revenue and costs associated with the publication were not available and have therefore not been included in the forecasts. However, it is expected that advertising revenue will cover the publication's costs.

5.3.4 Partnerships

An opportunity exists for SADC-GMI to cooperate with programmes such as CRIDF II, a DFID funded programme, to act as implementation agent for groundwater projects that they will be funding in the SADC region. It is recommended that this opportunity is explored with the CRIDFII team as a matter of urgency

5.3.5 Grants/International Donor Funding

There is considerable potential for the SADC-GMI to access international donor funding for projects. Several important donors are active in the groundwater field in the SADC region, such as GIZ, DFID, and the World Bank. SADC-GMI have already received some support from these sources, and there is ongoing potential for sourcing funding from them. A table to international donors, ranked by relevance and rating, is attached in Appendix B.

Two important sources of potential funding are addressed below.

- **The Green Climate Fund (GCF)**

The GCF is an international fund for disbursing grants and concessional finance for low emission climate resilient development. It aims to achieve a balance of disbursements between adaptation and mitigation (50% each) and has a sustained focus on least developing countries, small island states and African countries.

SADC-GMI is currently working with the Development Bank of Southern Africa (DBSA), who is an accredited entity of the GCF, to apply for US$20 million of project funding. This opportunity could unlock US$3.75m (or US$750k per annum) of funding for the Institute's core activities as well as a 5% annual project implementation fee.

GCF applications require a significant amount of commitment from both the implementing agent and the accredited entity as a funding application need to be supported by a detailed business case or feasibility study that clearly demonstrates the forecast benefit of the project. The application will also need to include a measurement and verification approach that will be implemented once the funding is made available to report on the project's outcomes.

- **The Global Environment Fund (GEF)**

The GEF provided SADC-GMI with US$2.07 million of its current Category A funding to operationalise the Institute (as part of the larger US$10.2 million GEF-CIWA funding window).

Future funding from the GEF is likely to be for projects rather than the operationalisation of the Institute and is likely to attract limited to no project management/facilitation fees. The Institute will therefore need to include relevant operational costs for inclusion in the project budget submitted to GEF.

5.3.6 Materiality of funding sources (base case)

This document highlights a number of potential revenue sources that SADC-GMI could utilise to fund its core activity expenditure and the table below illustrates the estimated quantum and timing of the forecast revenue under the base case spend scenario.

The financial plan assumes that the white blocks above (Projects, Training, Services and Scholarships) are all able to generate their own revenue. Moreover, they are expected to generate surpluses which contribute to the core costs of the Institute.

The Institute's financial sustainability will be dependent on: its ability to grow its project funding portfolio and to negotiate facilitation/ implementation fees with project funders to recover a significant portion of its operational costs; grow its in-kind contributions from Member States; and grow its other service/membership fees.

Table 14: Summary of income from other sources

Sources of revenue	2018/19	2019/20	2020/21	2021/22	2022/23
Grant income (GEF/CIWA)	610,700	551,551	525,157	-	-
Facilitation fees	67,300	136,619	173,335	253,891	322,124
Training/ conferences income	28,645	44,230	60,275	62,450	63,387
Professional membership fees	-	5,000	25,000	40,000	60,000
Private sector subscription	-	15,000	30,000	60,000	90,000
Technical consulting and research services	-	30,000	30,000	30,000	30,000
In-kind member state contributions	6,000	6,000	29,180	53,056	101,523
Total revenue	**712,645**	**788,400**	**872,947**	**499,397**	**667,034**

5.4 Expenditure Reporting

The SADC-GMI has two types of expenditure reporting: project level reporting to specific funders, and overall reporting of expenditure against the approved budget to the Board. Reporting is done on a quarterly basis to the Board. The Board is responsible for approving the annual financial statements as well as the budget.

5.5 Audit requirements

The annual financial statements of the SADC-GMI are audited by an independent external auditor and are submitted to the Board for approval, in compliance with the Companies Act.

6. RISK ANALYSIS AND MITIGATION

6. RISK ANALYSIS AND MITIGATION

Risk management is a critical part of good governance of any institution. It requires the regular identification of risks facing the organization, both internal and external, consideration of the mitigatory measures in place to manage the risk, and consideration of whether further actions are required to manage the risk further. The SADC-GMI conducted a risk assessment using a risk matrix which enables the identification of risks facing the organization; rating of the impact and likelihood of the risk, and assessment of mitigation or control actions that are in place.

On the basis of an algorithm, the risk assessment matrix (Figure 9) ascribes a value to the residual risk – i.e. the level of risk remaining with existing mitigatory or control measures in place. This enables the identification of the key risks facing the organization and the need for additional control measures to be put in place to reduce the potential impact of the risks. Responsibilities and timeframes are then accorded for each control measure to be put in place.

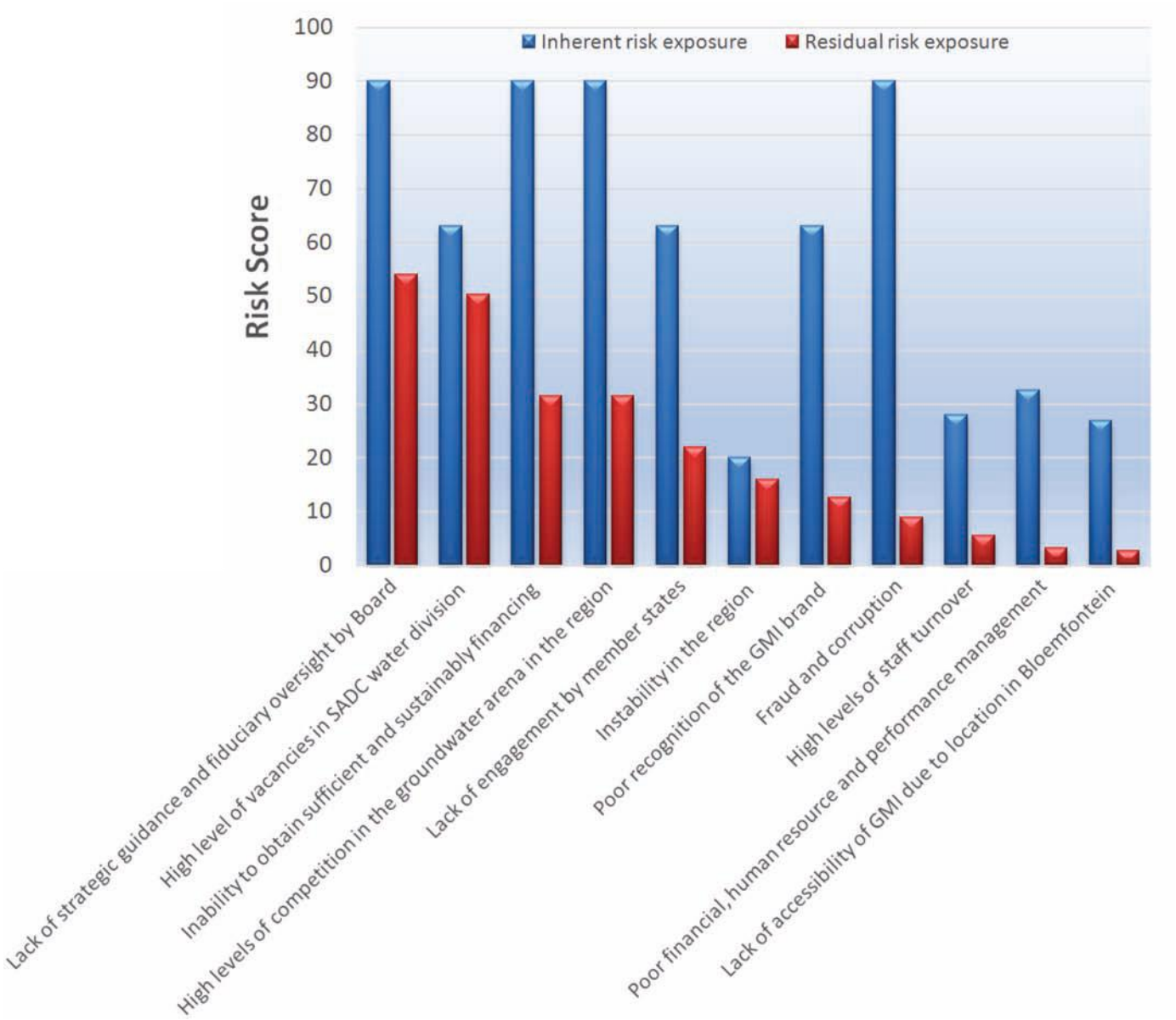

Figure 9: Risk assessment graph showing inherent and residual risk

This risk matrix must be updated annually with input from the SADC-GMI staff and Board and implementation of the required control measures must be monitored on an on-going basis. In applying the above methodology, a first risk assessment was conducted for the SADC-GMI, the results of which are discussed below.

Figure 9 shows the key risks identified for the SADC-GMI. The red columns indicate the severity of the risk rating if no control measures are in place, i.e. the inherent risk. This is a factor of the likelihood of occurrence and the nature of the impact on the organization if it should occur. The blue columns indicate the residual risk, i.e. the severity of the risk rating with current control or mitigation mechanisms in place. The graph clearly indicates the substantial reduction in the risk ratings due to good control measures being in place.

The risks, in order of priority according to the level of residual risk, are discussed below.

- **Lack of strategic guidance and fiduciary oversight by the Board**

The most significant residual risk pertains to the potential for the lack of strategic guidance and fiduciary oversight by the Board. There are several aspects to this. Firstly, in terms of a new organization which needs to raise its profile and build its financial sustainability and its ability to deliver, the strategic leadership role of the Board is extremely important.

One of the challenges, however, is that most of the current Board appointments are based on Member State representation, and not on skill-sets required as a Board appointee. This creates two challenges. Firstly, it creates a Board that does not necessarily have the right skills and capability to carry out its strategic mandate. Secondly, turnover in Member State departments may mean high levels of change in membership of the Board, resulting in lack of continuity in membership.

- **High level of vacancies in the SADC Water Division**

The SADC-GMI Board is chaired by the head of the SADC Water Division. Currently, the head of the Water Division is on a six-month contract extension which is due to expire in November 2018. The contracts of the other two technical members of the Water Division have recently expired, leaving the Water Division severely under-staffed. Should recruitment processes currently underway not deliver on replacement staff in an appropriate timeframe, it is possible that the SADC-GMI may, for a period of time at least, not have a Board Chair. There is no Deputy Chair position, and if the Board Chair is not available, Board meetings are chaired by one of the members appointed by the Board at the relevant meeting. This is not an ideal position, since the Board Chair should be playing a strategic guiding and promotion role for the organisation, not just chairing meetings. The residual risk on this item remains high because it is beyond the control of the SADC-GMI to change the situation. The one mitigatory measure that was identified was for the Executive Director of the SAD-GMI to engage with the Director: Infrastructure and Services to ensure her support for the organisation and her support in the process of achieving subsidiarity status in lieu of the presence of a Board Chair.

- **Inability to obtain sufficient and sustainable funding**

The financial risk to the sustainability of SADC-GMI derives from a current over-dependence not only on donor funding, but on funds from one donor in particular. This lack of diversity in income results in significant vulnerability for the organization. The funding stream is project related and is not sustainable.

The SADC-GMI has not yet been officially recognized as a subsidiary of SADC. Such recognition will make it easier for SADC-GMI, which limits the grant funding that are available in the donor space. However, there is also weak capacity in member states to contribute additional funds to the SADC-GMI.

The development of a Financial Sustainability Plan (FSP) for the SADC-GMI is a critical part of managing this risk, but implementation of the FSP will require significant activity on the part of the SADC-GMI staff, particularly in terms of achieving the full diversification of income streams set out in the FSP.

High levels of competition in the groundwater arena
The SADC-GMI is competing with several other national and international organisations that offer groundwater management services. This plays out

not only as competition for scarce financial resources, but also as competition for human resources and for brand recognition. This latter element is dealt with under a separate risk heading.
Lack of engagement by Member States

The engagement of the Member States in the SADC-GMI is very important in a number of ways. Firstly, several of the Board members represent Member States. The SADC-GMI is also intended to serve Member States and to build their capacity to manage their groundwater resources effectively. If Member States do not engage actively with the SADC-GMI it will be difficult to it to carry out its mandate. In order to mitigate this, it will be important for the SADC-GMI to engage actively with Member States and to ensure that it responds actively to the needs of the Member States.

- **Instability in the region**

As mentioned above, the work of the SADC-GMI is directly related to its ability to work with and in the Member States. Political or other instability in any one of the Member States may make it difficult for the SADC-GMI to work in that country until such time as the instability has been addressed. There is little that the SADC-GMI can do to mitigate against such a risk.

- **Poor recognition of the GMI brand**

The SADC-GMI is in its infancy as an institution, with a limited track-record of delivery. In addition, the location of the Institute whilst beneficial due to the hosting arrangements with the University, also comes with challenges. The Institute easily identified as a separate entity to the UFS which contributes to its limited brand recognition. The lack of formalised status as a subsidiary of SADC also impacts on this.

- **Fraud and corruption**

While fraud and corruption are risks to any organization, the SADC-GMI is governed according to the procedures and requirements of the UFS which have been developed and tested over time. The control measures are therefore good in relation to issues of fraud and corruption.

- **High levels of staff turnover**

High levels of staff turnover was identified as a risk to the organization, despite the current low levels of turnover. It was also recognized that lack of financial sustainability might contribute to high levels of staff turnover, and that addressing this is important in managing staff retention.

- **Poor financial management, human resource and performance management systems**

As a relatively new organization, the SADC-GMI is at risk in terms of its financial management, human resource and performance management systems not being sufficiently stable and effective. While the UFS is currently supporting the SADC-GMI with many systems, the GMI is in the process of developing its own systems and these will need to be tested to ensure that they are effective and meet the needs of the organization.

- **Lack of access to the SADC-GMI due to its location in Bloemfontein**

The current location of the SADC-GMI office presents some challenges in terms of access to SADC and access by SADC as well as donors. Bloemfontein is somewhat off the beaten track, and requires an additional flight for donors or other potential partners visiting South Africa or who are based in Gauteng. This makes it difficult for the SADC-GMI to capitalize effectively on funding and partnership opportunities. While this presents a low risk to the viability of the Institute, an explorative study into the merits of location should be explored.

7. TOWARDS IMPLEMENTATION

7.1 Prioritisation and Scheduling

This Strategic Business Plan proposes 19 Strategic Actions to implement of the next five-year period. Prioritisation of these actions, based on the resources available to implement, is critical to the continued success of SADC-GMI. The proposed prioritization and scheduling of the actions to be undertaken by the SADC-GMI. It should be noted that the ability to implement many of these actions will be dependent on the funding and resources available.

Table 15: Schedule of Strategic Actions

STRATEGIC OBJECTIVE	STRATEGIC ACTION/ACTIVITIES	IMPLEMENTATION				
		Y1	Y2	Y3	Y4	Y5
STRATEGIC OBJECTIVE 1: Strengthen the SADC-GMI	Strategic Action 1a: Continue to strengthen institutional governance					
	▪ Formalise all governance structures and develop appropriate Terms of Reference					
	▪ Annually review the performance of governance structures.					
	▪ Review the criteria for the SADC-GMI Board of Directors					
	▪ Develop Monitoring and Evaluation Framework					
	▪ Impalement Monitoring and Evaluation Framework					
	Strategic Action 1b: Formalise SADC subsidiarity status					
	▪ Finalise approval of the SADC-GMI subsidiarity status.					
	▪ Undertake formal country hosting arrangements					
	Strategic Action 1c: On-going organisational development to achieve autonomy					
	▪ Streamline internal business processes, such as policies					
	▪ Continue the development of relevant organisational systems and infrastructure					
	▪ Develop protocols and guidelines to streamline internal coordination and administration					
	▪ Continue the improvement of Supply Chain Management and associated systems					
	▪ Review staffing requirements annually					
	▪ Review geographical location and hosting arrangements					
	▪ Review office space needs					
	Strategic Action 1d: Implement steps toward achieving financial sustainability					
	▪ Annual monitor, review and update of the business plan.					
	▪ Monitor progress with regards to the Financial Sustainability Plan					
	▪ Diversification of funding sources. This will require an on going targeted drive to secure such funding					
	Strategic Action 1e: Building the SADC-GMI Brand					
	▪ Development of a communication and engagement strategy					
	▪ Implement and monitor progress of the communication and engagement strategy					
STRATEGIC OBJECTIVE 2: Improve knowledge management for groundwater management	Strategic Action 2a: Improve shared access to data bases and information systems related to groundwater management					
	▪ Investigate methods to improve access to data and information on groundwater					
	▪ Development of protocols and standards for data sharing and use					
	Strategic Action 2b: Develop a unified calendar for groundwater management events and training for distribution					
	▪ Groundwater seminars and workshops					
	▪ Groundwater training sessions					
	▪ Identify other key strategic events and ensure inclusion of groundwater on its agenda					
	Strategic Action 2c: Plan, coordinate and host the Annual SADC Groundwater Conference					
	Strategic Action 2d: Coordination and publication of the SADC Groundwater Journal					
	Strategic Action 2e: Develop thought leadership and advocacy materials/pieces					
	▪ Production of research reports and papers					
	▪ Translating relevant project work into knowledge pieces, lessons learned					
	▪ Translating relevant research products into knowledge pieces and lessons learned					
	▪ Sharing best-practices related to groundwater management					
	▪ Guiding the SADC groundwater sector in its thinking and strategy					
	Strategic Action 2f: Knowledge transfer through dissemination and awareness raising					
	▪ Preparation and dissemination of appropriate materials to raise awareness					
	▪ The use of knowledge sharing platforms, such as the SADC GMI website					
	▪ Coordinate knowledge transfer with relevant international ground water management institutions between member states					
STRATEGIC OBJECTIVE 3: Build national and regional institutional capacity in groundwater management	Strategic Action 3a: Strengthen policy, legal and regulatory frameworks for groundwater management					
	▪ Develop coherent GWM regulatory framework for SADC					
	▪ Provide Member States with advisory services towards the strengthening of policy, legal and regulatory frameworks					
	▪ Provide advisory support in attaining alignment in governance frameworks within transboundary settings					
	Strategic Action 3b: Develop and implement a capacity building strategy and implementation plan					
	▪ Develop a capacity building strategy					
	▪ Develop a Capacity Building and Training Calendar.					
	▪ Develop and implement an Implementation plan and monitor progress against the Plan					
	▪ Develop appropriate training materials and tools					
	▪ Map out the various institutional platforms that will support the on going capacity development					
	Strategic Action 3c: Establish the SADC Professional Association of Hydrogeologists					
STRATEGIC OBJECTIVE 4: Lead national and regional coordination for groundwater management	Strategic Action 4a: Coordination with the SADC Secretariat wrt to groundwater management					
	Strategic Action 4b: Acquire, coordinate and/or implement key strategic projects					
	▪ Identify programmatic suite of projects					
	▪ Support the initiation of projects					
	Strategic Action 4c: Technical advisory services for groundwater cooperation and integration					
	▪ Coordinate groundwater activities and processes in the SADC region					
	Strategic Action 4d: Coordinate groundwater research					
	▪ Develop a consolidated and aligned groundwater research roadmap					
	▪ Implement and monitor progress of the groundwater research roadmap					
	▪ Lead and support institutional coordination in undertaking groundwater research.					
	▪ Deployment of interns to support research activities, where appropriate.					
	Strategic Action 4e: Resource mobilisation for groundwater management in SADC					
	▪ Develop a Resource Mobilisation Strategy					
	▪ Implement, monitor and review the Resource Mobilisation Strategy					

7.2 Monitoring and Review of the Business Plan

Effective management of the business plan will be based upon the ability to make key programmatic adjustments timeously. As with any plan, the management of resources becomes essential. This then requires an appropriate monitoring and evaluation framework to enable the on-going assessment of progress towards the implementation of the actions outlined here, as well as reflection on institutional and organizational aspects to enable the appropriate and structured use of human and financial resources. Together, these elements are critical to enable a progressive review to ensure actions are undertaken towards attaining identified targets, achieving donor specifications and through efficient and effective use of resources. An important element of the monitoring and evaluation framework will be the establishment of appropriate management structures at both regional, national and local levels within the Member States. The regular engagement by SADC-GMI through these structures will support programme transparency, will support a culture of regular reporting as well as discussion and engagement of the report. The formulation of these structures may develop with time, but it will be important to initiate these as soon as the programme is initiated. Importantly, these management structures have a key role to play in monitoring and reporting progress.

A balanced scorecard approach is adopted which encompasses the following four aspects:

- **Financial** which covers organizational financial performance and the use of financial resources
- **Customer/Stakeholder:** which covers organizational performance from the point of view the customer or other key stakeholders that the organization is designed to serve
- **Internal Process:** which covers organizational performance through the lenses of the quality and efficiency related to our product or services or other key business processes
- **Organizational Capacity:** which covers organizational performance through the lenses of human capital, infrastructure, technology, culture and other capacities that are key to breakthrough performance

7.3 Concluding Remarks

This Strategic Business Plan reinforces the institutional, oganisational and financial requirements to effectively run the SADC-GMI. The Business Plan also prioritises key actions to take forward over the next five-year period. A high-level risk matrix is presented, identifying the key risks, the impact and their likelihood to affect the sustainability of the SADC-GMI. The Financial Sustainability Plan, summarised here, demonstrates that the SADC-GMI will be financially sustainable over the next 5-year period, and beyond. The leadership and commitment of the SADC-GMI staff contributed and continue to contribute to the success of this fledgling institution. This, in addition to strict cost controls, appropriate budgeting, diversifying its income streams and implementation of the SADC-GMI Business Plan will see the SADC-GMI realise financial stability for its core functions, contributing to its overall financial sustainability as an organisation. The critical path for the SADC-GMI involves unlocking the approvals around the no-cost GEF-CIWA extension and obtaining subsidiarity status as a SADC institution. These actions will relieve the pressure to deliver in a tight timeframe as well as start to differentiate it as a Groundwater Institution to other institutions operating in the same area.

Finally, it should be noted that this is a living document, and annual review of the actions as well as the progress of the plan should be undertaken to adaptively manage the Business Plan going forward.

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APPENDIX A: BUDGET AND INCOME UNDER THE LOW AND HIGH SCENARIOS, WITH A TWO-YEAR EXTENSION OF THE GEF-CIWA FUNDING

Table A: Budget and income projections under the high scenario

SADC - GMI

Actual financial performance

	US$	2013/14	2014/15	2015/16	2016/17	Jan-18 2017/18 YTD	R	2013/14	2014/15	2015/16	2016/17	2017/18 YTD
Core Operational Costs:												
Auditors remuneration		2 558	2 228	1 811	3 686	9 895		27 075	27 075	27 075	49 875	131 100
Accommodation		215	675	538	28 311	12 830		2 294	7 782	8 481	386 060	169 981
Advertisements		-	-	-	12 666	2 580		-	-	-	179 169	34 177
Computer equipment		-	-	445	4 271	3 121		-	-	6 086	59 358	41 344
Consultation fees		-	-	-	194 718	59 738		-	-	-	2 675 876	791 453
Employee costs - executive		-	-	-	-			-	-	-	-	-
Employee costs - administrative		-	-	265	2 625	42 744		-	-	3 745	34 874	566 295
Entertainment and refreshments		94	-	115	2 204	5 615		993	-	1 653	29 152	74 396
Office alternations		-	-	3 295	6 884	1 154		-	-	44 680	101 413	15 289
Printing and stationery		-	-	-	1 046	405		-	-	-	14 751	5 364
Professional services - UFS		9 234	6 498	16 502	120 669	84 500		100 310	78 365	241 650	1 644 256	1 119 510
Small equipment		-	-	-	2 445	483		-	-	-	35 299	6 404
Souvenirs and gifts		-	-	-	2 373			-	-	-	33 060	-
Telephone and fax		-	-	-	83	92		-	-	-	1 124	1 214
Training costs		-	-	-	1 900	14 209		-	-	-	26 107	188 255
Travel costs (flight and car hire)		352	581	6 527	52 226	34 280		3 706	6 766	93 158	703 488	454 163
Total Operating expenditure		12 453	9 982	29 498	436 107	271 646		134 378	119 988	426 528	5 973 862	3 598 945

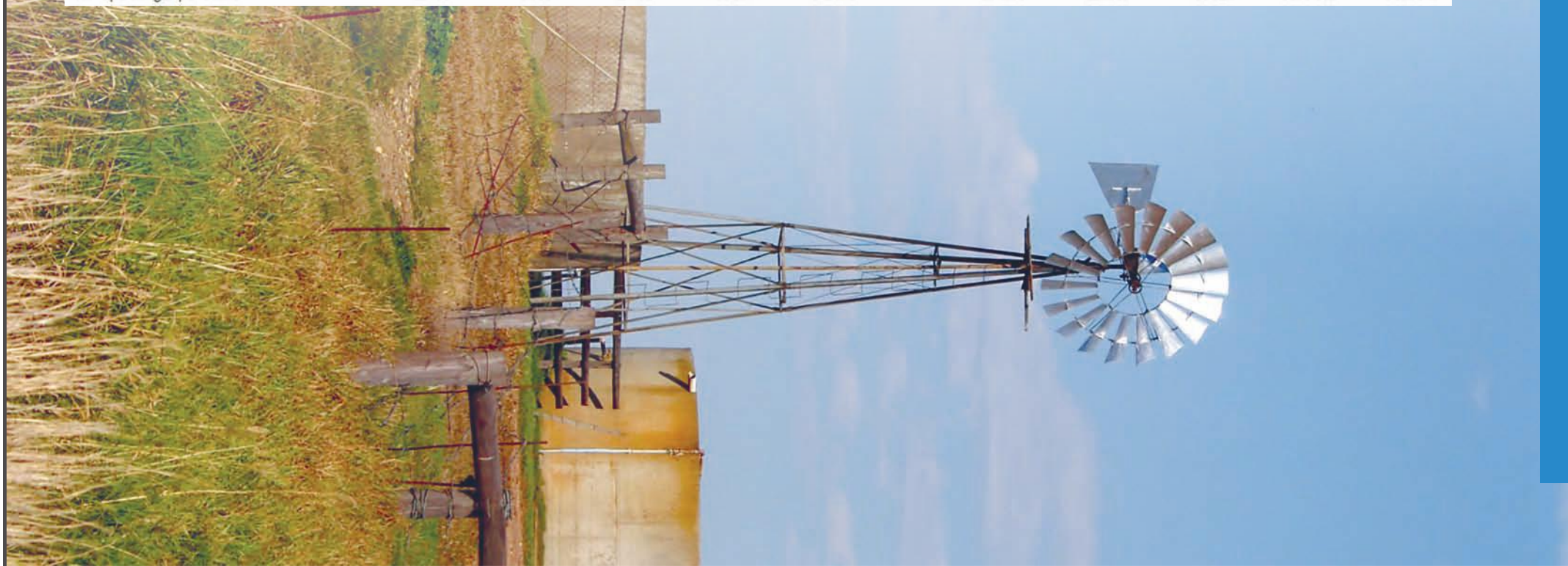

Table B: Income and budget projections under the low scenario

SADC - GMI

Actual financial performance

	US$					Jan-18	R					Jan-18
Core Operational Costs:		2013/14	2014/15	2015/16	2016/17	2017/18 YTD		2013/14	2014/15	2015/16	2016/17	2017/18 YTD
Auditors remuneration		2 558	2 228	1 811	3 686	9 895		27 075	27 075	27 075	49 875	131 100
Accommodation		215	675	538	28 311	12 830		2 294	7 782	8 481	386 060	169 981
Advertisements		-	-	-	12 666	2 580		-	-	-	179 169	34 177
Computer equipment		-	-	445	4 271	3 121		-	-	6 086	59 358	41 344
Consultation fees		-	-	-	194 718	59 738		-	-	-	2 675 876	791 453
Employee costs - executive		-	-	-	-			-	-	-	-	-
Employee costs - administrative		-	-	265	2 625	42 744		-	-	3 745	34 874	566 295
Entertainment and refreshments		94	-	115	2 204	5 615		993	-	1 653	29 152	74 396
Office alternations		-	-	3 295	6 884	1 154		-	-	44 680	101 413	15 289
Printing and stationery		-	-	-	1 046	405		-	-	-	14 751	5 364
Professional services - UFS		9 234	6 498	16 502	120 669	84 500		100 310	78 365	241 650	1 644 256	1 119 510
Small equipment		-	-	-	2 445	483		-	-	-	35 299	6 404
Souvenirs and gifts		-	-	-	2 373			-	-	-	33 060	-
Telephone and fax		-	-	-	83	92		-	-	-	1 124	1 214
Training costs		-	-	-	1 900	14 209		-	-	-	26 107	188 255
Travel costs (flight and car hire)		352	581	6 527	52 226	34 280		3 706	6 766	93 158	703 488	454 163
Total Operating expenditure		12 453	9 982	29 498	436 107	271 646		134 378	119 988	426 528	5 973 862	3 598 945

APPENDIX B: INTERNATIONAL DONOR INSTITUTIONS: RELEVANCE AND RATING

Criteria	Weighting	100 points	67 points	33 points
Groundwater relevance	50%	Groundwater explicitly mentioned in mandate	Water in general mentioned in mandate	No specific reference to water in mandate
SADC funding appetite	30%	SADC region a focus area	Africa in general a focus area	No specific reference to Africa/SADC
Recent relevant projects	20%	Groundwater related project funded/delivered in SADC countries in the last 5 years	Water related project delivered in African countries in last 5 years	No evidence of water related projects delivered on African continent
Score		70-100	50-69	0-49
Rating as a donor for SADC-GMI		Good	Moderate	Not Ideal

Name of the Donor	Score	Groundwater Relevance	SADC funding appetite	Recent relevant projects
Australian Agency for International Development (AusAID)	33	💧	🌍	$
Austrian Development Cooperation (ADC)	77	💧💧	🌍🌍🌍	$ $
Directorate General for Development Cooperation (DGIC)	43	💧	🌍🌍	$
Enabel (prev. Belgian Technical Cooperation BTC)	77	💧💧	🌍🌍🌍	$ $
Canadian International Development Agency (CIDA)	60	💧	🌍🌍🌍	$
Danish International Development Agency (DANIDA)	77	💧💧	🌍🌍🌍	$ $

Name of the Donor	Score	Groundwater Relevance	SADC funding appetite	Recent relevant projects
French Development Agency (AFD)	33	💧	🌍	$
GIZ - Deutsche Gesellschaft für Zusammenarbeit GmbH	70	💧💧	🌍🌍🌍	$
Irish Aid - Development Cooperation Division	77	💧💧	🌍🌍🌍	$ $
Italian Directorate General of Development Cooperation	77	💧💧	🌍🌍🌍	$ $
Japan International Cooperation Agency (JICA)	53	💧	🌍🌍🌍	$
Lux Development S.A.	33	💧	🌍	$
Ministry of Foreign Affairs (The Netherlands)	33	💧	🌍	$
Norwegian Agency for Development Cooperation (Norad)	77	💧💧	🌍🌍🌍	$ $
Portuguese Institute for Development Assistance (IPAD)	77	💧💧	🌍🌍🌍	$ $
Spanish Agency for International Cooperation (AECI)	33	💧	🌍	$
Swedish International Development Cooperation Agency (Sida)	83	💧💧	🌍🌍🌍	$ $ $
Swiss Agency for Development and Cooperation (SDC)	83	💧💧	🌍🌍🌍	$ $ $
UK Department for International Development (DFID)	33	💧	🌍	$
US Agency for International Development (USAID)	77	💧💧	🌍🌍🌍	$ $

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