



Building Capacity for Water Resources Management in Southern Africa

*‘STRENGTHENING HUMAN AND INSTITUTIONAL
CAPACITY FOR INNOVATIVE, SYSTEMIC AND
SUSTAINABLE REGIONAL WATER SOLUTIONS IN A
CHANGING ENVIRONMENT’*

WaterNet Phase V Strategy (2022 – 2026)





Foreword



Executive Summary

WaterNet has developed its fifth strategy for implementation in the 2022-2026 period. This 5th strategy covers Phase V of the Waternet implementation cycles and focuses on strategic issues that aim to address fundamental challenges to the Network effectiveness, impact and sustainability, while also taking into consideration the organisational dynamics and contemporary issues across the wide spectrum of the water sector in the eastern and southern African region.

The vision for Strategy V is “Strengthening human and institutional capacity for innovative, systemic and sustainable regional water solutions in a changing environment”. The goals set for the Strategy V are as follows:

Goal 1 – Utilising and expanding regional capacity for degree and non-degree education in IWRM.

Goal 2 – Addressing key challenges and providing relevant solutions through a dedicated collaborative research agenda aiming for impact.

Goal 3 – Becoming the “go-to” source of expertise and knowledge on IWRM in Southern and Eastern Africa.

Goal 4 – Increased ownership of WaterNet members and SADC member states in the running and operations of the WaterNet business.

Guided by a reflection on the previous strategies and periodic reviews, and the successes and challenges and/or limited success in actual implementation thereof, the Strategy V seeks to address contemporary issues including global trends on digitization and reliance on virtual platforms, thus requiring adoption of new approaches to capacity development (including online interactions), the engaged research and innovative solutions and improved income generation approaches in the sector. The evident changes in the global and regional water sector due to the new challenges (including the pandemic and similar situations) coupled with maintaining consistent supply of water (sufficient quantity of quality) in the face of emerging pollutants and continued deterioration of the water treatment and supply systems also informed the strategic focus.

The strategic issues under Phase V will speak to the three pillars namely, Education and Professional Training, Engaged Research and Innovation, Knowledge Management and Outreach, supported by the Governance and Management of the Network.

The *Education and Professional Training* pillar: For phase V, the educational focus will be devoted toward the establishment of fully fledged programmes, at least five member institutions starting with those already offering (part of) the IWRM Master programme and supporting Francophone and Lusophone programmes. WaterNet will support module and curriculum development and consolidation. Furthermore, WaterNet will support the best research projects of students through embedding these into collaborative research projects. Phase V will also systematically support activities that will maintain the regional dimension to the Masters programme. These will include *inter alia* a yearly summer school of students from various institutions associated with the WaterNet Master’s programme together with joint online delivery of modules, MOOCS and webinars from WaterNet members. The short professional training courses will continue to support the implementation of the 5th SADC

Regional Strategic Action plan, RBOs strategic plans and water utilities in their search for continuous professional development. WaterNet Phase V will build short professional training courses in hybrid versions with Online and face to face courses delivered throughout WaterNet Phase V.

The *Research and Innovation* pillar: For WaterNet Phase V, the network will continue to generate new knowledge from research activities in responding to local, regional and global calls on research in line with the SADC Research agenda and the United Nations sustainable development goals. Systemic approaches and innovation will be given prominence as new research proposals are developed in Phase V. Graduates students at Masters and doctoral levels will continue to be embedded in collaborative research throughout WaterNet Phase V. New synergies will be established with local and regional research programmes for increased coordination and impact. Phase V research will be conducted with a focus on impact on the ground. This will be materialised through well thought theories of change that will be developed for all collaborative Research projects. Furthermore engagement with relevant actors on the ground are planned.

The *Outreach and knowledge management* pillar: Phase V will be characterised by the increased use of the virtual environment in various activities, including convening the symposium. Countries, such as Angola, Comoros, DR Congo, Lesotho and Seychelles that have not been able to stage the event will be given preference. WaterNet will continue to work with international and regional organisations (IAHS, GWP) in order to successfully co-convene the symposium during Phase V. The peer reviewed publications will be produced following symposia in reputable Journals such as Physics and Chemistry of the Earth (WaterNet Special Edition). Additionally, a database of water experts with their skills will be developed in the course of Phase V. Similarly policy briefs and innovation facts sheets from collaborative research projects will be systematically disseminated to SADC policy makers through the SADC Water Resources Technical Committee.

Management and Governance: One of the elements that explains WaterNet achievements to date has been its governance and corporate management. The highest governing structure has been the Annual General Meeting where Trustees are elected. Since 2006, Trustees with supporting Members have been providing oversight and strategic directions to the implementation of WaterNet activities as part of the Management Board. During Phase V, the AGM and the Board will continue to render their functions to note however is the stronger involvement of the Management Board in formulating strategic directions for WaterNet. The selection criteria of Board Members, terms of references of various committees of the WaterNet Management Board will be redefined. New Management Board Committee will be established when necessary. Additionally significant virtual introductions of operations for the two governing bodies will be introduced. Mid-year Board meetings will be held online and AGM will also be conducted in hybrid fashion (face to face and online).

The day to day activities of WaterNet are coordinated and managed by the Secretariat (Executive Management). The Secretariat will continue to render its function during Phase V, but will consider the secondment of staff from member institutions and increased decentralisation of tasks in order to work towards more financial sustainability. Since inception, the Secretariat has been hosted at one of the WaterNet members at the University

of Zimbabwe, in Harare. As of January 2022, the Secretariat will be hosted within North West University (NWU) campus of Mafikeng in South Africa.



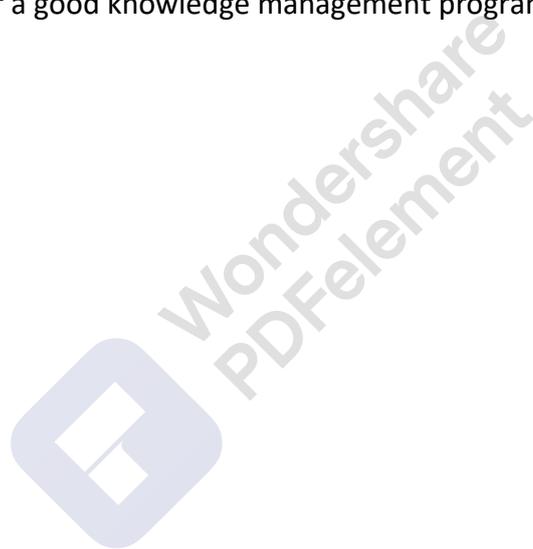
Acronyms

AGM	: Annual General Meeting
COP	: Community of Practice
COVID-19	: Corona Virus Disease
DANIDA	: Danish International Development Agency
DGIS	: The Netherlands: Directorate-General for International Cooperation
ERM	: Enterprise Risk Management
GWPSA	: Global Water Partnership Southern Africa
IAHS	: International Association of Hydrological Sciences
IOFPs	: its impact-oriented flagship projects
IWRM	: Integrated Water Resources Management
MSc	: Master of Science
MOOCs	: Massive Open Online Courses
MoU	: Memorandum of Understanding
MTR	: Mid-Term Review
NGO	: Non-Governmental Organisation
PhD	: Doctor of Philosophy
RSAP	: Regional Strategic Action Plan
SADC	: Southern African Development Community
SDG	: Sustainable Development Goals
TOC	: Theory of Change
WARFSA	: Water Research Fund for Southern Africa

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1. Introduction

WaterNet is a regional capacity building network of universities and training institutes specialising in water and water related issues. As the network enters its 23rd year of existence in the southern African region and parts of eastern Africa, it seeks to build upon its strengths and evolve into a sustainable network playing a leading role in water capacity development in the SADC and East Africa region, and contributing directly to the global agenda of sustainable development.

WaterNet is governed by an elected Board of Trustees, who together with the supporting members, make up the Management Board. The Management Board develops and monitors implementation of policy and reports annually to the Annual General Meeting (AGM). The Executive Management (Secretariat) is appointed by, and reports to, the Management Board. All funds received by the Trust are accounted for in-house and audited by external auditors each year.

WaterNet Vision

A future in which the SADC and East African Community (EAC) regions have the institutional and human capacity to educate their own water managers, both new graduates and lifelong learners, capable of contributing to the equitable sharing and sustainable utilisation of water resources for poverty alleviation, economic development, human wellbeing and environmental security.

WaterNet Mission

To achieve a sustainable and impact upon institutional and human capacity in Eastern and Southern Africa in the field of IWRM through training, education, and research, by harnessing the complementary strengths of institutions in the region.

The focus of WaterNet is on building institutional and human capacity development in Integrated Water Resources Management (IWRM) through professional training, education, research and outreach in the region. This is achieved by enhancing the capacity of its member institutions and other stakeholders in southern Africa as well as in Uganda and Kenya, harnessing their complementary strengths.

The focus of the previous phases of WaterNet are presented in the table 1 below:

Table 1 WaterNet phases (1999-2021)

Phase identification	Period	Theme
Phase 1	Sep 1999-Mar 2005	WaterNet: Forging the Network; the establishment of a regional network for education, training and research on Integrated Water Resources Management in Southern Africa
Phase 2a	Apr 2005- Jul 2008	Building Capacity for Water Resources Management in Southern Africa
Phase 2b	Aug 2008- Dec 2011	Building Capacity for Water Resources Management in Southern Africa
Phase 3	Jan 2012-Dec 2016	Achieving sustainability by increasing impact
Phase 4	Jan 2017-Dec 2021	Strengthening capacity to co-create regional water solutions in a changing environment

WaterNet activities/programmes for the Phase V Strategy are focused on three pillars shown in Figure 1, supported by the Management and Governance of the Network.

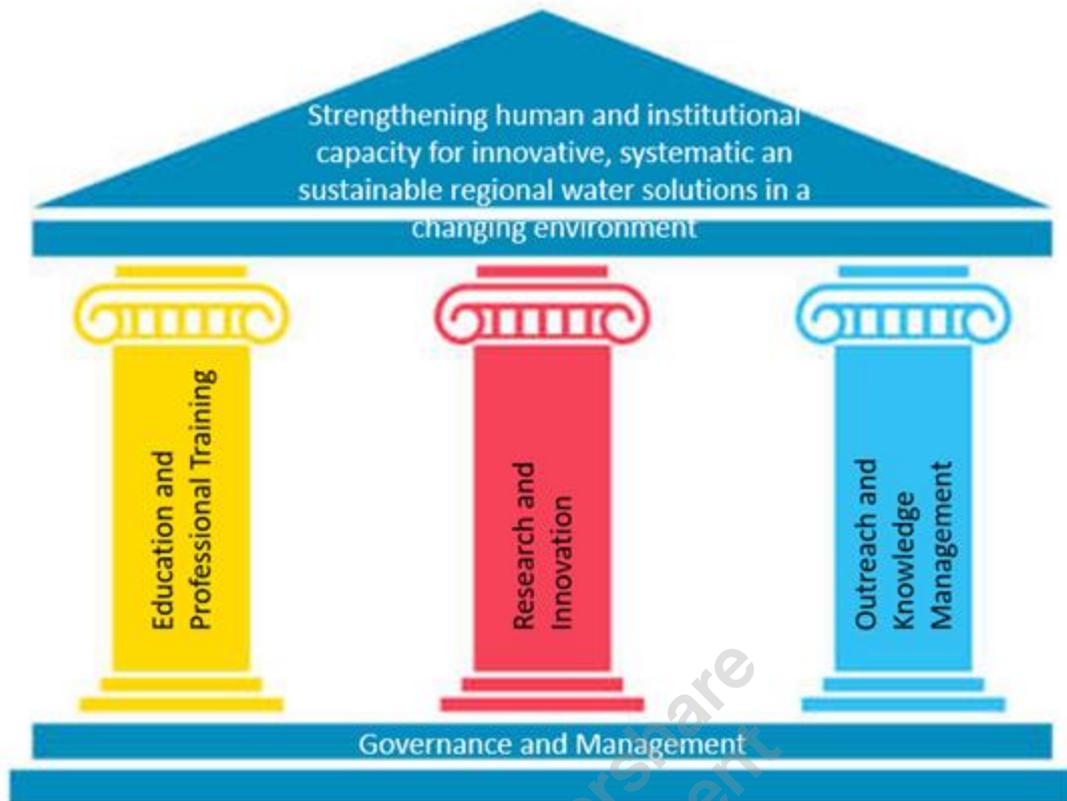


Figure 1 The three pillars of WaterNet phase V strategy

Education and Professional Training

WaterNet capacity building activities have been undertaken through the Master's programme in Integrated Water Resources Management (IWRM), an educational programme which is jointly delivered by seven universities from the SADC region during the previous phases. To date, the IWRM programme has produced more than 500 Msc graduates. For phase V, the educational focus will be devoted toward the establishment of fully fledged programmes at least 5 member institutions, starting with those with Specialisation options including at least one Francophone or Lusophone programme. WaterNet will support module and curriculum development and consolidation. Furthermore, WaterNet will support the best research projects of students by embedding these into collaborative research projects. Phase V will also systematically support activities that will maintain the regional dimension, which was appreciated a lot in the WaterNet IWRM Masters programme. These will include a yearly summer school of students from various institutions associated with WaterNet together with joint online delivery of modules, MOOCs and webinars from WaterNet members.

From its inception, WaterNet has delivered 96 short professional training courses on various aspects of IWRM and more than 2500 participants have been trained. The short professional training courses will continue to support the implementation of the 5th SADC Regional Strategic Action plan, RBOs and water utilities in their search for continuous professional development. WaterNet phase V will build short professional training courses in hybrid version with Online and face to face courses delivered throughout WaterNet Phase V.

Engaged Research and Innovation

The second pillar of WaterNet capacity building over the past twenty years has been the generation of new knowledge through collaborative research. The pillar has managed and successfully delivered a portfolio of over 20 Million Euros worth of research funds. By the end of Phase IV, 32 PhD students and almost 100 MSc students have graduated from the various collaborative research projects which WaterNet contributed to and embedded into these research projects. For WaterNet Phase V, the network will continue to generate new knowledge from research activities in responding to local, regional and global calls on research, in line with the SADC Research agenda and the United Nations sustainable development goals. Systemic approaches and innovation will be given prominence as new research proposals are developed in Phase V. Graduate students at Masters and Doctoral level will continue to be embedded in collaborative research throughout WaterNet Phase V. New synergies will be established with local and regional research programmes (e.g. SANWATCE, SADC-GMI, SASSCAL, WRC) for increased coordination and impact.

Knowledge Management and Outreach

The next thrust of WaterNet capacity building in the SADC region and beyond has been to engage with partners, researchers and practitioners from the Water sphere with the annual symposium being one of the flagship events. By the end of 2021, 22 symposia would have been convened, rotating from one SADC country to the next. All SADC countries have had an opportunity to organise the WaterNet symposium except for Angola, Comoros, DR Congo, Lesotho and Seychelles. The WaterNet symposium gathers around 400 participants for the face to face event and more than 800 participants for the 2020, which was the first to be held online. The proceedings of the WaterNet symposium have been published in the Elsevier's Journal of Physics and Chemistry of the Earth and more than 650 publications have been produced from the all symposia that WaterNet has convened to date. Phase V will be characterised by the strong introduction on the virtual environment in convening the symposium. In addition, countries that have not been able to stage the event will be given preference. WaterNet will continue to work with international and regional organisations (IAHS, GWP) in order to successfully co-convene the symposium during Phase V. The peer reviewed publications will be produced following symposia. Additionally, a database of water experts with their skills will be developed in the course of Phase V. Similarly policy briefs and innovation facts sheets from collaborative research projects will be systematically disseminated to SADC policy makers through the SADC Water Resources Technical Committee.

Governance and Management:

WaterNet started in March 2000 as a project and grew into an autonomous institution registered as a Trust in Botswana in 2006. The Trust was later granted the SADC subsidiarity Status by the Head of States in August 2012 in Maputo, Mozambique. One of the key aspects to WaterNet achievements to date has been its governance and corporate management. The highest governing structure has been the Annual General Meeting where Trustees are elected. Since 2006, Trustees with supporting Members have been providing oversight and

strategic directions to the implementation of WaterNet activities as part of the Management Board. During Phase V, the AGM and the Board will continue to render their functions to note however is the stronger involvement of the Management Board in formulating strategic directions for WaterNet. The selection criteria, the terms of references of various committees of the WaterNet Management Board will be redefined. New Management Board Committees will be established as necessary. Additionally significant virtual introductions of operations for the two governing bodies will be introduced. Mid-year Board meetings will be held online and AGM will also be conducted in hybrid fashion (face to face and online).

The day to day activities are implemented by the WaterNet Secretariat headed by an Executive Manager supported by other full time staff members who are appointed by the Management Board. The Secretariat will continue to render its function during Phase V but will consider the secondment of staff from member institutions and increased decentralisation of tasks in order to work toward more financial sustainability. The Secretariat has been hosted at one of the WaterNet members at the University of Zimbabwe, in Harare since its inception. As of January 2022, the Secretariat will be hosted within North West University campus of Mafikeng in South Africa.



2. Review of Previous Strategies

A review of the Phase IV strategy was conducted in 2019. This review reflected on the previous phases but also had a forward looking perspective in order to provide insights into the design of the WaterNet Phase V. The review suggested actions that could better support the sustainability of the network with emphasis on the sustainability of the Masters Programme and the Secretariat, the scope of the network's activities and also engaging and expanding potential funding agencies to support future phases of WaterNet. The sustainability of the WaterNet programmes and its Secretariat are set to be improved through the Phase V strategy. WaterNet Phase V is therefore informed by the lessons learnt from the successes and challenges of previous strategies with specific focus on research collaboration and impact, quality of the programmes, financial sustainability and engagement of members.

2.1 Successes and challenges of Phase II, III and IV

Capacity development

Throughout the previous phases, WaterNet has been recognised as a leader in capacity development for the water sector in the region, through its IWRM Masters programme and short professional trainings. While the earlier phases largely relied on external expertise, the latter phases saw more and more trainers and teachers being sourced from the Network and region. The Network itself has gained knowledge and experience to develop, update and implement various aspects of the capacity building programme, and several universities (e.g. Namibia University of Science and Technology, the University of Malawi) have developed or have initiated the development of their own fully fledged Masters programme in IWRM.

Research

WaterNet has been engaged in various large research projects (e.g. Challenge program, AfriAlliance, Breccia) funded through a range of donor agencies. These projects have created opportunities for MSc, PhD and Post Doc researchers to work collectively in a research project supported by regional and internationally renowned researchers. Whilst individually these projects have been successful, the topics addressed in these projects have been largely driven by donor priorities and lack an overarching WaterNet strategy. In addition, the majority of the outputs focus on academic audiences (eg. scientific symposia and journal publications), and lack the translation to practical applications (eg. through policy briefs).

Governance

WaterNet grew from a project to a stand-alone institution, registered as a Trust in 2006 in Botswana and trustees have been providing strategic guidance to the implementation of activities. This led to the recognition of WaterNet as the SADC subsidiary institution for capacity building for the water sector in Maputo (2012). The demand and the relevance of the programme are still very high in the region. However, the financial sustainability in running all the WaterNet activities has experienced a decrease in core funding from International Cooperating Partners (ICPs) hence WaterNet has to engineer project based funding that comes with its own limitations.

2.2 Summary of the reviews

Phase V is also informed by observations and/or recommendations (see Table 2) made by the mid-term review report (MTR) 2016, covering part of Phase II and III (2010 – 2015) and the MTR of 2019 covering part of Phase IV (2017 -2019).



Table 2 Summary of the WaterNet reviews



2.3 Lessons learnt

The lessons learnt from the previous strategies were selected based on the relevance and potential to strengthen the direction/focus of Strategy V. These are listed follows:

1. The Network must be proactive in developing proposals for SADC and to support SADC in its fund raising efforts for RSAP V. This will create opportunities to source funding through SADC.
2. The membership of WaterNet should be broadened to include the various categories of users of its capacity development and research services. The approach will contribute towards improving financial sustainability of the network, and creating a pool of active members who will increase the capacity to secure project funding and support successful implementation of the funded projects.
3. WaterNet must adopt the “users pay for services” approach for member institutions, industry and SADC member states, and use external donor funding to improve human resource capacity of the Secretariat.
4. Diversified funding, cost recovery, and more responsive programmes must be developed and implemented to ensure network sustainability as core funding is decreasing.
5. A plan must be developed and resources secured for quality review of research and capacity building programmes.
6. The Secretariat must more proactively engage members and alumni in the implementation of collaborative projects.

3. Vision of Phase V Strategy

The vision was guided by a reflection on the previous strategies and reviews i.e. the successes and challenges (including the failure to achieve targets and aspirations) in actual implementation thereof.

The current situation (i.e. the COVID-19 pandemic) and the global trends on digitalization and reliance on virtual platforms also requires adoption of new approaches to capacity development (including online interactions), and therefore, the review of training and research programmes. The research focus and income generation has also changed due to the new challenges coupled with the need for maintaining consistent supply of water (sufficient quantity of quality) in the face of emerging pollutants and continued deterioration of the water treatment and supply systems that are already confronting climate and environmental change complications. These require innovative solutions in the sector.

Therefore, the theme for Phase V Strategy is:

Strengthening human and institutional capacity to support innovative, systemic and sustainable regional water solutions in a changing environment.

3.1 Theory of Change

The “Theory of Change (TOC)” approach was adopted to establish the appropriate indicators that would be used to assess achievement of the programmes particularly in terms of the impacts and outcomes. The TOC is often used to map out the expected pathways or links between programme/project activities and its intended impact, whilst taking into account different contextual factors (assumptions) that might influence the change.

Therefore, the key assumptions, outputs and outcomes underlying the theory of change for achievement of the vision and impactful implementation of this strategy are summarised in Figure 2.

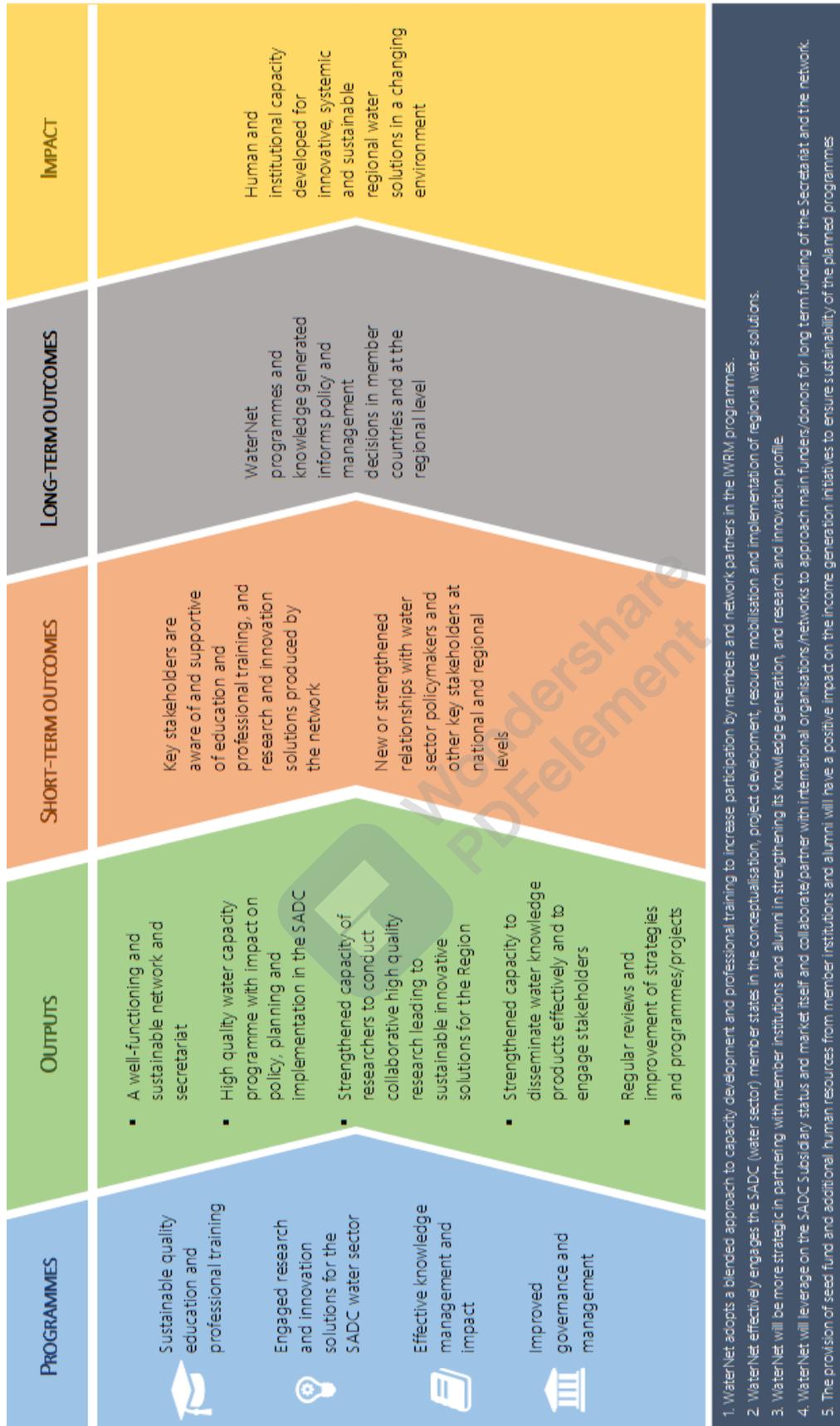


Figure 2 Components of the TOC for the Phase V Strategy

4. Strategic Focus Areas

4.1 Education and Professional Training

WaterNet has built an impressive track record operating at the region level in capacity building of water professionals across Eastern and Southern Africa. The WaterNet IWRM Masters programme, which up to date has delivered over 500 MSc graduates from across the region, is the flagship capacity building programme of the network. The MSc programme is complemented by a demand driven short professional trainings programme, supporting amongst others the SADC human capacity building strategy for the water sector. The following sections describe the activities and expected outcomes of the WaterNet Phase V strategy for these two components. Capacity building on research at post graduate level (including PhD and post-Doctoral research) is further discussed in the research component of the strategy. The overarching goal under WaterNet Phase V will be *'Utilising and expanding regional capacity for academic and non-academic education in IWRM'*.

4.1.1 Regional IWRM Masters programme

The Master's programme in integrated water resource management (IWRM) is the flagship of WaterNet's services to the SADC region and remains very relevant to the region's development goals. Many of the WaterNet alumni are working for critical governmental institutions (e.g. water supply companies; Government Departments responsible for water, environment and agriculture), international organisations, universities and research institutions. The current model of the WaterNet IWRM Masters programme with two core host institutions and 7 specialisation hosts was meant to best utilise the available human resources, to foster regional integration and to cater for a diverse regional student body. The core benefits of the regional programme include common understanding of IWRM principles across the region and the creation of a regional network of experts.

The host institutions have also benefited from the aggregation of resources and expertise from within and outside the region to set up and run (parts of) the Masters programme at their institutions. Several institutions (University of Namibia, University of Zambia, University of Malawi, etc.) are now also offering full IWRM Masters programmes by expanding the specialisation modules, which draw local students (some sponsored from national or regional Government agencies or organisations). At the same time, it has become increasingly challenging to secure sufficient fellowships for the WaterNet regional Masters programme from key donors and the commitment from SADC countries has not materialised to its full potential, as the regional master's programme is considered relatively expensive. This warrants a review of the IWRM Masters' model as we craft future phases of the network.

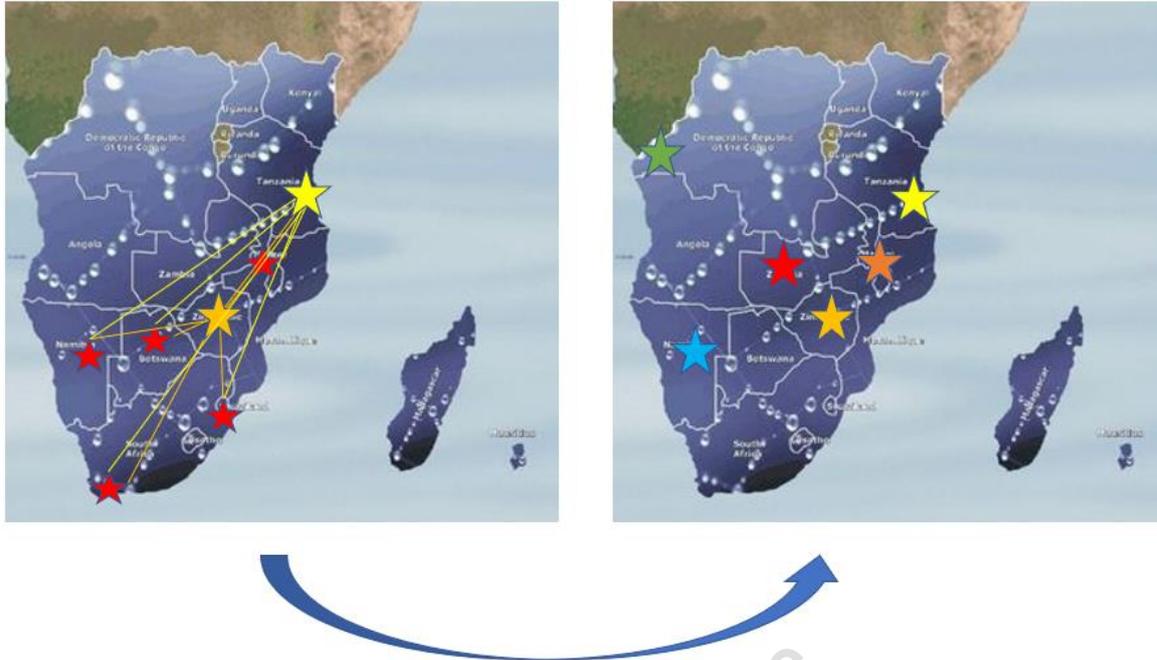


Figure 3 Msc IWRM Core Hosts and Specialisation Institutions new directions

WaterNet phase V will therefore implement a paradigm shift (Figure 3) from the current set up and utilize the expanding capacity within the region. Those universities interested in (or are already) developing their own fully accredited Master's programme in IWRM under the WaterNet flag can receive support from WaterNet in various ways (e.g. Network members providing inputs and support to developing and initially teaching parts of the course, students participating in regional activities, see below). There will also be room to develop new specialisations and to specifically support Francophone and Lusophone programmes. To keep the regional flavour of the current Masters programme, WaterNet Phase V will support activities which ensure regional integration and collaboration of learners and trainers by convening joint activities (for example a summer school for selected students of the different IWRM programmes), staff exchange and joint development and offering of online modules. This will allow the students to tap into the pool of expertise available regionally.

The current COVID-19 pandemic has shown that there is a lot of scope for online education and many of the regional components suggested can be offered and supported online, making best use of the regional network of experts. However, it also requires investments into capacity building of tutors and making the required infrastructure available for the students (such as internet facilities and computers).

It is envisaged that the new structure of the IWRM Masters programme will allow for lower costs, reduced fees and more opportunities for students to follow the programme. This will therefore increase the long term sustainability of the programme.

4.1.2 Short professional training courses

As a SADC subsidiary institution, WaterNet offers short professional training courses as part of SADC's human capacity building strategy for the water sector. The training supports the Regional Strategic Action Plans (RSAPs), River Basin Organisations (RBOs) and water utilities strategic plans. The topics covered under these training are relevant to identified priority

areas. In addition to the strategic support to SADC and *ad hoc* request for trainings and collaboration with other regional capacity building networks (Cap-Net and GWPSA), it is important for WaterNet to showcase their expertise and relevance on IWRM-related topics in Southern Africa by organising targeted webinars. Translating the developed materials for the short course professional trainings into online webinars, and full online courses or integration into the Masters curricula needs to be further explored. Using online platforms allows for the regional expertise to utilise to deliver them, which also reduces costs.

4.1.3 Outcome

The WaterNet Phase V strategy on education and training is expected to further strengthen WaterNet's position in providing quality and relevant capacity building in IWRM, mainly sourced from within the network. The transition towards supporting fully fledged programmes at member institutions will reduce the cost of a fellowship, making it easier for local students to enrol (including part time options) and donors and SADC MS to support students. This will result in more graduates, while the regional activities will continue to allow regional integration.

The proposed strategic actions, their outputs and the anticipated outcomes are presented in the project Logic framework under section 6.

4.2 Research and innovation

The network has gained substantial experience and a reputation for producing relevant research. WaterNet has a unique position in the region, being able to understand the regional context, having capacity for implementing research and the connections to the public and private sector in the region. Over the years, WaterNet has successfully acquired and implemented a number of collaborative research programmes in collaboration with network members, RBOs, civil society, community-based organisations and international institutions, including the Consultative Group on International Agricultural Research (CGIAR) and other international research centres. These research programmes have offered opportunities for Masters and PhD students to gain the necessary research skills under the guidance and supervision of a diverse supervisory team. The knowledge generated has been published not only as theses, but has also featured in scientific journals, including the dedicated WaterNet special issue of Physics and Chemistry of the Earth. The following sections describe the Phase V activities. The overarching goal for research under WaterNet Phase V is '*Addressing relevant challenges and providing relevant solutions through a dedicated collaborative research agenda aiming for impact*'.

4.2.1 Aligned collaborative research agenda

The implemented research programmes of WaterNet, although all related to IWRM, and through WaterNet's facilitation to address relevant issues in the region, lack an overarching

goal and are often opportunity driven. The focus of Phase V should therefore be on sourcing funds for collaborative research projects aligned to two main focal areas: the SADC Water research agenda and Sustainable Development Goals (SDGs). WaterNet's status as a SADC subsidiary institution will be important to attract interest of collaborators for the implementation of the SADC water research agenda.

While there is large potential for WaterNet to be engaged in such research projects, the engagement of the network membership is not uniform, with some members contributing often and others not participating at all. Phase V will therefore put more efforts into engaging a larger number of members in the research programmes, including hosting of Master and PhD fellowships (see also section on education) for members aligning their educational programme to WaterNet. To encourage more collaborative research, partnerships and co-authorship of quality open access publications must be promoted. A number of actors need to be engaged in these initiatives. Amongst these are public sector entities (e.g. government agencies, river basin organisations, and water utilities), private sector (e.g. food-processing industry, consultancy firms, agricultural industry, and mining industry) and civic and local community representative organisations.

The research and innovation component will be primarily funded through research grants (non-core donor funding). To grow in the field of research application, WaterNet must further encourage and support the formation of consortia/partnerships among its members. Specifically, those focusing on the submission of funding proposals (to regional and international funding agencies) related to transdisciplinary and interconnectedness/nexus research should be prioritised. WaterNet will partner with member institutions to conduct research training programmes including grant-writing for academics, proposal writing for Masters and Doctoral researches. Phase will devote attention to embedding doctoral fellowships within collaborative research projects. Furthermore, WaterNet will closely work with on-going initiatives for PHD studies such as the SASCAL Graduates programme at NUST in facilitating WaterNet Msc graduates enrolment and participation.

4.2.2 Research to impact

While it is recognised that peer reviewed scientific publications are necessary outputs of research, these articles are insufficient tools for reaching broader audiences and efforts should be put into the translation of existing scientific research output/publications into implementable tools such as models, policies, plans, decision support tools. Research should translate from publications to implementable projects that change lives of communities.

Each research programme therefore should include a clear Theory of Change (ToC) which should address either the SADC regional priorities or SDGs (aligned with the overall vision of direction of research for Phase V). The ToC should also strengthen the planning, implementation and evaluation of all impact-oriented research projects undertaken by the member institutions and their alignment to the WaterNet research programme.

Next to the practical application of research, the research results should be translated into capacity building products. Research results should find their way into the short professional trainings programme, through seminars or workshops (including online webinars) and finally

in existing course materials or if sufficient interest in developing new modules which may lead to new specialisations.

4.2.3 Outcome

The WaterNet Phases V strategy on Research and Innovation is expected to produce relevant research outputs which can be translated to practical water solutions which address the regional challenges as defined by SADC.

The proposed strategic actions, their outputs and the anticipated outcomes are presented in the project Logic framework under section 6.

4.3 Outreach and knowledge management

Over the years, WaterNet has generated a wealth of knowledge through its capacity building activities (MSc and PhD research) and research projects. The results have been shared and communicated at the annual symposia (since 2001) and through a dedicated special issue of the Journal of Physics and Chemistry of the Earth (>500 papers published so far). This platform is not only used to present WaterNet related outputs, but is also utilised by the network to present their research results and offers a platform to exchange knowledge and networking. A large amount of IWRM related publications in the SADC region are presented in these special issues (van der Zaag, 2007; Jonker et al., 2012; Kileshye Onema et al., 2020), indicating its relevance. While WaterNet has been very successful to reach the academic community, besides the publications, a lot of other research results are not readily available or packaged in a way which is understandable outside the academic sphere. The WaterNet Phase V will put further emphasis on outreach beyond the academic community and to establish a dedicated platform and communication strategy to present and share generated knowledge. The overarching goal under knowledge management and outreach for WaterNet Phase V strategy is *“to become the go-to source for expertise and knowledge on IWRM in Southern and Eastern Africa”*.

4.3.1 Increasing (online) visibility and networking

The value of the WaterNet symposia is undeniable and has also generated external donors supporting the event and raising the profile of the organising institution. However, the organisation of these symposia is quite demanding and it has been increasingly becoming difficult to organise and host each year. The physical meeting contributes to the carbon footprint, and hence, climate change by regional and international travel of over 400 participants. The COVID-19 pandemic has shown the value of online events, while it does hamper the networking aspects. As a start, it is proposed that hybrid symposia events be adopted to accommodate large numbers who do not necessarily have to travel and incur expenses if they would rather not. Therefore 50% of the symposia will be held online initially, which will allow for larger participation while also reducing cost and emissions. Both the proceedings of the online and physical events will be published in the special issue. Following up on the successful webinars organized in the past year, Phase V will continue with these events as it has shown to be very successful in creating an online presence and allowing for interesting research results to be presented to a larger audience. It also allows for a broader

discussion on selected topics. The physical symposium remains important as a very important networking event.

The focus of the symposia and other outreach events will be extended from purely academic to include content relevant for the public and private sector. In collaboration with those stakeholders, events will be organized and content developed. Symposia have been held in all 16 SADC countries and Uganda, except for the following SADC countries: Angola, DR Congo, Lesotho, Seychelles and Comoros. During Phase V, priority will be given to these countries when Expressions of Interest are received to host the symposium. Phase V symposia will also be characterised by the Hybrid nature (face to face and online) of their implementation

4.3.2 Communication

Continued efforts will be done to implement the 2018 developed communication strategy, continuing to offer an up to date and informative webpage, use of various social media platforms (Facebook, twitter, email) to announce events and to share information. Regular newsletters are to be developed every six months to inform the network and beyond. In addition to the ongoing activities, WaterNet in the new phase will establish a system of matchmaking which will allow WaterNet members to find people with relevant expertise for developing proposals, implementing joint projects, join advisory boards etc. This matchmaking system will among others contain a data repository of WaterNet Alumni and members, skills inventory. A clear strategy needs to be developed on how to set up such a system and how to deal with sharing personal information through this database.

4.3.3 Increasing access to knowledge

A good knowledge management (KM) framework enhances knowledge gathering, sharing, application, and retention and enables the effective and successful implementation of a quality management system. While WaterNet has generated a lot of knowledge, beyond the scientific publications, most of this knowledge is not stored systematically nor readily accessible. It is therefore important that WaterNet creates a system for storing and sharing the knowledge products, preferably an easily searchable database. In addition to the available knowledge products, WaterNet will develop knowledge products based on these research products which address issues and challenges from the public and private sector. WaterNet will also elicit stories of successful application of generated research by the public and private sector.

4.3.4. Outcome

The WaterNet Phase V strategy on Outreach and Knowledge Management is expected to increase the audience for WaterNet Knowledge products through both offline and online activities, and translating scientific results into targeted products (incl policy briefs).

The proposed strategic actions, their outputs and the anticipated outcomes are presented in the project Logic framework under section 6.

4.4 Governance and Management

WaterNet's institutional environment comprises the structures and systems of the Southern African Development Community (SADC); WaterNet will continue to serve as a SADC subsidiary institution for Phase V (2022-2026). The 16 SADC Member States, in particular the government ministries responsible for water resources, will expect WaterNet reports of activities through the Water Resources Technical Committee (WRTC).

4.4.1 Governance and Management

The current governance structure is summarised in Figure 4 below and will serve as the core set-up within WaterNet Phase V. The WaterNet Secretariat is however anticipated to be more financially sustainable by diversifying funding and increasing network member institutions involvement by the end of Phase V.

- WaterNet Trust - Overall governing body consisting of members in good standing who are represented in the AGM. The Trust elects the Board of Trustees, approves work plans and budgets, approves progress reports, appoints an Audit firm accountable to the Trust and the Trust in turn to the Cooperating Partners, and employs Secretariat staff.
- Board of Trustees - Accountable to the AGM, has fiduciary responsibilities, represents the Trust in all legal matters e.g. grant agreements and service contracts and also invites Supporting members to the Board meetings.
- Supporting Members - Provide an advisory and consultative role in terms of governance and within activities.
- Management Board - The Board of Trustees and Supporting Members together constitute the Management Board.
- Cooperating Partners - Provide the financial resources for WaterNet activities.
- Executive Management/Secretariat - Executes and coordinates WaterNet activities through the members, employed by the Trust, headed by an Executive Manager with full-time support staff with the Accounting firm carrying out taxation management services.

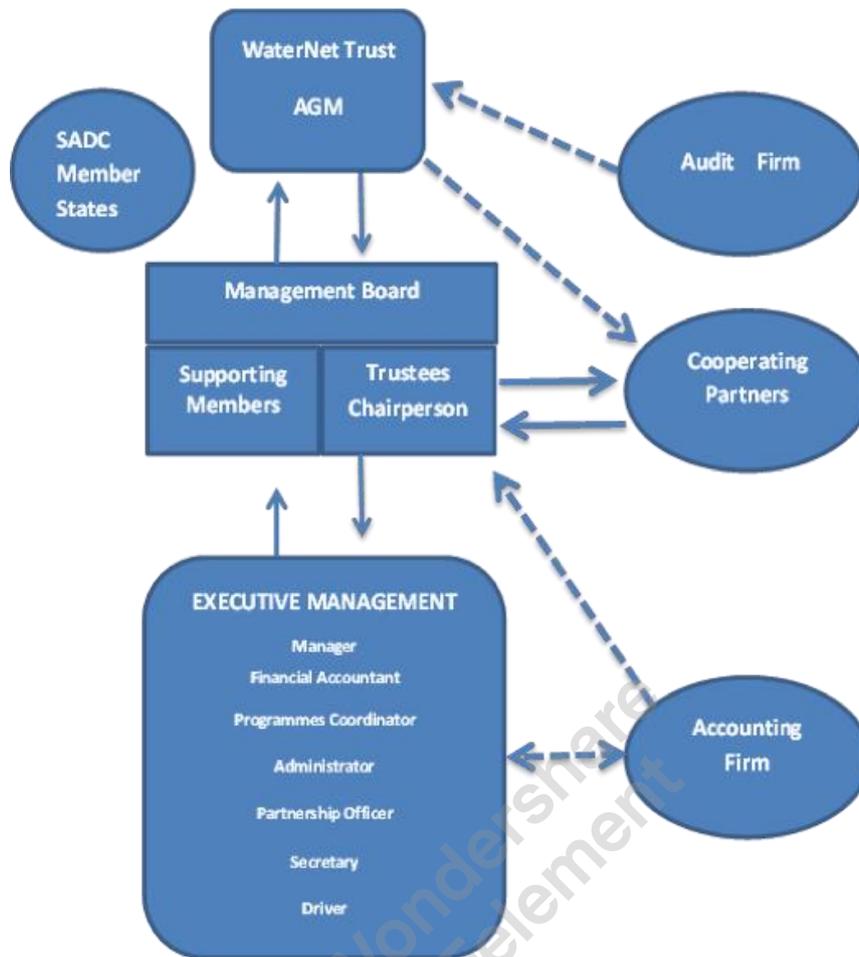


Figure 4 WaterNet Phase V governance and management structure

SADC provides the institutional framework for WaterNet as its Subsidiary Institution. The political will to continue WaterNet's work is there as it has been expressed at meetings of SADC Ministers of Water. The funding environment has been dominated to date by external donors and the funding has been gradually reducing through the years. Despite the political support, commitments by SADC Ministers of Water for their governments to provide funding for WaterNet facilitated capacity development, in particular MSc fellowships have not yet yielded tangible results. The latest review has suggested that WaterNet's governance arrangements are not optimally conducive to efficiency; increased involvement of Board members will therefore be conducted as WaterNet phase V is implemented. The selection Criteria, the terms of references of Management Board committees will be redefined and new committees established in order to provide more effectiveness toward steering strategic direction to the network. The Secretariat is very lean and does not have the critical mass needed to perform all of WaterNet's functions efficiently, also because they are busy with project implementation. Without resources to support the necessary critical mass at the Secretariat, the lean structure will always yield sub-optimal results. There is the need for WaterNet to relook into his operations and governance for 2022-2026. Hence the overarching goal for Management and governance under the WaterNet Phase V strategy is "Increased ownership of WaterNet members and SADC member states in the running and operations of the WaterNet Secretariat and fund raising"

The following three specific objectives for the Management and Governance are expected to be fulfilled in support of the implementation of the three thematic pillars under WaterNet Phase V:

- To promote collaboration and optimise on operational and staff costs
- To increase and diversify resource mobilisation.
- To reduce organisational and management risks for the network

4.4.2 Finances

Over the last three years (2017-2019), the total expenditure on Governance and Management were between 341,000 and 464,000 Euro per year. About one third of the costs go to governance (main costs are attributed to The Board of Trustees and Accounting and Legal fees) and two thirds (2/3) are on management (with the main costs going towards salaries of the secretariat and office costs) (Figure 5).

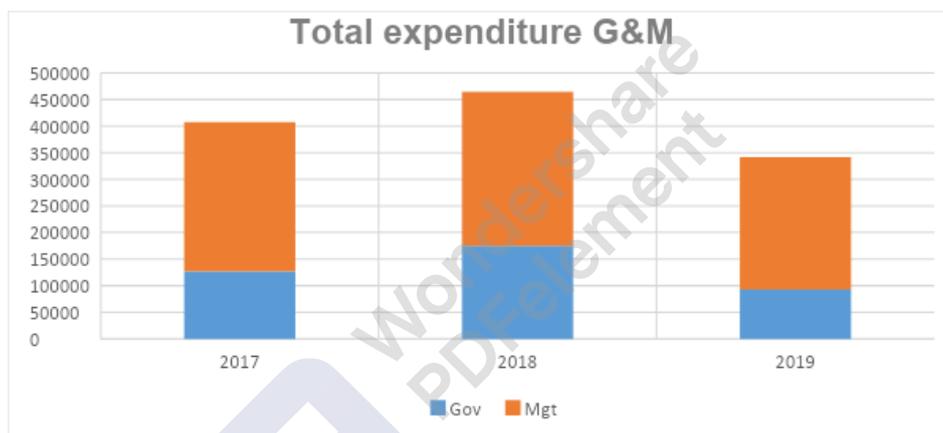


Figure 5 Total expenditure: Governance and Management

The income for these cost items is largely borne from one donor (DGIS) contribution (on average 74%). With declining income from DGIS and declined income from other sources, the expenditures on these cost items have also over the years gone down (Figure 6).

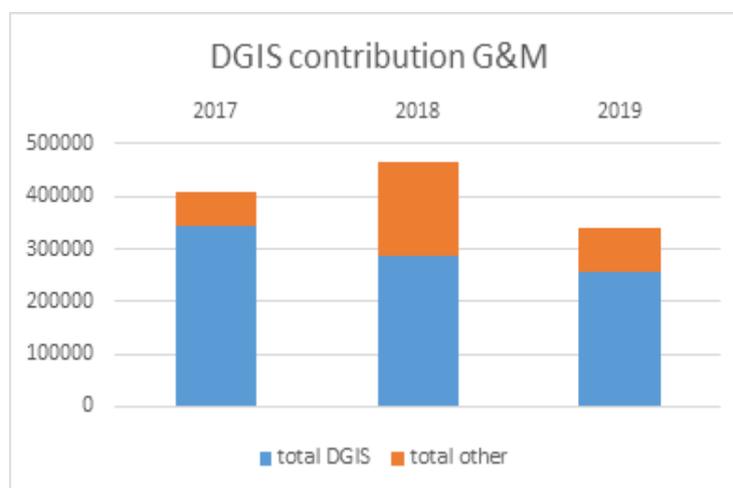


Figure 6 DGIS and other financial contributions towards Governance and Management

A number of cost reduction strategies have been implemented, and as it currently stands it is not expected to be able to reduce costs much further. The COVID situation has shown the potential to organise virtual board meetings, which in previous years costed 15,000 Euro on travel and accommodation alone (May meetings). Following a 'business as usual' strategy would require a minimum of 300,000 Euro/year for these cost items.

Currently roughly about 40% of the DGIS funds goes towards the Governance and management budget lines. DGIS has already indicated that continuation of DGIS funds is highly uncertain after Phase IV and the high dependence of the running of the secretariat on these funds create a risky situation.

Under phase V, Governance and Management costs will be catered for through administrative fees which will not go below 15% when possible. Systematic staff time compensation will be booked against all projects implemented at WaterNet, DGIS included, to finance the Secretariat running costs and wages.

4.4.3 Outcome

These will result in the following outcomes, increased effectiveness in providing strategic directions to the network, diversification in resource mobilisation, optimization of operational and staff costs, the increased ownership of the network, the reduced work load and better welfare of core WaterNet staff, better understanding and mitigation of organisational and operational risks.

The proposed strategic actions, their outputs and the anticipated outcomes are presented in the project Logic framework under section 6.

5. Monitoring and evaluation

The monitoring and evaluation of the impact and outcomes of WaterNet programmes will continue to be carried out by the Executive Management, focusing on the set objectives, anticipated outcomes, enumerating the specific actions and their outputs; as presented in the M&E Table 3 below. For each focus area, the specific activities will be evaluated against the detailed workplan as presented under Section 6 below and adjustments will be made against the programme as required. A key milestone activity will be the Phase V Midterm evaluation which will be undertaken to assess the level of achievement of the anticipated programmatic outcomes as opposed to measuring progress in reaching the individual activity outputs. The Executive Management will continue to prepare and present specific project reports as well as biannual progress technical and financial reports for the whole WaterNet programme. A key element is to ensure that funds will be secured in time to finance the implementation of the strategy.

Management board meetings will be held every six months, where the progress of the different activities is reported and discussed, the board members will be updated regularly in between the board meetings of relevant developments. In certain cases adjustments will be made in the workplan and activities, discussed and agreed by the board. It is important that the Executive management team working closely with the Committees of the Management Board.

Details of the Monitoring and Evaluation for WaterNet Strategy V are presented in Table 3 below:

Summary:

Table 3: Summary of Monitoring of WaterNet goals under Phase V

Objective	Monitored by
1. Utilising and expanding regional capacity for degree and non-degree education in IWRM	Curriculum Review and Quality Control Committee
2. Addressing relevant challenges and providing relevant solutions through a dedicated collaborative research agenda aiming for impact	Research Committee
3. To become the go-to source of expertise and knowledge on IWRM in Southern and Eastern Africa	Alumni Committee and Membership Committee
4. Increased ownership of WaterNet members and SADC member states in the running and operations of the WaterNet Secretariat and fund raising	Human Resource Committee and Membership Committee

5.1 Project Logic Framework

1. Education and professional training

Overarching goal “Utilising and expanding regional capacity for degree and non-degree education in IWRM “

Table 4 Logic Framework: Education and Professional training

Objectives	Activities	Outputs	Outcomes	Indicators	Means of Verifications
Increased sustainability of the Masters programme in IWRM while maintaining regional flavour	Support universities to develop standalone Masters programme in IWRM in <ul style="list-style-type: none"> - curriculum development, - development of new specialisations, - integration of new topics, - accreditation procedures; - linking up with regional expertise (staff exchange) 	<ul style="list-style-type: none"> - offered Masters programme in IWRM (of which 2 in French or Portuguese language) - procedures developed and implemented for WaterNet certification of Masters programmes 	<ul style="list-style-type: none"> More graduates Lower cost per student More fellowships sourced outside of WaterNet mainstream sources of income 	<ul style="list-style-type: none"> x number of institutions offering the IWRM (5) Number of certification obtained (2) x number of Masters programme that acknowledged WaterNet contribution (5) x number of regional activities implemented for post graduates students (10) % of reduction in cost per students (10%) x Number of graduated students (150) -x number of webinars, online trainings implemented across the network using the online platform (50) 	<ul style="list-style-type: none"> WaterNet Annual report Management Board report Project report Proceedings from training activities Annual reports from WaterNet members Graduation proceedings from WaterNet members
	Establish WaterNet certificate/stamp for IWRM programmes under WaterNet flag	<ul style="list-style-type: none"> - Acknowledged WaterNet contributions toward IWRM Masters programmes 			
	Implement regional integration activities such as <ul style="list-style-type: none"> - summer courses - webinars 	<ul style="list-style-type: none"> - Implemented regional activities implemented per year for Post-Graduate students - Reduced in cost per student 			
	Create online platform to support regional integration (webinars, online training, sharing lecturing materials)	<ul style="list-style-type: none"> - Graduation of post-graduate students -Implemented webinars, online trainings across the network using the online platform 			

Increased utilisation of network capacity to implement short professional training programme	Implement short courses under SADC's human capacity building strategy for the water sector	-organised short professional training courses organised	Self sustaining training programme Demand driven programme Network capacity to deliver trainings	-x number of short professional training courses organised (50)	WaterNet Annual report Management Board report Project report Training event report Curriculum outline
	Source expertise for short professional trainings within the network (90%)	- Engaged experts and WaterNet members in short professional training		- x number of participants (1500)	
	Regularly organise webinars on topical issues	- organised webinars o		- x number of experts engaged in short professional training (50)	
	Translate topics of short professional trainings into Master curriculum	- Translated of topics into education materials in the Masters programmes		- % of experts sourced from WaterNet members (60%)	
				- x numbers of webinars organised (20)	
				- x number of topics translated into education materials in the Masters programmes (5)	

2. Research and innovation

Overarching goal “Addressing relevant challenges and providing relevant solutions through a dedicated collaborative research agenda aiming for impact”

Table 5 Logic Framework: Research and Innovation

Objectives	Activities	Outputs	Outcomes	Indicators	Means of verification
Increasing relevance of WaterNet’s research agenda to address challenges as defined in SADC Water research agenda and SDGs	Align research programmes to SADC Water Research Agenda and SDGs	<ul style="list-style-type: none"> - Acquired of new collaborative research programmes - Addressed SADC Water Research agenda or SDGs new collaborative research programmes addressing - Acquired funding for research programme - increased involvement of WaterNet members in research programmes -Embedded “WaterNet” MSc fellowships into research programmes 	Provision of regional water solutions and research based evidence for the SADC water sector	<ul style="list-style-type: none"> - X number of new collaborative research programmes acquired (10) - X% of new collaborative research programmes addressing SADC Water Research agenda or SDGs (80%) - X MEuros acquired for research programme (2M) - X % increase of WaterNet members involved in research programmes (20%) - X number of “WaterNet” MSc fellowships acquired through research programmes (20) - X number of “WaterNet” PhD fellowships acquired 	Signed project grants WaterNet annual report Management Board report project report WaterNet publications
	Incorporate a broader base of the WaterNet membership in research programmes				
	Implement research training programme				

				<p>through research programmes (10)</p> <ul style="list-style-type: none"> - X number of joint publications (co-authors of 3 or more WaterNet members) (20) - X number of publications involving public or private sector members (20) 	
Increasing impact of research	Develop Theory of Change for each research programme	<ul style="list-style-type: none"> - Produced of TOC for research programmes - Presented of seminars or workshops (incl online webinars) organised presenting research results 	Increased uptake of research for development results for the water sector Research results influencing policy, RSAP, projects at community level	<ul style="list-style-type: none"> - X% of research programmes having a ToC (75%) - Number seminars or workshops (incl online webinars) organised presenting research results Number of policy briefs and social innovation fact sheets. (75%) Number of referral during RSAP V reporting (10) Number of training with incorporated research results (10) Number of educational materials and modules using research outputs (10) 	<p>Project proposals</p> <p>Training proceedings</p> <p>policy brief and Social innovation fact sheets</p> <p>RSAP V report</p>
	Translate research into capacity building materials	<ul style="list-style-type: none"> - Produced of policy briefs and social innovation fact sheets - Referred WaterNet research into of RSAP V implementation report - Incorporated research results into short professional trainings - utilised research outputs into Master modules and educational materials 			

3. Outreach and knowledge management

Overarching goal “to become the go-to source for expertise and knowledge on IWRM in Southern and Eastern Africa”

Table 6 Logic Framework: Outreach and Knowledge Management

Objectives	Activities	Outputs	Outcomes	Indicators	Means of verifications
Increasing (online) visibility and networking	Organise annual WaterNet symposia	- Organised annual symposia online- X number of special sessions organized for public and private sector participants	Increased presence offline and online of WaterNet activities	50% of Symposium are organized online - X number of webinars organized by WaterNet (20) - X number of webinars organized by other organisations where Waternet is invited(20) - X% of webinars focusing on public and private sector participants (20) - X number of posts (facebook, twitter, email) per year - X number of newsletters published (2 per year) - x number of matchmaking activities organised (10)	WaterNet/LOC symposium report
	Organise and contribute to online content	- Organised webinars by WaterNet - WaterNet invited to webinars organized by other organisations -Organised Webinars focussing on public and private sectors			Training and webinar proceedings
	Implement adequately communication strategy	- Implemented WaterNet communication strategy - Social media presence (facebook, twitter, email) per year - published newsletters (4 per year)			social media report website statistics
	Develop and implement matchmaking strategy	- Developed Matchmaking strategy - database developed			Database portal strategy document

				Number of database developed (2)	
Increasing access to knowledge	Develop and implement knowledge management strategy	-developed and implemented knowledge management strategy - knowledge products stored and easily accessed through searchable database - X number of knowledge products developed for public and private sector	Increased knowledge sharing and brokerage of WaterNet educational, trainings and research products and services	number of developed and implemented knowledge management strategy (1) number of searchable database(2)	strategy document

4. Governance and Management

Overarching goal “Increased ownership of WaterNet members and SADC member states in the running and operations of the WaterNet Secretariat and fund raising”

Table 7 Logic Framework: Governance and Management

Objectives	Activities	Output	Outcomes	Indicators	Means of Verifications
<i>Promote collaboration and optimise on operational and staff costs</i>	Implement a lean horizontal management structure with staff linked to projects. Align staff with a succinct workload formula to ensure coherent reporting. Explore affiliation options with Universities/Research Institutions, which can absorb operational costs, and benefit from the WaterNet Brand	Established Affiliation/ collaboration agreements Funded activities by network members X number of activities funded by projects	Operational and staff costs optimised Increase ownership of the network Reduced workload of core staff Happy secretariat staff	X number of Affiliation/ collaboration agreements (5) X number of funded activities by network members (10) X number of activities funded by projects (20)	WaterNet Annual report members reports Project reports project proposals Strategy risk document Management Board reports

	Reduce governance costs by utilising online opportunities and experience	<ul style="list-style-type: none"> - Held online board meetings - Held online AGMs 	governance cost reduced by x%	<ul style="list-style-type: none"> % of Board meetings held online (50%) % of AGMs held online (50%) 	
<i>To Reduce organisational and management risks for the network</i>	Develop and implement a risk management strategy for the organisation as a process of identification, analysis and acceptance or mitigation of uncertainty to the organisation's capital and earnings.	developed and implemented WaterNet Risk Management Strategy (incl, key risks and how these are addressed within the organisation)	Increased understanding of organisational risks and a clear approach to address them	number of developed and implemented WaterNet risk management strategy options (1)	
<i>Increase and diversify resource mobilisation</i>	Develop and implement a resource mobilisation strategy Identify new avenues of resource mobilisation incl large global foundations such as GEF and others Personal networking and active advocacy singularly or jointly with other partners e.g. Cap-Net as part of funding diversification.	<ul style="list-style-type: none"> Mobilised resources for the implementation of WaterNet activities Implemented MoUs and Collaboration agreements Broadened membership 	Increased opportunities for mobilising resources	<ul style="list-style-type: none"> - X number of proposals submitted to new donors (10) - X MEuro sourced (3M) - X% sourced from new donors (40%) - X% of project involving public or private sector partners (50%) -X Number of MOU (5) X Number of new members (10) 	<ul style="list-style-type: none"> WaterNet annual report Project proposals Project reports Signed MOUs and collaboration agreements

Table 9 Workplan: Research and Innovation

Objectives	Activities	2022					2023					2024					2025					2026					Responsibilities																				
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J		F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
Goal 2: Addressing relevant challenges and providing relevant solutions through a dedicated collaborative research agenda aiming for impact																																															
Increasing relevance of WaterNet's research agenda to address challenges as defined in SADC Water research agenda and SDGs	Align research programmes to SADC Water Research Agenda and SDGs	X					X					X				X					X				X					X					Members, WaterNet Research programme												
	Incorporate a broader base of the WaterNet membership in research programmes																																			WaterNet Research programme, Members											
	Implement research training programme	X					X					X				X						X				X					X				Members, WaterNet Research programme												
Increasing impact of research	Develop ToC for each research programme																																		Member institutions, WaterNet research programme.												
	Translate research into capacity building materials	X					X					X				X					X				X					X				Member institutions, WaterNet research programme, Regional and international funding agencies.													

Table 10 Workplan: Knowledge Management and Outreach

Objectives	Activities	2022					2023					2024					2025					2026					Responsibilities								
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J		F	M	A	M	J	J	A	S
Goal 3: to become the go-to source for expertise and knowledge on IWRM in Southern and Eastern Africa																																			
Increasing (online) visibility and networking	Organise annual WaterNet symposia																																	WaterNet Secretariat, LOC from Member institutions	
	Organise and contribute to online content	X					X					X				X					X				X					X				Members, WaterNet Secretariat	
	Implement adequately communication strategy	X					X					X				X					X				X					X				Members, WaterNet Alumni Association, WaterNet Secretariat	
	Develop and implement matchmaking strategy																																		Collaborating Partners, students, Alumni, partner universities, subject matter experts, WaterNet Ambassadors
Increasing access to knowledge	Develop and implement knowledge management strategy	X					X					X				X					X				X					X				Members, WaterNet Secretariat	

7. Resource Mobilisation and Sustainability

Developing fundraising strategies especially for private and public sector organisations would contribute to sustainability of the Network. Although the definition of what constitutes private sector and the attributes of private sector organisations vary greatly (a grey area), a broad definition assumes, “The private sector is that part of the economy, sometimes referred to as the citizen sector, which is run by private individuals or groups, usually as a means of enterprise for profit”. Four strands of cooperation and partnership with the private sector needs to be explored by WaterNet viz.:

- a) Private sector as recipient/beneficiary of WaterNet capacity development
- b) Private sector as a financing partner
- c) Private sector as a partner in capacity development in sustainable water management
- d) Private sector as a driver of demand for capacity development products

For the last few decades, increasing globalization of the world economy and waves of deregulation and privatization have facilitated the emergence and increased the power of private actors, particularly of large transnational corporations. However, it is not only “big business” but also “big philanthropy” that has an increasing influence in global (development) policy, particularly large philanthropic foundations. They have become influential actors in international policy debates, including, most importantly, how to address poverty eradication, sustainable development, climate change and the protection of human rights. The scope of their influence in both past and present discourse and decision-making processes is fully equal to and in some cases goes beyond that of other private actors. Through the sheer size of their grant-making, personal networking and active advocacy, large global foundations, most notably the Rockefeller Foundation and the Bill & Melinda Gates Foundation, have played an increasingly active role in shaping the agenda-setting and funding priorities of international organisations and governments. So far, there has been a fairly willing belief among governments and international organisations in the positive role of philanthropy in global development. WaterNet needs to explore this avenue singularly in detail or jointly with other partners e.g. GWP, WRC, Cap-Net as part of funding diversification.

7.1 Current Budget

The budget for Strategy IV was based on a basket funding approach, which did not lead to the anticipated financial sustainability and independence. Though efforts were made to secure funding from African and International partners, the approach amplified the challenges of adequate human resources in the Secretariat. In the Strategy IV budget, an annual decrease in the contribution of the main funder – DGIS was projected at 52%, 36%, 29%, 23% and 17% for 2017 to 2021 respectively.

The WaterNet is commended for good financial management practices, however, the need for streamlining of spending lines is still evident. A decline in sponsorships for capacity development programmes should also motivate the Secretariat to re-imagine the donor approach.

Several models will be considered for financial sustainability for Phase V as illustrated below:

7.2 Funding and Sustainability model

7.2.1 The Funding Model and Benchmarking with similar institutions/organisations/ networks WaterNet should consider using a combination of funding models (direct and indirect) for effective implementation of strategy V, and sustainability of the Secretariat. The goals set for phase V will require a mixed funding model (Figure 7); in this case – a combination of Beneficiary Builder Model, Big Bettor Model and Policy Innovator Model.

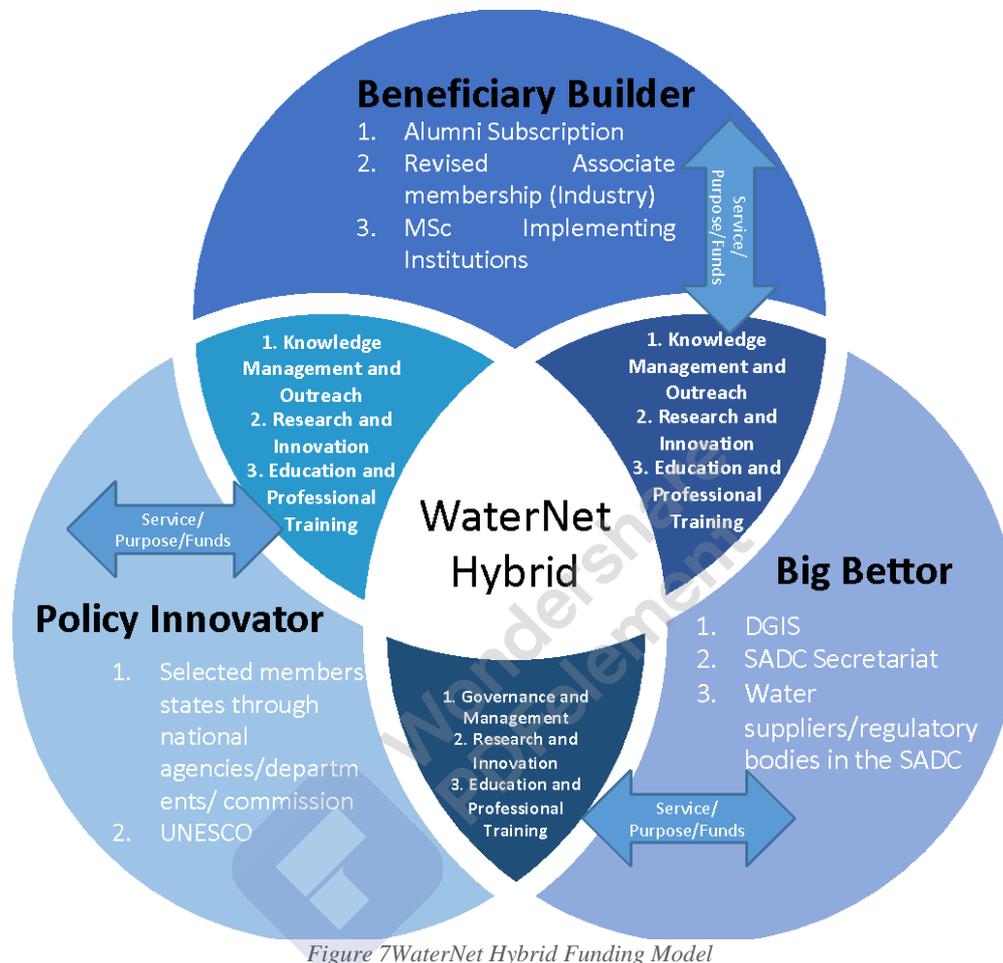


Figure 7 WaterNet Hybrid Funding Model

Public and private sector corporate bodies that are interested in exercising corporate social responsibility and taking advantage of business opportunities in the water sector can be sources of funding. To this end partnerships, in the form of research and consultancy, can be created with corporate entities that directly use water such as food and beverages, mining, energy and agribusiness.

Beneficiary Builder Model

Membership/subscription fees alone cannot sustain the Secretariat or implementation of water programmes. Therefore, building long-term relationships with people and organisations that have benefited from the service to provide supplemental support should help improve sustainability of the programmes. The Beneficiary Builder Model is normally used by NGO's that are reimbursed for services they provide to specific individuals, but rely on people who have benefited in the past from these services for additional donations. The model is also used by most universities. In the case of WaterNet, the model can be implemented by introducing the associate membership category for industry (also paying more than current member institutions). Composition of the current Associate

Membership category can be changed from Research Institutes to include water-intensive industry e.g. Agriculture businesses, Breweries and other manufacturing sector. The services/benefits available to the “new Associate Members” should be packaged and communicated to the potential members. The Research Institutes e.g. Council on Scientific and Industrial Research (CSIR) could be moved to full member institutions because they also play an important role in water research and training.

Big Bettor Model

In the Big Bettor model, the primary funder is also a founder who wants to tackle an issue that is deeply personal to him or her. Although Big Bettors often launch with significant financial backing already secured, allowing them to grow large quickly, there are other instances when an existing organisation gets the support of a major donor who decides to fund a new and important approach to solving a problem. In the case of WaterNet, funding for the new and important to solving a problem can take the form of research grants or fellowships for capacity programmes.

While acknowledging the initiative and significant contribution by the DGIS, WaterNet should bring the SADC Secretariat on-board as the next ‘big bettor’ to sustain the Secretariat by committing to salaries and office budget. The SADC should be approached with a proposal to introduce new/innovative approaches to solving the water problems in the region. The proposal can also be strengthened by building partnerships and working on collaborative projects/programmes with SADC member states and water suppliers/regulatory bodies in the SADC. The model has been implemented successfully by medical and environmental research institutes worldwide including Stanley Medical Research Institute, and Conservation International (CI).

Policy Innovator Model

In the Policy Innovator Model, the not-for-profit organisation develops novel methods to address crucial issues that are not clearly compatible with existing government funding programs. They present alternate methods to the government as more effective and less expensive than existing programmes, and request funding for implementation.

Thus, WaterNet should consider the Policy Innovator funding model to sustain water education and outreach programmes.

However, it should be noted that successful implementation of the model depends on WaterNet Secretariat working with member institutions to present itself as capable of providing innovative approaches to ensure water security in the different SADC member states. The Network should be willing and able to cultivate strong relationships with government decision makers who will advocate change. This might require using the SADC Subsidiary status to get an audience of a few/selected members states through national agencies/departments including Water research Commission (WRC) in South Africa, Namibia Water Corporation (NamWater) in Namibia, and others. The Network may also use information in Annexure 1 to inform the types of funding proposals to be prepared proactively for SADC.

7.2.2 Direct and Indirect Sources of Funding to be used in the proposed model

Stakeholder mapping, prioritising and needs analysis will provide WaterNet with the intelligence on the stakeholder knowledge products and services requirements and further guide the development and repackaging of products and improve and innovative ways of structuring and implementing its outreach activities.

Membership Categories and fees structures

WaterNet will proactively seek partners with mutual interest in contributing to addressing the African water sector challenges through the promotion of IWRM. The partnerships to be established during this phase should have expertise, proven track record and resources to offer one or more of the following value propositions to WaterNet:

- Knowledge generation – generate new knowledge and share existing knowledge products and solutions that could be repurposed, repackaged and scaled up for the benefit of the WaterNet stakeholders.
- Communication and marketing – contribute to enhancing the WaterNet brand value, visibility and ensuring that WaterNet’s activities and impact is communicated in an appropriate manner that will improve awareness, understanding of IWRM and uptake of products and services in the African continent and internationally.
- Financial support – contribute direct or indirect financial resources (in-kind or cash) towards the development of knowledge products, improving the infrastructure and implementation of WaterNet outreach activities.

Proposal Development and Management Fees

Implementation partners and alumni – contribute expertise, knowledge, financial resources and infrastructure to the conceptualisation, planning and implementation of the existing and new innovative WaterNet outreach activities.

Membership fees per size of institution and Special/associate membership category (paying more than ordinary members) for industry would also add to the financial sources.

Income generation from WaterNet knowledge products

WaterNet has the potential to introduce an IWRM Journal as a repository of its consolidated and synthesised peer reviewed researches generated from collaborative projects, MSc and PhD research outputs. This knowledge would be acquired by interested stakeholders at a fee. The journal would revamp communication of the new and relevant knowledge that is constantly generated by WaterNet. Given the influence of the institution in the Southern and East Africa region as a Centre of Excellence, the Journal would raise the profile of WaterNet as the main reference “think tank” for water and water related issues in the SADC region and beyond.

Establishing a journal and charging Journal Fees, as well as hosting a database that can be freely available to all, but ask for donations to sustain the service would also add to generating funds from the knowledge products.

Partnerships with member institutions

WaterNet already has an extensive list of partners contributing to the implementation of activities aimed at achieving the pillars of the WaterNet business i.e. academic education, professional training, collaborative research and outreach. Partnerships with individual institutions, organisations and other networks and associations with mutual interests will leverage and provide access to the existing knowledge and shared resources in the development of the knowledge products and the implementation of the outreach activities. Building on each other’s strength will not only add value and benefit the WaterNet’s stakeholders but the whole sector as it will facilitate complementarity and better coordination of efforts in addressing the water challenges in the

WaterNet operational geographic regions. Collaboration and partnership will also improve WaterNet and partners' performance, introduce new and innovative ways of doing business leading to sustainable growth, competitiveness, reduced and/or shared risks.

In addition to its existing outreach and advocacy activities, WaterNet should also appoint brand Ambassadors who will help to increase the WaterNet profile but also be at the forefront of promoting understanding and inspire informed conversations on WaterNet's programmes and their contribution to the attainment of IWRM.

Joint Research Chairs and Joint/consortia funding applications can be accommodated in this category. Joint Research Chairs are normally established and co-funded by two or more partner organisations/institutions. The Joint Chairs are effective in producing more creative research outcomes by establishing common research themes with private companies, universities, and public research institutes and promoting research cooperatively while exchanging knowledge from a standpoint of mutual equality.

Alumni and 'convocation'

As a starting point, the database of all the WaterNet alumni has to be fully established and be vibrant and operational. Under the WaterNet umbrella, there is potential to then create a strong pool of experts for specific fields where WaterNet wants to intervene once the alumni database exists. These experts who can be Alumni or other WaterNet partners can be selected on the basis of their experience in the many aspects of water resources management and their familiarity with regional and international priority programmes. Together with WaterNet, these experts can respond to consulting jobs and also offer technical advice and solutions where needed.

Depending on their availability and an agreed remuneration package, these experts can serve as resource persons for WaterNet's programmes and also dedicate expert time to carry out consulting services to provide solutions to the water sector and especially offer professional services to the private sector. An agreement can be drawn regarding the percentage sharing of the income generated from the consulting towards the personnel who did the work and the WaterNet programme under whose umbrella they serve. Since there are strong cross-country synergies in water sector activities this pool of experts has the potential to end up serving clients in different parts of the region.

This category of funding source can be used to develop and implement Alumni membership fees, Co-consulting fees and Special Fundraising events including sports and recreation related events (Dinner, Golf, etc.).

Partnerships with Industry

It is also important not to only consider financial leverage as cash transferred to WaterNet or towards activities, but also as in-kind support such as, access to knowledge, expertise, tools, services and infrastructure at no cost to WaterNet. This is equally important and would add enormous value to WaterNet business, increase cost and time efficiency and improve the overall way of doing business. Co-funding and in-kind financing partnerships would also reduce duplication of systemic effort, deter unnecessary competition and promote a coordinated way of addressing the water challenges and building individual and institutional capacity in the continent.

Funding for industry-specific solutions developed by WaterNet

Scholarships for WaterNet IWRM programme and other water researchers within member

institutions. Joint funding for innovation/ product development from research by students/researchers within member institutions would also contribute to the funding sources.

Partnerships with Member states

Demand driven knowledge products and services will ensure WaterNet's value add, improve uptake by the intended beneficiaries and enhance WaterNet impact on its members and stakeholders' businesses and operations. However, WaterNet will not be able to develop all the required knowledge products and also implement value adding outreach activity on its own without collaboration with strategic and key partners operating in the region.

Regulatory partnerships and services

The Network must leverage the partnerships with several national water suppliers and regulatory bodies such as the Water Research Commission of South Africa (WRC).



8. Phase V Budget

The proposed budget is outlined in Table 12.

Table 12 Proposed budget for Phase V (2022-2026)

(kEuro)	2022	2023	2024	2025	2026	Total Phase V	DGIS	Other	Total Phase IV
Governance and Management = 2,210									2,397
Governance	80	80	80	80	80	400	139	261	650
Management	320	320	320	320	320	1,600	375	1,225	1380
Programme review	0	0	30	0	30	60		60	100
Contingencies	30	30	30	30	30	150		150	267
Education and Professional Training = 2,925									4,635
Scientific backstopping	30	30	30	30	30	150			250
MSc Support	150	150	150	150	150	750	250	500	3020
Curriculum development	35	35	35	35	35	175	89	86	175
Professional training	360	360	360	360	360	1,800	100	1,700	1040
Language	10	10	10	10	10	50		50	150
Engaged Research and Innovation = 1,540									1,145
Post-doctoral programme	48	48	48	48	48	240		240	0
PhD programme	60	60	60	60	60	300		300	175
Research activities	200	200	200	200	200	1,000		1,000	970
Knowledge Management and Impact = 505									450
Alumni Association	10	10	10	10	10	50	42	8	50
Symposium	81	81	81	81	81	405	70	335	350
Publications	10	10	10	10	10	50		50	50
Total	1,424	1,424	1,454	1,424	1,454	7,180	1,065	5,965	8627

There is a 17% reduction in the nominal total budget between Phase IV and Phase V. The WaterNet Phase V has a reduction of 37% in the education and short professional training due to the new model of the Masters programme that will be implemented, a reduction of 8 % in Governance and management Costs, an increase of 26% and 11% respectively in the Research and knowledge management budget lines.

The Education and Professional Training landscape has changed globally and the Phase V strategy brings in the virtual offerings approach which reduces the costs associated with travel and subsistence previously borne for the MSc programme and the professional training, which also took up a big portion in the previous strategies. The budget for curriculum/programme reviews will also help to enhance quality, update the MSc modules and improve on relevance to the modern-day regional water challenges.

The “research activities” account for 64,9% of the Engaged Research and Innovation budget because implementation of the planned WaterNet Hybrid funding and sustainability model uses research and innovation related partnerships and engagements to sustain/generate income for the Secretariat and Network as a whole.

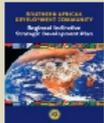
The budget for governance and management pillar is marginally lower when compared to Phase IV (8% lower than Phase IV Strategy). Furthermore to address the challenges encountered with implementation during Phase IV, the budget allocation for sustainability makes provision for ad hoc appointment of programme/funding concept/proposal development and 'train the trainer' system. The train the trainer approach will enable member institutions to participate in professional training and research programmes, thereby reducing the workload of the secretariat. The governance budget also includes virtual tools to enable efficiency in the management and the convening of Board meetings. The virtual tools will also be used to support the MSc offering for the implementing institutions that are experiencing challenges with online learning. These are some of the initiatives planned to reduce the "burden of implementation" which left the Secretariat "thinly spread" during phase IV.

The budget for the Management component includes a position of Fund Coordinator/Fundraiser/Grants Officer who will work with Secretariat to raise funds and ensure effective implementation of the WaterNet Funding and Sustainability Hybrid model.



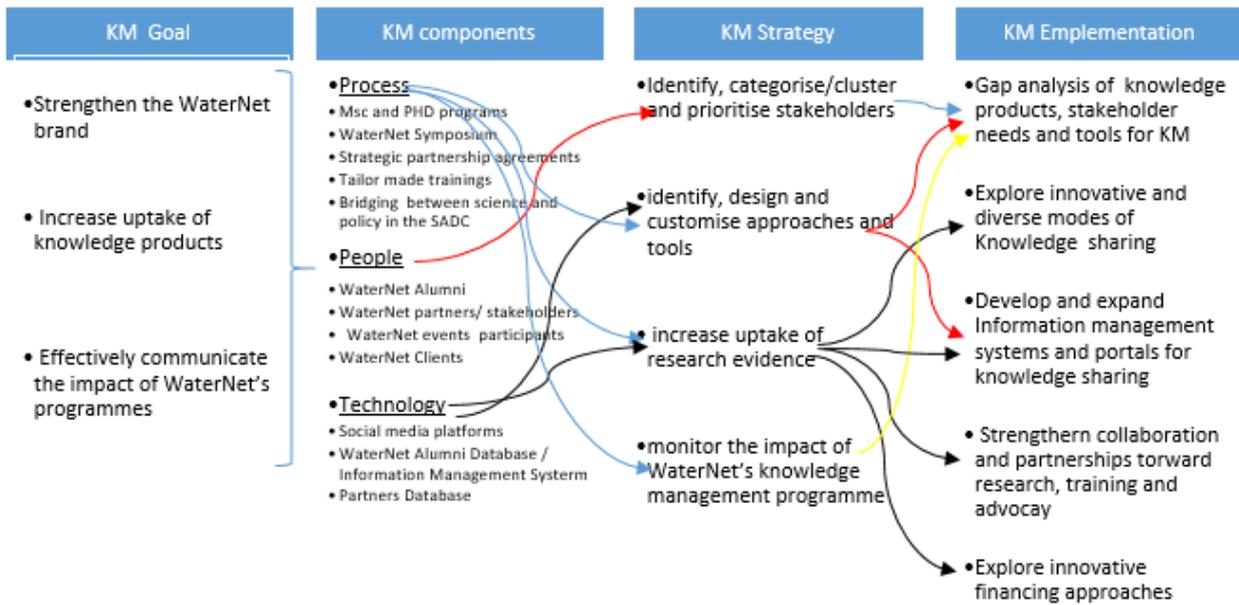
10. Annexes

Annexure 1 SADC response to the challenges: the regional priority framework

INSTRUMENT (SADC DOCUMENT)	BRIEF SUMMARY
<p>The SADC Declaration and Treaty</p> 	<p>The SADC Treaty, which governs the Regional activities of SADC and its Member States, came into force on 30 September 1993. This Treaty sets out the main objectives of SADC: <i>to achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa and support the socially disadvantaged through regional integration</i>. Built on democratic principles, and equitable and sustainable development.</p>
<p>The SADC Regional Indicative Strategic Development Plan (RISDP)</p>  	<p>The SADC Development framework - RISDP outlines the key interventions necessary to deepen regional integration & reduce poverty on a sustainable basis between 2005-2020. 1st formulated in March 2001, adopted and approved in August 2003, revised in 2007 & 2015 to ensure that the overarching objectives of poverty eradication and regional integration were more focused. The revised RISDP reassigned priority to:</p> <ol style="list-style-type: none"> Industrial development and market integration Infrastructure in support of regional integration Peace and security in the region Special programmes of regional dimension (incl health - thus nutrition/Food Security)
<p>The SADC Regional Infrastructure Development Master Plan (2012)</p>  	<p>The primary objective of the SADC RIDMP is to define the minimum but ultimate regional infrastructure development requirements & conditions to facilitate the implementation and realization of the key infrastructure in the water, energy, transport, tourism, meteorology & telecommunication sectors that will move forward the SADC agenda & enable SADC to realize its goal by year 2027. It aims to increase access levels to at least 75% by 2027 for both safe drinking water and sanitation and to increase land under irrigation from the current 7% of irrigable land to 20%. RIDMP promotes the implementation of multi-purpose infrastructure aimed at achieving objectives of water, food & energy security.</p>
<p>The SADC Industrialisation Strategy (2014)</p> 	<p>The SADC Industrialisation Strategy & Roadmap (2015-2063) highlights an agenda to <i>transform the region towards industrialisation through the beneficiation of resources in the region</i>. It is aimed at increasing the value addition of raw products from the region. The SADC region needs to make optimal use of its abundant natural resources, including minerals, land, water & energy. In SADC, <i>resource-based growth with the potential for value chain participation, mineral beneficiation and agribusiness expansion</i>. Managing water critical</p>
<p>The SADC Revised Protocol on Shared Watercourses (2000)</p>	<p>The overall objective of the SADC Revised Protocol on Shared Watercourses, which came into effect in 2003, is to <i>foster closer cooperation for judicious, sustainable and coordinated management, protection and utilisation of the 15 SADC shared watercourses, and advance the SADC agenda of regional integration, poverty alleviation and economic development</i>. RBO roles in facilitating development and investments for cross border infrastructure development is becoming more prominent in the region (see ORASECOM case in Annex 2)</p>
<p>The SADC Regional Water Policy 2005 & Strategy 2006.</p>  	<p>The SADC Regional Water Policy (RWP) aims at providing a <i>framework for sustainable, integrated & coordinated development, utilisation, protection & control of national & transboundary water resources in the Region</i>, for the promotion of socio-economic development & regional integration & the improvement in the quality of life of all people in the region. The Regional Water Strategy (RWS) provides a framework to implement the RWP.</p>
<p>The SADC Guidelines for Strengthening RBOs (2010)</p>	<p>Published in 2010, this <i>SADC RBO Guideline</i> covers four areas: establishment and development, environmental management, funding and financing and stakeholder participation.</p>
<p>Climate Change Adaptation in SADC: A Strategy for the Water Sector (2011)</p> 	<p>The overall goal of the SADC climate change adaptation strategy for the water sector (launched in Nov. 2011) is to improve climate resilience in SADC. Key priorities for CCA are outlined in 3 main areas: water governance, infrastructure development and water resources management, through coordinated WEF infrastructure development, improved management of transboundary natural resources, maximising on regional comparative advantages for agricultural production</p>
<p>The SADC Regional Strategic Action Plans I, II, III & IV</p> 	<p>The main objective of the RSAP I (1999 to 2004) was to create an enabling environment for joint management of regional water resources. RSAP II (2005-2010) emphasised <i>infrastructure development</i>. The goal of the RSAP III (2011-2015) was to strengthen the enabling environment for Regional water resources governance, management & development through IWRM at the regional, river basin, Member States & community levels. The key objective of RSAP IV (2016-20) is: <i>To unlock the potential for water (and related resources) to play its role as an engine and catalyst for socio-economic development through water infrastructure development and management to support water supply & sanitation, energy, food security, & security from water related disasters in view also of climate change & variability with the ultimate goal of contributing towards peace and stability, industrialisation, regional integration and poverty eradication</i>."</p>

Source: WaterNet MTR for Phase IV Strategy, 2019

Annexure 2 Schematic presentation of the knowledge management and outreach strategy



Wondershare
PDFelement

Annexure 3 Proposed activities, outputs and budget of WaterNet with DGIS support through DUPC3.

WaterNet has a strong tie with The Kingdom of Netherlands, it started as a project from the former UNESCO-IHE Delft (now-IHE Delft) in the Netherlands and grew up into an independent Trust registered in Botswana. WaterNet mission of human and institutional capacity building in Integrated Water Resources Management (IWRM) through education, short professional training courses, collaborative research and outreach will continue during phase V (2022-2026) with a focus on regional water solutions, systemic approaches and innovations in the face of climate change. WaterNet has been receiving over the past twenty years core support for network activities from the Dutch International Development Agency (DGIS). For the next phase (2022-2026), DGIS support toward WaterNet activities has been designed so that WaterNet can access funding through the programmatic Cooperation between the Ministry of Foreign affairs of the Kingdom of the Netherlands and IHE Delft called DUPC. The third Phase of DUPC (DUPC3) starting in October 2021 will run up to December 2027 for a total budget of Euro 46 Million. Below the activities, outputs and indicative budget that will be implemented by WaterNet in the framework of DUPC3 funds for a budget of Euro 1,215K over five years (2022-2026).

It is important to note that WaterNet budget under phase V (Chapter 8), the total Management budget line under DGIS represents all the staff time and the Governance budget line that caters for auditing, Management Board running costs, Legal and taxation services are catered for under overhead in the indicative budget below.

Component: Partnerships and joint learning

Outcome: increased, effective and inclusive collaboration and sharing of water knowledge and expertise between diverse kinds of organizations and individuals in the East and Southern African regions by harnessing complementary strengths of WaterNet member institutions.

Outputs and targets: network (WaterNet) activities (Master's programme-regional component, Joint professional training courses delivery, staff exchange) sustained (target: 3); regional network trainings conducted annually for National Masters students (target: 100); various kinds of partners involved and reached (target: 450+); network webinars organized (target: 25); amount of co-funding (cash, in-kind) generated for WaterNet under phase V target: 6+ million Euro).

Proposed budget:

Item	Rate	Units	Total (euro)
Staff time			
Executive Manager	580	204 days over 5years	118,320
Programmes			
Coordinator	438	204 days over 5years	89,352
Financial Accountant	357	102 days over 5 years	36,414
Travel (incl DSA)	Per student 1,800	100 (20 students/year)	180,000
Out-of-pocket costs	700	100 (20 students/year)	70,000
Institutional partnership	Lumpsum	1	120,000
Other: overhead (15%)	Lumpsum	1	92,113
Total:			706,199

Component: Research and advocacy

Outcome: Increase uptake of research evidence through timely and effective dissemination of research results to key stakeholders.

Outputs and targets: Contribution toward the Annual WaterNet/WARFSA/GWP-SA Symposium (Target 5), publications in the Elsevier journal Physics and Chemistry of the Earth (JPCE) (Target 200), Peer-to-peer learning and exchange (Target 20), high-level briefings at SADC level (Target:

10), Social media platforms presence (LinkedIn, Twitter, Facebook), multilingual website with events calendar (Target 3 languages), online streaming of WaterNet events (Target 10), Data repository (Target: 1 database of WaterNet Alumni, 1 skills inventory), Knowledge centres, (Target 5 hubs), Newsletters (Target 15)

Proposed budget:

Item	Rate	Units	Total (euro)
Staff time			
Executive Manager	580	60 days	34,800
Programmes	438	100 days	43,800
Coordinator			21,420
Financial Accountant	357	60 days	15,000
WaterNet Research Officer	100	150 days	16,000
WaterNet Intern	80	200 days	
Travel (incl DSA)	1,400	25	35,000
Out-of-pocket costs	1,000	25	25,000
Communication	<lumpsum>	1	121,000
Other: Overhead (15%)	lumpsum	1	46,803
		Total:	358,823



Annex 4: Attributes of a good knowledge management program



Source: www.dreamstime.com