

# THE CITIZEN'S REPORT

## 2023/4

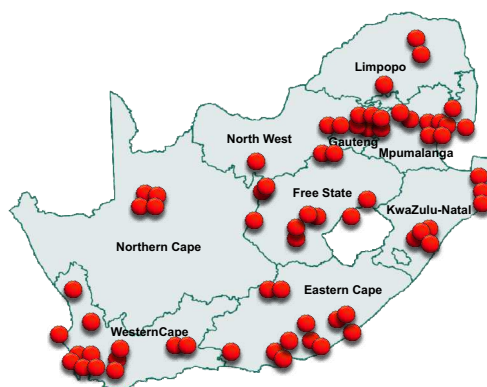
### OUR NATIONAL FOOTPRINT

#### VISION

Excellence in research and innovation for sustainable agricultural systems and economic development.

#### MISSION

The ARC is a premier science institution that conducts research, develops partnerships and human capital, to foster innovation for a sustainable agriculture sector.



The ARC was established in terms of the Agricultural Research Act, 1990 (Act No. 86 of 1990 as amended by Act No. 27 of 2001) and is the principal agricultural research institution in South Africa.

It is a Schedule 3A Public Entity in terms of the Public Finance Management Act, 1999 (Act No.1 of 1999 as amended by Act No. 29 of 1999).

The Council of the ARC embraces the highest standards of corporate governance, transparency, accountability, responsibility and integrity in respect of its oversight duties over the discharge of the ARC's legislative mandate. The Council is always cognisant, in exercising its oversight, of the policy ideals and imperatives envisioned in the National Development Plan Vision 2030, which recognises that South Africa needs to spend more time on research and development in general, but that the institutional setup needs to improve the link between innovation and business requirements.



Dr Litha Magingxa

### THE PRESIDENT AND CEO

*As we reflect on the Agricultural Research Council's achievements for the 2023/24 financial year, I am both humbled and proud of the progress we have made in advancing South Africa's*

*agricultural sector. This Citizens Report offers a transparent and comprehensive overview of how the ARC has fulfilled its mandate, delivering impactful research and innovation that supports farmers, protects livelihoods, and enhances food security.*

*Over the past year, the ARC has prioritised solutions to address some of the most pressing challenges in agriculture. Climate change continues to disrupt farming systems, and the ARC has responded by accelerating research into climate-resilient crops, soil health improvement, and water-efficient farming practices. Our*

*scientists and researchers have worked tirelessly to develop innovations that empower farmers to adapt and thrive in the face of uncertainty.*

*Supporting farmers remains at the heart of our mission. Through our outreach and farmer support programmes, we have reached thousands of smallholders and commercial farmers, equipping them with knowledge and tools to improve productivity. Of particular note is our commitment to gender equity and youth development in agriculture. We are cultivating the next generation of agricultural leaders by providing training, mentorship, and resources to women and young people.*

*The ARC has continued to forge partnerships that amplify our impact. Whether through our collaboration with the Department of Agriculture, Land Reform, and Rural Development (DALRRD), or our engagement with regional and global platforms such as FANRPAN, these partnerships ensure that our work aligns with national priorities and international best practices. Together, we are building resilient food systems that benefit all South Africans.*

*The journey has not been without challenges. From budgetary constraints to the growing threat of pests and diseases, the ARC has demonstrated resilience and agility. By leveraging innovation and optimising resources, we have maintained our ability to deliver high-quality research and services.*

*As we move forward, the ARC remains steadfast in its commitment to transforming agriculture for the benefit of all South Africans. We will focus on driving innovation, strengthening food security, and empowering our communities. We will continue to work tirelessly to ensure that the ARC remains a trusted partner in South Africa's agricultural development.*

*I extend my deepest gratitude to our partners, stakeholders, and the farming community for their unwavering support and collaboration. To our dedicated staff, thank you for your hard work, passion, and commitment in delivering on the ARC's mandate. Together, we are creating a future where agriculture thrives as a cornerstone of our economy and society.*

*Thank you.*



Ms Joyene Isaacs

## CHAIRPERSON OF THE BOARD

*As Chairperson of the Board of the Agricultural Research Council (ARC), I am honoured to present the 2023/24 Citizens Report, which reflects the ARC's commitment to driving*

*innovation, promoting food security, and transforming South Africa's agricultural landscape.*

*The past year has been a testament to the ARC's resilience and adaptability in the face of unprecedented challenges. From the impacts of climate change to the economic pressures felt across sectors, the ARC has consistently delivered on its mandate, contributing cutting-edge research and practical solutions to support farmers and safeguard food systems.*

*The successes outlined in this report highlight the ARC's role as a cornerstone of agricultural transformation. Our work remains aligned with the National Development Plan and supports South Africa's broader objectives of socio-economic growth, sustainability, and inclusion.*

*Under the capable leadership of Dr Litha Magingxa and the executive team, the ARC has remained focused on*

*fostering sustainable and innovative agricultural practices. Key achievements, such as the development of drought-resistant crops, advancements in pest and disease management, and programmes aimed at empowering women and youth in agriculture, are all evidence of the ARC's commitment to serving South Africans at every level of society.*

*The Board has been steadfast in ensuring that the ARC continues to operate with integrity, transparency, and accountability. Effective governance is critical to ensuring that the ARC remains a trusted institution that delivers value to its stakeholders. Despite financial challenges, we have worked to prioritise resource allocation toward impactful research and farmer support initiatives.*

*Partnerships have been instrumental in amplifying the ARC's work. By working with the Department of Agriculture, Land Reform, and Rural Development (DALRRD), private sector partners, and international organisations, we have created synergies that enhance the reach and impact of our research and initiatives.*

*As we look ahead, the ARC is poised to scale its efforts in tackling key challenges such as climate change, food insecurity, and resource scarcity. The Board remains committed to supporting the ARC in realising its vision of a transformed and thriving agricultural sector that uplifts communities and strengthens the economy. On behalf of the Board, I extend my deepest gratitude to all ARC employees, stakeholders, and partners for their unwavering commitment to the ARC's mission. Your dedication and collaboration ensure that we continue to deliver meaningful contributions to South Africa's agricultural sector.*

*Let us continue to work together to create a sustainable future where agriculture flourishes as a cornerstone of South Africa's prosperity.*

*Thank you.*

## THE YEAR UNDER REVIEW

The 2023/24 financial year has seen significant progress for the Agricultural Research Council (ARC) as it supported South Africa's agricultural sector through innovative research, stakeholder engagement, and policy advocacy. This year also achieved notable milestones in the ARC's mission to transform agriculture, promote sustainability, and enhance food security both in South Africa and across the continent.

## CELEBRATING 30 YEARS OF DEMOCRACY

### *Cultivating success: three decades of agricultural innovation with the ARC*

In commemoration of 30 years of democracy, the Agricultural Research Council proudly reflects on its profound impact on agricultural development in South Africa. Established in 1992, the ARC has been a cornerstone of innovation, resilience, and progress in the agrarian sector, embodying a commitment to excellence nationwide.

Dr Litha Magingxa, President and CEO of the ARC, remarked, "As we celebrate three decades of agricultural innovation, the ARC's legacy stands as a testament to our dedication to the betterment of the people of South Africa. From empowering small-scale farmers to safeguarding invaluable genetic resources, our journey has been one of resilience, progress, and prosperity."

The ARC's journey began with a vision articulated by Dr AJ Heyns, the first President of the ARC, who emphasised the institution's expanded mandate to serve not only

ARC recognises that human capital remains the key driving force behind the successes and accolades it continues to receive within the industry and from the public.

The Human Capital Management (HCM) Division places a significant long-term emphasis on service offerings aimed at enhancing processes, people, and the organisation to meet the evolving needs of the ARC community. Consequently, during the year under review, the ARC, through initiatives led by the division, was honoured as a certified Top Employer for the second consecutive year.

This recognition serves as a testament to the commitment to continuous improvement in creating a conducive environment for employees to thrive and grow professionally. The ARC takes pride in being among other global companies whose practices were assessed, audited, and deemed worthy of recognition.

As part of its ongoing employee value proposition and to acknowledge individuals and teams that demonstrated exceptional performance during the financial year, the Employee Excellence Awards were reintroduced.



*Mr Serage, Ms Isaacs and Dr. Magingxa sharing a moment with Mr Mchunu*



*Official opening of the ARC-DARLLD conference*



*President and CEO Dr Litha Magingxa welcoming delegates at the maiden ARC-DARLLD conference*

commercial farmers but also smallholder and subsistence farmers. This vision laid the foundation for the ARC's holistic approach to agricultural research and development, ensuring inclusivity and sustainability across the industry.

Over the past thirty years, each of the ARC's ten campuses has played a pivotal role in shaping South Africa's agricultural landscape.


## HUMAN CAPACITY DEVELOPMENT

The ARC is a dynamic, highly research-intensive organisation that plays a pivotal role in ensuring food security. This commitment is not merely theoretical; it is a reality brought to the public by the skilled talent nurtured at the ARC. The

## STRATEGIC PARTNERSHIPS AND STAKEHOLDER ENGAGEMENT

### *The inaugural ARC-DALRRD Conference – Science Transforming Food Systems for a Better Future*

The ARC held its maiden conference from 12-14 February 2024. Since 2022, the ARC has renewed and strengthened its partnership with DALRRD, leading to numerous joint initiatives and culminating in the inaugural ARC-DALRRD Conference, under the theme "Science Transforming Food Systems for a Better Future." The conference,



attended by approximately 1,170 in-person participants on Day 1 and averaging 904 participants per day over the three days, served as a platform for stakeholders in agricultural R&D to showcase collaborative efforts and explore strategies for transforming food systems.

The conference was officially opened by the then Mrs Thoko Didiza, Minister of Agriculture, Land Reform and Rural Development. The programme included plenary and parallel sessions covering a range of topics under the sub-themes: (i) Climate Smart, Agricultural Technologies, (ii) Soil and Water Conservation, (iii) Fourth Industrial Revolution (4IR) and Big Data in Agriculture, (iv) One Health and Biosecurity Innovations, and (v) Agricultural Value Chains.

Through oral presentations, posters, and panel discussions, key messages and policy recommendations were extracted to accelerate the development of the agricultural sector.

Attendees, including government officials, farmers, academics, and industry stakeholders, engaged in discussions on farmer development, seed systems, food system transformation, and commercialisation. Researchers presented their work across various sub-themes, fostering stakeholder awareness, knowledge dissemination, and collaboration.

The conference highlighted recommendations for strengthened collaboration, increased funding allocation, capacity-building initiatives, and sustainable land and water management practices. It emphasised the significance of inclusive stakeholder engagement and robust monitoring and evaluation mechanisms to track progress and inform policymaking. Delegates expressed confidence in the ARC's scientific advancements and emphasised the importance of partnerships to overcome resource constraints and promote innovative research. Priorities included improving phytosanitary measures, strengthening value chains, and addressing climate change risks.

Implications spanned practical applications in agriculture and policy considerations, emphasising the need for continued state support, public awareness, streamlined regulatory processes, and investment in biological control, agronomic practices, and improvements in livestock management.

## AUDIT OUTCOME

Under the financial year 2023/24 the ARC faced some challenges, particularly the qualified audit outcome from the Auditor General. While this has posed a setback, we are already taking decisive steps to address the concerns raised. With your continued dedication and hard work, will not only overcome this challenge but also emerge stronger and more resilient than before.

## INFORMATION COMMUNICATION TECHNOLOGY

The ARC took a strategic decision in 2022 to implement the ERP Sage X3 system, starting in September 2022. The implementation of the ERP Sage X3 Project stemmed from challenges including high maintenance costs due to multiple systems, dispersed organisational information across various systems, AGSA audit findings, and the previous DAX R3 system reaching the end of mainstream support.

The ARC can report that the Sage X3 has been implemented. The ERP system integrates the following modules: general ledger, accounts payable, accounts receivable, fixed assets, budgeting, procurement, inventory, sales, distribution, and reporting. The system also interfaces with existing applications such as Sage and LIMS to ensure data consistency and accuracy. The system has enabled the ARC to standardise and automate its financial and supply chain management processes, improve its internal controls and compliance, enhance its decision making and reporting capabilities and reduce its operational costs and risks.

The ERP project went live during the reporting period, providing Finance and Supply Chain Management functionality.

## STAKEHOLDER ENGAGEMENTS

### *Contributions to Food Security and Sustainability*

The ARC supported rural and small-scale farmers with training programmes on sustainable farming techniques and climate-smart agriculture. The ARC undertook a project titled Development of Resilient E-Farming for Agro-climate Risk Management in African Multi-Environments (DREAM). This three-year international collaborative initiative was funded by the NRF in South Africa under their Africa-Japan Collaborative Research (AJ-CORE) Programme.

The project specifically targeted smallholder dryland farmers, who are particularly vulnerable to the adverse effects of climate change due to their limited knowledge of and access to infrastructure, climate-smart technology, and daily weather and seasonal climate forecasts. These tools are essential for adopting new farming practices. There is a pressing need for farmers to adjust their methods in response to changes and variability in weather and climate patterns to mitigate the associated negative impacts, especially those arising from extreme weather events.

Consequently, the DREAM project aimed to advance science and technology in agricultural climate risk

management in sub-Saharan Africa by leveraging weather forecasts and climate projections, and by developing a decision support system that identifies possible climate change adaptation measures to enhance food and nutritional security. The overarching goal was to assist farmers, extension officers, agricultural risk officers, cooperative consultants, and policymakers in making informed decisions regarding the climate risks impacting dryland agricultural production.

The ARC National Master Dairyman Awards, a significant milestone of the ARC project, continue to play an essential role in the development and mentoring of dairy farmers. The ARC National Master Dairyman Awards ceremony was held as a hybrid event, both in person and virtually, on 16 November 2023 at Groot Phesantekraal Estate, Cape Town. Hosted by Agri-Expo on behalf of the National Milk Recording and Improvement Scheme of the ARC, the event celebrated the country's most exceptional dairy farmers who utilise milk recording to breed genetically superior animals.

The programme featured a panel discussion on sustainability, moderated by Mr Breyton Milford, General Manager of Agri-Expo. The panellists included Ms Joyene Isaacs, Chairperson of the ARC Council; Mr Chris Fourie, Managing Director of DMC; and Prof. Norman Maiwashe, General Manager of ARC-AP. Ms Isaacs suggested that vulnerabilities in the agricultural sector could be addressed through collaboration, particularly by harnessing the energy of young people to cultivate the next generation of farmers. "The ARC Master Dairyman Awards are not only about recognising the winning farmers but also about the scientists and support organisations behind them. In partnership, we can achieve more," she stated.

Prof. Maiwashe underscored the significance of public/private partnerships, highlighting the successful collaborations between the ARC and the Department of Agriculture, Land Reform and Rural Development (DALRRD), as well as with private stakeholders in the industry.



## ARC PARTICIPATED IN THE 13TH MEETING OF BRICS MINISTER OF AGRICULTURE

During the year under review, the ARC participated in the BRICS meeting, showcasing its expertise and contributions to the agricultural sector, reinforcing its role in advancing agricultural research and innovation on an international platform.

ARC President and CEO Dr Litha Magingxa hosted the Vice Chancellor of Botswana University of Agriculture and Natural Resource (BUAN) Prof Ketlhatlogile Mosepele. The visit focused on prioritising areas of for project collaboration and implementation of the MOU entered between the two institutions.



*Dr Matsaunyane presenting during the 13th Meeting of BRICS Minister of Agriculture*

## WOMEN AND YOUTH EMPOWERMENT

During the year under review, the ARC conducted training sessions for rural farmers, equipping them with essential skills and knowledge to enhance agricultural productivity and sustainability.

