

# WRC STRATEGY

## WRC tables new strategy aimed at ensuring water research remains real and relevant

*Science, technology and innovation are the cornerstone of sustainable water resource management. Having a water science sector that is adaptive to the needs of society and has the ability to create real and relevant solutions that can improve lives on the ground is at the heart of the Water Research Commission's (WRC's) new five-year strategy, which was recently tabled in Parliament.*



Established more than 50 years ago following a period of intense drought, the primary functions of the WRC are to promote coordination, cooperation and communication in the area of water research; establish water research needs and priorities; stimulate and fund water research according to priority; promote the effective transfer of information and technology; and enhance knowledge and capacity building in the water sector.

Water is recognised as a strategic resource, critical for basic human needs, and a driver for powering key economic sectors. The sustainable management of this scarce and finite resource underpins the well-being and prosperity of South Africa and its people. For the water science community, the mandate is to coordinate and promote research, development and innovation (RDI) and translate it into real solutions contributing towards addressing poverty, inequality and unemployment, while applying knowledge solutions to advance opportunities to enable economic growth, improve competitiveness and ensure

prosperity.

Under the leadership of the WRC Board, and CEO, Dr Jennifer Molwantwa, the WRC has adopted a particularly 'stakeholder-centric' strategy, "We look at all stakeholders; identify and consult with them. Once we understand what the challenges are for each stakeholder, we prioritise and incorporate them to form part of our research agenda. Once that is done, we are able to identify where we are lacking in each province of South Africa in terms of water management, water and sanitation service access to citizens, including areas where availability of water is constrained," she explains.

The WRC seeks partnerships and opportunities to collaborate with various key partners to implement the solutions emanating from its RDI programme. "These partnerships include dissemination and transfer of knowledge, co-funding of Research, Development and Innovation (RDI) projects to

co-create innovative water solutions, and supporting individual and institutional capacity building aimed at addressing the challenges of the water sector.”

It is explained as follows in the *WRC Strategic Plan for the 2025/26 to 2029/30 planning cycle*: “The WRC is accountable to stakeholders who have legitimate and reasonable expectations for the research that the WRC enables. An informed society relies heavily on impactful stakeholder engagement that integrate the perspectives of various stakeholders. Such processes not only build trust but also enhance the relevance and acceptance of interventions by aligning them with local needs and contexts. Impactful stakeholder engagements are a means for the WRC to close the gap between knowledge production, the use of research and innovation products, and influencing policy and broader water sector decision-making. The WRC is moving towards stakeholder engagement organised to promote science, technology and innovation for socio-economic impact, striking an appropriate balance between academic, instrumental, and conceptual impact.”

A practical example of this is the recent launch of the Arid Region Water Research Centre in collaboration with Sol Plaatje University aimed at addressing critical water security issues affecting the Northern Cape and in other regional and global arid regions.

WRC supported research projects are subjected to various intensive peer reviews from initiation to completion, with nominated proposal stage reviewers as well as project reference group members being experts representing various backgrounds and organisations. This review practice ensures that RDI projects and ensuing products remain relevant. The WRC further works through a wide network of communities of practice which is serviced by the WRC workshops, meetings and conferences.

The Commission’s research, development and innovation (RDI) activities are being executed through five thematic areas:

- **Water availability** – This thematic area seeks to ensure sustainable water availability across all scales and contexts, and to produce innovations that resolve water challenges and improve water management practices.
- **Water use** – This thematic area seeks to provide knowledge and innovation that ensures reliable, affordable and efficient water use services in the domestic, industrial, agricultural and mining areas to enhance the quality of life and contribute to economic growth and improved public and environmental health.
- **Water quality and health** – This thematic area drives integrated research and innovation to generate new knowledge, insights and data to inform the establishment of appropriate health-based targets and thresholds for different water uses; as well as for the development and deployment of appropriate and innovative water treatment and ecological infrastructure rehabilitation methods.
- **Water advisory support** – This thematic area seeks to support extension services and strengthen capacity-building instruments through support for centres of excellence, communities of practice, research chairs and advisory panels, in areas of importance at the local, district, provincial and national levels. It is expected that the WRC,

through this theme, will accelerate development support for technologies ready for demonstration and transfer, and provide support to grassroots innovators, startups and entrepreneurs.

- **Knowledge services** – Water RDI products reach target audiences with different levels of expertise. Among its main stakeholders the WRC counts academia, students, regulators and policy developers, water services and resource entities, the Department of Water and Sanitation and other associated government departments. An unremitting goal for the WRC is to improve the accessibility of knowledge generated through WRC support research to the stakeholders it is intended to reach, in a format that is acceptable and understandable for each stakeholder type.

“While we understand that water is cross-cutting, the WRC has opted for a themes-based approach to allow the organisation to organise its impact on two fronts: firstly, it allows for a more efficient administrative process, and secondly, it allows the Commission to highlight key identified priority areas,” notes WRC RDI Executive, Dr Stanley Liphadzi.

In addition to these themes, the WRC has placed strategic focus on projects aimed at strengthening South Africa’s resilience and adaptation to climate change. As pointed out by the Commission’s strategy, climate change is one of the most powerful global forces, with the ability to destabilise markets and curb economic growth. Weather patterns are increasingly becoming less favourable, and the frequency and severity of extreme events are increasing. “There is already abundant evidence indicating the vulnerability of society, water infrastructure and the economy to climate change,” pointed out Dr Liphadzi. “Our water security at local scale cannot be realised if there are no tools or products equipping communities to appropriately respond to climate change. Therefore, the WRC has to focus on increasing knowledge solutions which can contribute to enhancing and strengthening particularly climate sensitive sectors (such as agriculture) while reducing their vulnerability and improving adaptive capacity.”

The WRC RDI programme has identified a number of priority research areas to address the needs and priorities of South Africa and its water and sanitation sectors. These include, among others, addressing water service delivery, particularly at local government level; increasing water use efficiency across all water use sectors; enhancing South African water management’s resilience to global changes (including climate change, urbanisation and population growth, among others); enhancing digital transition for improved water and sanitation management, and pursuing new, emerging and fundamental RDI.

Water RDI remains essential to ensure a secure water future for all South Africans. By sustaining a small, but productive, water science sector in this country, the WRC is ensuring that it provides the knowledge and tools to understand and address society’s water-related challenges while developing the necessary innovative technologies and tools and practices that promote efficient water use, conservation and protection.

To access the WRC Strategic Plan, visit: <https://bit.ly/3SuTOR9>