

RESEARCH COUNCIL OF ZIMBABWE



Leadership, Innovation and Development

20 | ANNUAL 19 | REPORT

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ACRONYMS

AGM	Annual General Meeting
ARMC	Audit and Risk Management Committee
AU	African Union
EMA	Environmental Management Agency
FAHRC	Finance Administration and Human Resources Committee
FRC	Foreign Researchers Committee
GDP	Gross Domestic Product
GRC	Global Research Council
HAS	Harare Agricultural Show
IP	Intellectual Property
NRDZ	National Research Database of Zimbabwe
NRSPC	National Research Prioritisation and Strategic Planning Committee
NSTIS	National Science Technology and Innovation System
MHTESTD	Ministry of Higher and Tertiary Education Science and Technology Development
MSU	Midlands State University
NUST	National University of Science and Technology
OPC	Office of the President and Cabinet
R&D	Research and Development
RCCC	Research Control and Coordination Committee
RCZ	Research Council of Zimbabwe
RPPRMC	Research Promotion, Publicity and Resource Mobilisation Committee
RRA	Rapid Results Approach
RRI	Rapid Results Initiative
SADC	Southern Africa Development Community
SANBIO	Southern African Networks on Biosciences
SARIMA	Southern African Research and Innovation Management Association
SGCs	Science Granting Councils
SGCI	Science Granting Councils Initiative
SIRDC	Scientific Industrial Research and Development Centre
SMEs	Small to Medium Enterprises
STI	Science, Technology and Innovation
TSP	Transitional Stabilisation Programme
TRB	Tobacco Research Board
TWG	Technical Working Group
UZ	University of Zimbabwe
ZAS	Zimbabwe Academy of Sciences
ZERA	Zimbabwe Energy Regulatory Authority
ZIRS	Zimbabwe International Research Symposium
ZITF	Zimbabwe International Trade Fair

VISION

To be the pivotal leader steering demand-driven research for wealth creation and the sustainable development of Zimbabwe by 2030.

MISSION

To contribute to the knowledge economy through promoting, directing, supervising, and co-ordinating demand-driven research and the translation of research results into goods and services.

VALUES

Innovation
Integrity
Professionalism
Unhu/Ubuntu

The Research Council of Zimbabwe (RCZ) was established in 1986 to promote, direct, supervise and coordinate research. RCZ activities are regulated by the Research Act [Chapter 10:22]. Additionally, Section 27 of the Research Act, gives the Research Council of Zimbabwe a special and sole mandate to register foreign researchers in Zimbabwe. The Research Council of Zimbabwe is placed to play a catalytic and coordinating role in Zimbabwe's transformation through demand driven research, and through catalysing actors within the National Science Technology and Innovation System, (NSTIS) to cause research to happen, as well as causing research output which can be commercialised. This is in line with national goals and aspirations to modernise and industrialise Zimbabwe by providing superior goods and services which are globally competitive and capable of attracting foreign currency earnings, foreign direct investment, and promoting import substitution.

The Council's Strategic Plan, (2019-2023), is premised on four Key Result Areas which are:

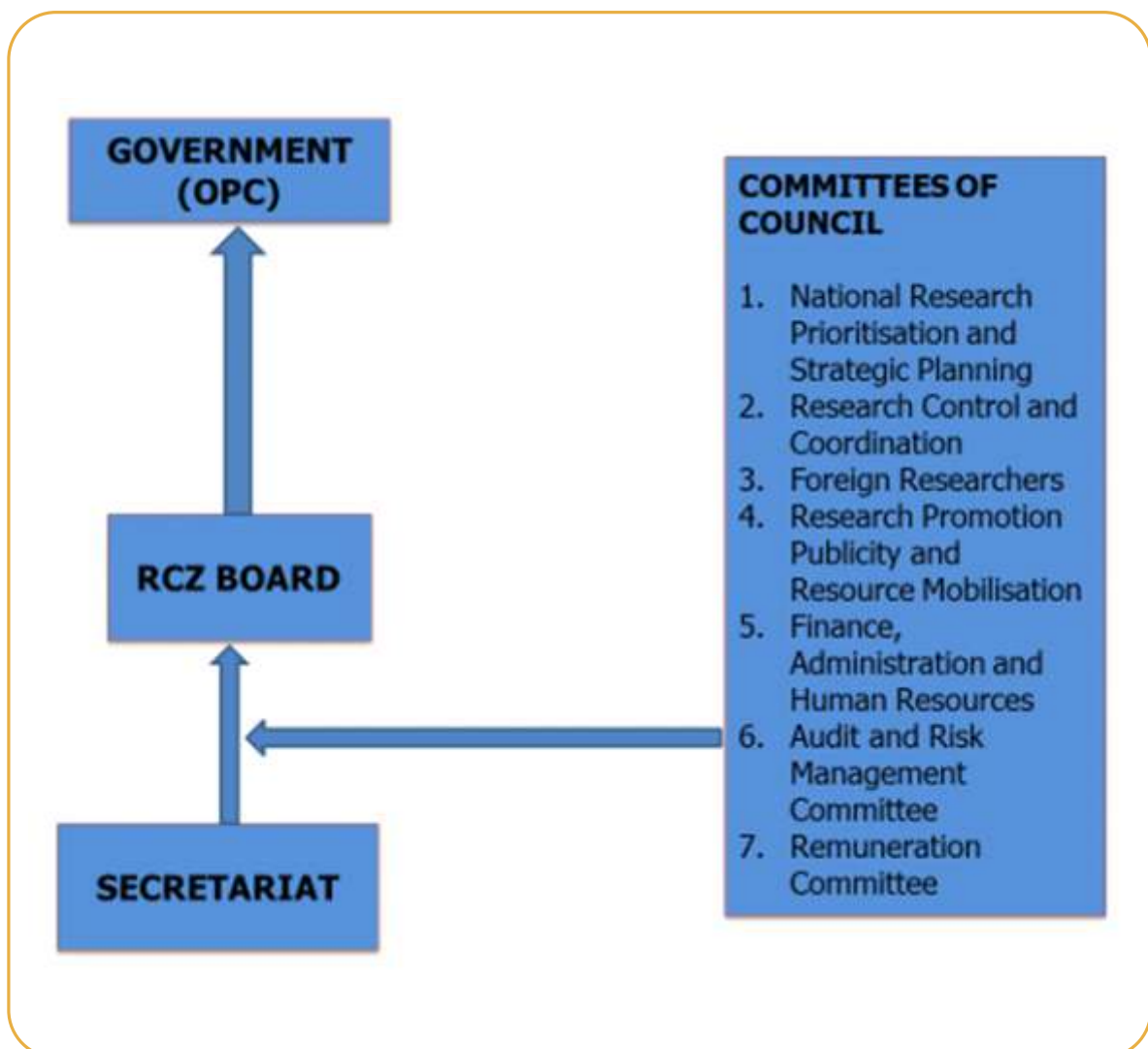
- i) Research Results Utilisation,
- ii) Research Promotion, Direction, Supervision and Coordination,
- iii) Information Dissemination, and
- iv) Organisational Capacity Development

Under these Key Result Areas, RCZ's role is to promote, direct, supervise and coordinate research within the framework of the National Research Priorities on which research funding and allocation of resources through the RCZ is anchored. RCZ is ever cognisant of the changing demands on research and the extending fields of enquiry, and as such, is alive to new and emerging trends in technology, the space sciences, nanotechnology, and the high-end sciences. An important milestone in 2019, which will guide the Councils' strategic direction, is the express declaration by the Head of State and Government, H.E. President E.D. Mnangagwa, of Government's commitment to fund Research and Development to the tune of 1% of GDP. This welcome development provides a conducive environment for the furtherance of research in support of Zimbabwe's transformation and the attainment of national goals.

RCZ GOVERNANCE

The Research Council of Zimbabwe reports to the Office of the Vice President, Honourable Rtd General Dr C.G.D.N. Chiwenga.

The Council's operations are overseen by a Board of Directors, made up of a maximum of fifteen persons. The Executive Director is the Head of Secretariat. Council business is transacted through the work of seven committees, as highlighted on the diagram.



TRANSACTION OF COUNCIL BUSINESS

MEETINGS OF COUNCIL

The Board statutorily held all its meetings, and its Committees also met as scheduled as shown in Table 1 and 2 below.

Table 1.

Period	Scheduled Board Meetings for 2019	Actual Meetings Held	% of meetings held
First Quarter	1	1	100%
Second Quarter	1	1	100%
Third Quarter	1	1	100%
Fourth Quarter	1	1	100%
Total	4	4	Percentage Average 100%

Table 2.

Name of Committee	Scheduled Committee Meetings	Actual Committee Meetings held	% of Meetings held
National Research Prioritisation & Strategic Planning	4	1	25%
Research Control & Coordination	4	2	50%
Research Promotion, Publicity & Resource Mobilisation	3	3	100%
Foreign Researchers	12	11	92%
Finance, Administration & Human Resources	4	4	100%
Audit & Risk Management	4	4	100%
Remuneration	2	2	100%
TOTAL	32	28	86%

In line with corporate governance guidelines, RCZ convened its 4th Annual General Meeting in September 2019. The AGM was attended by shareholders from the Office of the President and Cabinet, and the Ministry of Finance and Economic Development; as well as stakeholders and RCZ Board members.

The AGM provided RCZ with an opportunity to appraise its shareholders and stakeholders of the previous years' activities. During the meeting, the Annual Report for 2018 was presented, together with the Financial Statements and Reports of the Auditor General for the financial year ending 31 December 2018, and the transaction of other Council business.

In his report, the Chairman highlighted key milestones of the preceding year, which included the finalisation of the 2019-2023 Strategic Plan, with four Key Result Areas which are: i) Research Results Utilisation, ii) Research Promotion, Direction, Supervision and Coordination, iii) Information Dissemination, and iv) Organisational Capacity Development. Plans to host the National Research and Development Survey on the Small to Medium Enterprises Sector and Cooperatives were made, and subsequently, the Survey was held from July to August 2019. In 2018, RCZ also made collaborative partnerships in pursuit of its goals of funding research within the purview of the National Research Priorities.

2018 also saw the establishment of the Zimbabwe National Geospatial Agency, (ZINGSA), built on the recommendation of the RCZ for Zimbabwe to be a member of the Group on Earth Observations. Another key milestone was that RCZ operationalised implementation of the seven research projects approved by Cabinet under the Agency.

The Chairman also reported that a Rapid Results Initiative was held in 2018, building from the one held in 2017 and focused on Intellectual Property, Commercialisation of research output, and mobilisation of funds for R& D. The National IP Policy was launched during the third quarter of 2018. RCZ's shareholder from the Office of the President and Cabinet congratulated RCZ for the milestones reached in 2018, and the R&D survey with SMEs and Cooperatives. He added that the attainment of Vision 2030, that of Middle-Income Economy Status, was a collective aspiration, and research could propel and drive the country towards that vision. He added that the sectors of mining, agriculture and industry, could not take off without research. He stressed the need for utilisation of research results into tangible products.

RCZ BOARD

The RCZ Board, led by distinguished engineer, academic and practitioner Dr Eng M. J. Tumbare, has overall responsibility for overseeing the strategic direction and long-term success of the Research Council of Zimbabwe.



Dr M.J. Tumbare
Board Chairman



Mrs S. Muzite
Executive Director



Prof. I. Sithole-Niang
Vice Board Chairman



Mrs M.D. Chasi



Mr S.C. Chigwamba



Prof. H. Chimhundu



Ms C. Chitewe



Dr D. Garwe



Mrs J. Gombe



Mr D.E.H. Murangari



Mr S. Nyarota



Mr C.A. Samkange



Prof. S. Sibanda

RCZ MANAGEMENT

In executing the strategic framework set by the Board, the Research Council of Zimbabwe Executive Director, Mrs Susan Muzite, is supported by a complement of four managers responsible for implementation of the RCZ strategy. The RCZ Management Team has a diverse skill set in programme management, risk and mitigation, media and policy, finance and accounting. There is a 50-50 gender balance within the team.



Dr Timothy Marango
Research Prioritisation
Control and Coordination
Manager



Mr Edson Mukova
Chief Accountant



Mrs Sharai Muonwa
Marketing & External
Relations Manager



Mrs R. Tamangani
Finance & Administration
Manager



It gives me great pleasure to present the 2019 Annual Report, in fulfilment of the provisions of corporate governance. The report outlines the work done by Council in the year 2019, and highlights the achievements and success stories of Council. I am pleased to report that the Research Council of Zimbabwe in 2019 managed to fulfil its responsibilities and obligations to the nation, through the execution of its mandate which is to promote, direct, supervise and coordinate research in support of Zimbabwe's national interest.

National Context for Research

Operating within the context of national development and national policy imperatives, Council's operations were guided by the national vision and aspiration to contribute towards Zimbabwe's attainment of Middle Income Economy Status by 2030. Council was also alive to other national policy frameworks such as the Transitional Stabilisation Programme. Internally, Council was guided by the 2019 -2023 Strategic Plan, and at operational level, the Council Integrated Performance Agreement for 2019.

The policy intent of the Ministry of Higher and Tertiary Education, Science and Technology Development to adopt Education 5.0, which places a premium on Innovation and Industrialisation, provided Council with the impetus to emphasise the importance of research which is aimed at producing goods and services. The shift to knowledge and research which leads to the production of goods and services, is instructive of the new research landscape and the role of the Research Council in promoting such. Attendant to issues of innovation and commercialisation is the acknowledgement that intellectual property is a potent source of economic and technological power which will catapult the nation to middle income economy status, and will accentuate the Council's role in the global knowledge economy. The rights to ownership to knowledge and research outputs and its transformative monetary translation causes the Research Council to reconfigure the pursuit of its mandate, to focusing on harnessing the individual and collective research talent of Zimbabwe for socio-economic gain.

Entrusted with the responsibility of ensuring that Council operates within the dictates of its mandate, through the Research Act [Chapter 10:22], which is to make a positive contribution to national development through the promotion, direction, supervision and coordination of research, the Board is happy with the progress and achievements of the RCZ during 2019.

Strategic Overview and Intent

Council's strategic direction was underscored by the dictates of its Strategic Plan (2019-2023), which has four pillars which are: Research Results Utilisation; Direction, Supervision and Coordination; Organisational Capacity Development and Information Dissemination. Under these four strategic goals, RCZ made indelible footprints, milestones and achievements towards their fulfilment, through the work of its five Committees, and the results therefrom.

Increased Investment in R&D

An important milestone of RCZ in the reporting period is the due recognition made to the importance of Research and Development in national development. This recognition, was expressly made by His Excellency, the President of the Republic of Zimbabwe, Cde Dr E.D. Mnangagwa in a Statement made at the 12th edition of the Zimbabwe International Research Symposium wherein Government made a commitment to fund R&D to the tune of 1% of GDP, the continental threshold proposed by the African Union. It is a widely held contention that huge investment in R&D by Governments has a positive correlating effect on national development. This has been evidently witnessed by countries in the North and East, where substantial investment in R&D has met with a positive correlation in improved standards of living, superior goods and service and resultantly, a higher development index. Zimbabwe is on the correct trajectory towards development, unencumbered by the lack of resources and investment in R&D.

The announcement to fund R&D to the tune of 1% of GDP by His Excellency Cde Dr E.D. Mnangagwa was made in recognition of the work of the Research Council of Zimbabwe as the Agency of State mandated to coordinate and oversee research in Zimbabwe. Council believes that building on the past work of Council and achievements, Government recognises its efforts in this regard.

Hosting of the 12th ZIRS

Another achievement of Council in the reporting period was the hosting of the biennial 12th Zimbabwe International Research Symposium held from 13 to 15 February 2019 at the Harare International Conference Centre. Held under the theme, “The Nexus between Research and Industry – Key to Innovation and Sustainable Development,” the Symposium once again consolidated the position of the Research Council of Zimbabwe in research coordination, as it brought together stakeholders from research, industry, academia, young innovators, and provided a platform for interaction in furtherance of creating synergistic partnerships for promoting demand-driven research and an appreciation of the best of research output in Zimbabwe.



His Excellency, the President of Zimbabwe Cde Dr E.D. Mnangagwa was the Guest of Honour at the 12th ZIRS.

CHAIRMAN'S STATEMENT

Concomitant to the hosting of this event, was the publication of the Book of Abstracts in October 2019; a distillation of the best of Zimbabwe's research effort, which is available on the Council's website. Also available on the website is the Book of Selected Papers Presented (ISBN Number 978-1-77929-465-4 ISSN Number 2412-2386).

The National R&D Survey

In rallying behind Government effort to contribute towards the realisation of Vision 2030, and in contributing towards Zimbabwe's economic transformation, Council embarked on a National Research and Development Survey on Small to Medium Enterprises, (SMEs) and Cooperatives, across Zimbabwe's ten provinces. The objective of the Survey was to measure R&D being used by the SMEs and Cooperatives in the production of goods and services which are globally competitive. The outcomes of this Survey have significant meaning for Zimbabwe's economic fortunes and attainment of Middle-Income Economy status, as the Survey was in itself inspired by the contribution of the SME and Cooperatives sector to the economy. Council is commended on embarking on this Survey, whose results are of national significance, and which if taken on board, will have far-reaching impact on Zimbabwe's development. It is also important to add that prior to the roll-out of this Survey, Council made use of its membership to collaborative groupings, in particular, the Science Granting Council Initiative, in receiving training which allowed for the eventual holding of the R&D Survey. RCZ also made use of its various strategic partners in Government, Government agencies and parastatals in the roll out of the R&D survey report.

Research Funding under NRPs

Funding of research under the National Research Priorities was also evidenced in 2019 with a total of three projects funded in the areas of renewable energy, development of road infrastructure and goat production. These projects target the following areas of national strategic importance which are; the promotion of selected goat breeds for export, production of raw materials for road infrastructural development and renewable energy. The projects will be continuously rolled out and monitored in the coming year. The Zimbabwe National Geo Spatial Agency (ZINGSA) projects steadily progressed in 2019, and more developments are expected in 2020. The projects under ZINGSA hold the potential for catapulting Zimbabwe to development status through the use of high-end space science technology in the areas of disease surveillance and control, land mapping, among others, key areas for sustainable development.

I am grateful for the support I received from my colleagues on the Board, the sterling work of the Secretariat in the year 2019 and my sincere appreciation to the Executive Director for her leadership and commitment. We look forward to a more invigorated team in 2020 and to the furtherance of the RCZ agenda.

I thank you.



**Dr. Eng. M.J. Tumbare, Pr. Eng., CEng.
Board Chairman**

The year 2019 was indeed a year of great achievement and significant inroads by the Research Council of Zimbabwe (RCZ). Deliverables for 2019 were executed within the context of the National Vision of Zimbabwe becoming a Middle-Income Economy by 2030 guided by the Transitional Stabilisation Programme (2018-2020). Internally, RCZ programmes were informed by four Key Result Areas (KRAs), derived from Council's Strategic Plan (2019-2023) which are:

i) Research Results Utilisation;
ii) Research Promotion, Direction, Supervision & Coordination; iii) Organisational Capacity Development; and iv) Information Dissemination. During the period under review, deliverables were implemented following the tenets of IRBM which places more emphasis on results-based outputs and outcomes as opposed to activities.

During the reporting period, RCZ hosted the biennial 12th Zimbabwe International Research Symposium (ZIRS), and the Research and Development Survey on the Small to Medium Enterprise Sector and Cooperatives. In meeting the major outputs and outcomes of the 2019-2023 Strategic Plan, RCZ prioritised implementation of high priority programmes during the period under review and these were: monitoring of projects under the Zimbabwe National Geo-Spatial Agency (ZINGSA), projects funded under the National Research Priorities, participation in the Science Granting Councils Initiative, and the continued registration of Foreign Researchers. Overall, RCZ began implementation of the five-year Strategic Plan (2019-2023).

Hosting of the 12th ZIRS

From 13 to 15 February 2019, Council hosted the 12th Zimbabwe International Research Symposium which saw the gathering of over 3 000 academics, captains of industry and commerce, researchers convening at the Harare International Conference Centre for the event. The Symposium is a showcase of Zimbabwe's work in research and development. The highlight of the event was the Official Opening ceremony by His Excellency the President of Zimbabwe, Cde Dr E.D. Mnangagwa. In his speech, the President commended RCZ for its work in research and development, and for positioning RCZ as a formidable force in promoting research in Zimbabwe. The Symposium was held under the theme, "The Nexus between Research and Industry – Key to Innovation and Sustainable Development" and highlighted the work of Zimbabwean researchers within the context of the Government approved National Research Priorities, which are: the social sciences and humanities, sustainable environmental and resource management, promoting and maintaining good health and the national security of Zimbabwe.

An important outcome of the Symposium was the work of RCZ in convening entrepreneurs and the Small to Medium Enterprise Sector and Cooperatives, and raising their role in contributing to the national economy. The SMEs presence, their role in national transformation and the research from the sector, were to be realised through the implementation of the National R&D Survey across Zimbabwe.

For Council, the pronouncement by His Excellency the President of the continued funding of research and development and the commitment to fund it to 1% of GDP, was well received and is a pointer towards the recognition of R&D and its role in national development by Government.

Overview of 12th ZIRS Proceedings

Presentation on the Science of Entrepreneurship

The International Guest Speaker, Mr Aamir Butt, Chief Executive Officer of Lancor Scientific and Tumour Trace shared his experiences with delegates on how he established Lancor Scientific. The presentation was premised on some of the important steps and considerations to be taken into account by entrepreneurs in

starting up their business. Emphasis was raised on the journey he travelled, and how he eventually collaborated with academics and business people for the development of a solution on early detection of cancer. His presentation strongly resonated with the ZIRS theme, in the line of the link between academia and business, and the positive outcomes of such linkages.

Mr Butt took participants through an interactive workshop on the Science of Entrepreneurship. The presentation highlighted that the quest for entrepreneurship was not only local but an international phenomenon with similar opportunities and challenges. Key issues which emanated from the presentation were on how to fund and govern entrepreneurial activities.

Presentation on Young Innovators by POTRAZ

From a local perspective the Postal Regulatory and Telecommunications Authority of Zimbabwe (POTRAZ), the 12th ZIRS Gold Sponsor, gave a presentation on their Innovation Drive which is supporting local Innovators to use Information Communication Technologies (ICT) solutions for sustainable development. The presentation featured testimonials from young innovators who were beneficiaries of the POTRAZ Innovation Drive. The beneficiaries had made some breakthroughs in the areas of agriculture.

Exhibitions by Young Scientists and Corporates

The 12th ZIRS featured a young Scientists' Exhibition to showcase research projects undertaken by Primary and Secondary School children from all the ten (10) provinces in Zimbabwe. The Ministry of Primary and Secondary Education played a facilitatory role to ensure the participation of primary and secondary school children. Adjudication of young scientist exhibitions which was done on the first day of the symposium was presided by an Adjudication Panel comprising members of the Awards and Exhibitions Sub-Committee, the Ministry of Primary and Secondary Education, and representatives of POTRAZ.

Corporate exhibitors were provided with an opportunity to showcase their innovations, products and services. Corporates who took part in the exhibitions included:

- a) Belvedere Technical Teachers College
- b) Champions Insurance
- c) DNMAAttorney's
- d) EMRAS
- e) Environmental Management Agency
- f) First Mutual
- g) G-Tel
- h) Lancor Scientific
- i) National Biotechnology Authority
- j) POTRAZ
- k) TelOne
- l) Tobacco Research Board (TRB)
- m) University of Zimbabwe College of Health Sciences – Clinical Trials Research Unit
- n) ZERA
- o) Zimbabwe Parks and Wildlife Authority (ZIMPARKS)

Plenary Sessions

The 12th ZIRS incorporated two (2) plenary sessions. These were facilitated by expert speakers identified in line with the theme. The plenary presentations focussed on research and industrialisation, role of

intellectual property in national innovation systems and a special Paper on Research, Innovation and Entrepreneurship Ecosystem in Zimbabwe. The 12th ZIRS headline sponsor, the Zimbabwe Energy Regulatory Authority (ZERA), delivered a presentation on the linkage between research and industrialisation placing emphasis on the importance of research on renewable energy. ZERA reaffirmed its commitment to continue funding Research and Development (R&D) in Renewable Energy under the existing Memorandum of Understanding with RCZ.

Donsa, Nkomo and Mutangi (DNM) Attorneys enlightened delegates on the role of Intellectual Property Rights in National Innovation Systems. Research and Academic Institutions were challenged to develop their Institutional Policies modelled along the National Intellectual Property Policy recently launched by Government. RCZ took the opportunity to situate the nexus between research and industry by delivering a special Paper on the Research, Innovation and Entrepreneurship Ecosystem. The importance of synergies among players within the National Science Technology and Innovation System with RCZ playing an intermediary role was emphasised. The presentation by the Executive Director bordered on knowledge transfer and acknowledging Government's gesture for allocating a significant amount of resources towards R&D. An emphasis was made for Zimbabwe to occupy its niche in the global economy by producing and marketing "Go to Zimbabwe for Goods" through research effort.

Parallel Session Presentations

Eighty-three (83) papers contributed by participants were presented under the four National Research Priority Areas namely Social Sciences and Humanities, Sustainable Environment and Resources Management, Promoting and Maintaining Good Health, and National Security of Zimbabwe. The papers were spread as follows:

National Research Priority Area	Papers Presented	% of Papers
Social Sciences and Humanities	19	23
Sustainable Environment and Resources Management	46	55
Promoting and Maintaining Good Health	12	15
National Security of Zimbabwe	6	7
Total	83	100

Table 3: Statistics on Research Papers Presented

Topical issues discussed under the Social Sciences and Humanities theme area included promotion of business incubation programmes, importance of Intellectual Property in the research to product value chain and the utility of ICTs in enhancing agricultural marketing among local farmers. The theme area constituted 23% of the research papers at the 12th ZIRS.

The theme area on Sustainable Environment and Resources Management topped the list by contributing 55% of the papers presented at the 12th ZIRS. Research papers were in the areas which included climate change, environment, mining, renewable energy and agriculture. More than half of the papers under this category were in the field of Agriculture confirming that indeed Zimbabwe was an agro-based economy. The need to create value chains around agriculture to boost the country's exports and attract Foreign Direct Investment (FDI) was elaborated during the presentations.

Despite the high intensity of research in the medical field, the theme area on Promoting and Maintaining Good Health, contributed 15% of the research papers. This position could be attributed to the fact that research in this sector is mostly funded by donors who place stringent conditions on publicity of research findings. This leaves local researchers with only one option of presenting findings of such studies at

EXECUTIVE DIRECTOR'S OVERVIEW

platforms approved by the donors. The few papers presented, however, were insightful as they focussed on the role of the pharmaceutical sector, the relationship between non-communicable diseases and traditional foods, and HIV drug resistance.

The theme area on National Security of Zimbabwe, regardless of its strategic nature, has always received the lowest number of research papers. During the 12th ZIRS, only 7% of the research papers were presented in this area. The papers were in the area of food security, cyber-security and invasive species.

Sponsor's Roll

The Research Council of Zimbabwe appreciates the support of the Government of Zimbabwe and the following organisations who supported the 12th ZIRS.



GOVERNMENT OF ZIMBABWE MINISTRIES

Ministry of Higher and Tertiary Education, Science and Technology Development

Ministry of Primary and Secondary Education

Ministry of Information, Publicity, and Broadcasting Services

Ministry of Women Affairs, Community, Small and Medium Enterprise Development

Ministry of Industry and Commerce

Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement

12th ZIRS HEADLINE SPONSOR



12TH ZIRS GOLD SPONSOR



ZIMBABWE INSTITUTE OF ENGINEERS



DAILY NEWS



BRAND LOGIC



NATIONAL INSTITUTE OF HEALTH RESEARCH



Research and Development Survey

A major highlight of 2019 was the R&D Survey which was held across Zimbabwe's ten provinces. The survey was held against the need to assess and understand the extent to which SMEs and Cooperatives utilise R&D in the production of goods and services. This was in recognition of the increasingly important role that SMEs and Cooperatives play in the economy, and ultimately their impact on national development. In line with Government's vision to attain Middle Income Economy Status by 2030, the SMEs and Cooperatives have a central role to play in producing globally competitive goods and services, which will make a direct contribution to the country's foreign currency earnings, as well as promoting import substitution locally. We believe capacitating this sector with knowledge and information on the supremacy of R&D in the production process, will lead to the manufacture of superior and globally competitive products.

Council embarked on a nationwide survey and went across Zimbabwe's ten provinces to collect information and data on the level of R&D used by the Small to Medium Enterprise sector and Cooperatives. The results of which will be published in the R&D Survey report to be made available to the Zimbabwean public.

IRBM Compliant Strategic Plan

In line with Public Service reforms, and the need by Government to ensure that service delivery and results-based management are infused in the public service work ethic, 2019 marked the first year of implementation of an IRBM Strategic Plan. We are optimistic that Council will deliver on the Strategic Plan through its programming and activities.

RCZ Office Expansion

The design of the new RCZ offices building was considered by the FAHR Committee at its meeting of 6 June 2019 and the designs were approved for signing off by the Committee. The Board approval was given on 27 September 2019.

Overview of Programmes and Activities

The year 2019 saw a consolidation of delivering on mandate (promotion, direction, supervision and coordination of research) through our various programmatic committees which include National Research Prioritisation and Strategic Planning, Research Control and Coordination, Foreign Researchers, Research Promotion, Committee, and the administrative committees of Finance and Human Resources, Audit and Remuneration Committees. The major highlight by far was administering the Zimbabwe National Geo Spatial Agency (ZINGSA) seven projects funds, progress in implementation of three projects under the National Research Priorities and being administered through the Midlands State University, Lupane State University and the Ministry of Transport and Infrastructural Development. More programmes and activities are reported on elsewhere in this report.

Local, Regional and International Collaborations

In pursuit of its mandate to cooperate with organisations and institutions in any part of the world pertaining to research, Council continued with the strengthening of its local, regional and international collaborations and participation in fora such as the Science Granting Initiatives, Global Research Council, International

EXECUTIVE DIRECTOR'S OVERVIEW

Science Council and the OR Tambo Regional Chairs.

At the local level, and in operationalising the National Science, Technology and Innovation System of Zimbabwe, Council strengthened its collaboration with the Zimbabwe Energy Regulatory Authority (ZERA) in the area of promoting research in renewable energy. Council also collaborated with Government Ministries, departments and agencies of state in rolling out the Research and Development Survey across the country's ten provinces.

In contributing to the Sub-Saharan Africa regional research agenda and in strengthening collaboration and research management systems, Council participated in the Science Granting Councils Initiative, entering into Phase 1 of research collaborations with Malawi in the area of Agriculture Biotechnology. Inroads were made in initiating and strengthening partnerships with Mozambique, Namibia and Botswana in the areas of renewable energy, veterinary sciences and minerals technologies. Council also participated in, and gave input to regulatory frameworks for research managements institutions through the Southern African Network for Biosciences (SANBio) at a stakeholder's workshop. Council also participated in the Regional Initiative for the OR Tambo Chairs under the auspices of the SGCI.

At global level, Council continued with its membership to the Global Research Council; with attendance at the Global meeting in Sao Paulo Brazil in May. At this meeting, 49 Heads of Research Councils participated to share best practices, and discuss research funding policy issues, and the need to promote the societal and economic impact of research.

Staffing

In 2019 Council had a staff establishment and complement of over 75%, which had not been attained in previous years. Council got Cabinet concurrence to recruit staff in all of its critical areas to enhance its operations. Noteworthy was having a full complement of managers in post.

Future Outlook

Programmes and activities are set to expand. Key highlights of 2020 will include the dissemination of research results for the National Research and Development Survey, the hosting of the Africa Regional Forum of the Global Research Council by RCZ, the strengthening and consolidation of partnerships, and the furtherance of research in new and emerging disciplines of science. RCZ is grateful for the continued support of the Office of the President and Cabinet, Government, and all our stakeholders who contribute to the realisation of our mandate.

I thank you.



Mrs Susan Muzite
Executive Director

HOSTING OF THE 12TH ZIMBABWE INTERNATIONAL RESEARCH SYMPOSIUM

Introduction

As part of efforts to promote, direct, supervise and coordinate research in Zimbabwe, the Research Council of Zimbabwe hosted the 12th Zimbabwe International Research Symposium, a biennial event. The event was held at the Harare International Conference Centre from 13 to 15 February 2020 under the theme, **“The Nexus between Research and Industry – Key to Innovation and Sustainable Development.”** A daily average of 700 delegates of diverse backgrounds drawn from the various sectors of the economy such as academia, entrepreneurs, industry and Government attended the 12th ZIRS daily over three days.

Hosting biennial Symposia has relevance in three of the four KRAs namely

- i) Research results utilisation,
- ii) Research promotion, direction, supervision and coordination, and
- iii) Information dissemination.

Objectives

The major objectives of the Symposium were to:

- (i) Provide a linkage between research and industry against a backdrop of the country's vision of attaining Middle-Income economy status by 2030.
- (ii) Facilitate utilisation of research results
- (iii) Increase the number of stakeholders and clients contributing to RCZ initiated programmes by 100% by December 2023 taking 2018 as a baseline

Highlights of Keynote Address by His Excellency, the President of the Republic of Zimbabwe

His Excellency the President of the Republic of Zimbabwe, who presided over the 12th ZIRS Official Opening and Awards Ceremony, re-affirmed Government's commitment to incrementally fund Research and Development (R&D) to enhance rapid industrialisation.

The 2019 National Budget allocated 0.3% towards R&D with RCZ in particular being allocated a substantial RTGS\$8, 1 million. This commitment is in sync with the strategic goal on functionalising the Disbursement Framework for National R&D funds by 2019, and securing annual disbursement of at least 1% of GDP towards R&D. RCZ greatly appreciates this gesture by Government.

Zimbabwe International Research Symposium (ZIRS)

Book of Papers Presented

As part of efforts to promote the utilisation and uptake of research findings, the Research Council of Zimbabwe (RCZ) produces a publication of research papers presented at its symposia. At the 12th Zimbabwe International Research Symposium (ZIRS) held from 13 to 15 February 2019, eighty-three (83) papers were contributed by local and international participants. These research papers were presented under the four National Research Priority Areas namely Social Sciences and Humanities (19), Sustainable Environment and Resources Management (46), Promoting and Maintaining Good Health (12), and National Security of Zimbabwe (6).

In keeping with international best practice, full papers for presentations delivered at the 12th ZIRS were subjected to a peer review process for purposes of enhancing the quality of the publication. RCZ is pleased to announce that the Book of Papers has now been published with an International Standard Book Number (ISBN) and International Standard Serial Number (ISSN). Of the 83 papers presented at the symposium, thirty-five (35) papers were either published elsewhere or could not pass the expected editorial standards. These papers were therefore not published in the 12th ZIRS Book of Papers Presented. As such, the Book of Papers Presented comprises forty-eight (48) papers inclusive of those presented during plenary and parallel sessions.

Academia and Industry Interaction

The nurturing of relationships between industry and academia for national socio-economic growth was amplified by an interactive workshop coordinated by the International Guest Speaker from Lancor Scientific, Mr A Butt. The workshop presentation on 'The Science of Entrepreneurship' was informative as it provided a methodological approach and practical tool for use by entrepreneurs when establishing business enterprises. The headline sponsor of the 12th ZIRS weighed in with a presentation which emphasised aspects of demand-driven research within the energy sector.

Donsa, Nkomo and Mutangi (DNM) Attorneys, whose presentation was on the role of Intellectual Property to National Innovation Systems, unpacked the objective on increasing the transfer of knowledge to knowledge users (Industry, entrepreneurs, and investors). The 12th ZIRS was unique in that through collaborative efforts with the Postal Telecommunications Regulatory Authority of Zimbabwe (POTRAZ), there were testimonial presentations from beneficiaries of the Information, Communication Technology (ICT) Drive which brought to the fore the commercialisation path for research outputs. In all these presentations, RCZ scored high on its mission which seeks to contribute to the knowledge economy through promoting, directing, supervising, and co-ordinating demand-driven research and the translation of research results into goods and services.

Young Scientists



A group of young scientists share a lighter moment with President Cde Dr E.D. Mnangagwa who is accompanied by RCZ Executive Director, Mrs Susan Muzite and the Board Chair, Dr Eng Tumbare on a tour of Young Scientists' exhibitions.

The Symposium's thrust to inculcate a culture of research, at a very early stage, was achieved by bringing together young scientists from primary and secondary schools from across the country's ten provinces.

These young scientists had an opportunity to showcase their innovations and some winning prizes for their

outstanding work. Also, 1400 pupils from schools in and around Harare attended the Official Opening and Awards Ceremony. For the first time, RCZ deliberately invited senior and retired business people and experts in the research enterprise to facilitate interaction and transfer of knowledge to the upcoming scientists, thereby increasing the number of stakeholders and clients contributing to RCZ initiated programmes. Special mention goes to Mr E. M Makonese, a former RCZ Board Chairman, who attended the Symposium on two of the three days.

Awards For Research Excellence

As the apex Council on matters of research, RCZ recognised research excellence at the 12th ZIRS by giving awards in the following categories:

Table 4: Awards Presented at the 12th ZIRS

Award Category	Winner	Contribution
Robert Gabriel Mugabe Award to a team	Crop Breeding Institute under the Department of Research & Specialist (DR&SS), of the Ministry of Lands, Agriculture, Water, Climate and Rural Resettlement.	The Research Team developed drought tolerant, high yielding and bio-fortified bean varieties in response to declining soil fertility, coupled with erratic rains due to climate change. The programme within the context of the National Food Fortification Strategy launched by the Government of Zimbabwe in 2015.
Presidential Award to a Company for outstanding application of Research and Development (R&D) or commercialisation	Code Empire, a 100% registered Zimbabwean firm	The firm researched on the adoption of e-health systems and developed an on-line management platform.
Social Sciences and Humanities Sectoral Award	Business Development and Strategy Specialist at Steward Bank and Director for Purple Signs (Pvt) Ltd	The company developed the first mobile phone based Zimbabwean Sign Language Video Dictionary called Purple Signs to improve communication between deaf and non-deaf people and create a more inclusive society in line with United Nations Convention on Rights of Persons with Disabilities (UNCRPD).

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Award Category	Winner	Contribution
Natural and Environmental Sciences Sectoral Award	Chief Specialist in Materials Research in the Department of Roads under Ministry of Transport and Infrastructure Development.	Researched on a sustainable way of utilising chrysotile fibres (from Mashava mine dump) and crude tar (from Hwange Power Stations) which are an environmental problem. The researcher developed an innovative and industrial practical method of unlocking value in waste chrysotile fibre and crude tar by converting the traditionally waste natural fibre mineral into usable silicates nanotubes by ball milling and chemical treatment method to produce a non-toxic high modulus coal tar for road surfacing and rehabilitation.
University Student Research Award	Master of Science in Agricultural and Applied Economics at the University of Zimbabwe	Investigated factors influencing utilisation of mobile applications in agricultural marketing among communal farmers in Zimbabwe. The project called SMART CONNECT utilised mobile applications to link smallholder farmers to markets and transporters with the broader aim of improving livelihoods.
Young Scientist Secondary	Murambinda High School	Thermo stove for use by both urban and rural communities
Young Scientist Primary	Rimbi Primary School from Manicaland Province	Devised a household security system

In addition to meeting aspirations of the KRA on information dissemination, presentation of awards fulfilled the target of promoting research.

In pursuit of meeting the Strategic Plan targets of increasing the number of stakeholders and clients contributing to RCZ initiated programmes and facilitating utilisation of research results for at least 30 projects by December 2023, corporate exhibitors were provided with an opportunity to showcase their innovations, products and services. The Zimbabwe Energy Regulatory Authority was the headline sponsor for the 12th Symposium, and their support is greatly appreciated.

NATIONAL RESEARCH AND DEVELOPMENT SURVEY ON SMEs AND COOPERATIVES

Introduction

The Research Council of Zimbabwe embarked on a National Research and Development Survey on Small to Medium Enterprises and Cooperatives to measure and assess the use of research and development by the SME and Cooperatives sector in the production of goods and services.

The main motivation for conducting this Survey was the recognition of the increasingly important role that SMEs and Cooperatives play in the economy, and ultimately their impact on national development. In line with Government's vision to attain Middle Income Economy Status by 2030, the SMEs and Cooperatives have a central role to play in producing globally competitive goods and services, which will make a direct contribution to the country's foreign currency earnings, as well as promoting import substitution locally.

Placing emphasis on the utilisation of R&D in the production process, will lead to the manufacture of superior and globally competitive products.

Background

The holding of the R&D Survey was a culmination of past efforts by Council of elevating the role and importance of the SME and Cooperatives sector since 2017, when it held the 11th Zimbabwe International Research Symposium under the theme, "Research for Unlocking Entrepreneurship: Bridging the Gap." The priming of entrepreneurs, and the nexus with research, at an international forum such as ZIRS already placed the important role that entrepreneurs and inadvertently SMEs and cooperatives play in the national economy. In successive years, Council built the momentum towards the holding of a national R&D Survey through various programmes aimed at capacity building and consensus building and relationship building.

Consensus building were the public events and engagements held by Council in advocating the need for the entrepreneurs/SMEs and research nexus. At capacity building level, under the Science Granting Councils Initiative, staff engaged in training on the conduct of R&D surveys, which capacitated and enabled them to undertake the survey, other members who were part of the training were drawn from the RCZ Rapid Results Initiative (RRI) Technical Working Group on R&D and organisations invited by RCZ for training under the auspices of the SGCI. Council also strategically engaged various organisations vital to the execution of the Survey, with the foundational steering committee being formed in 2019, to oversee the implementation of the survey. Such stakeholders, and in recognition of their technical expertise and influence, were drawn from relevant government ministries and departments with a bearing on the execution of the survey. The Steering Committee brought to focus the scope of work to be undertaken by the team in executing the survey and the modus operandi.

Formation of Survey Steering Committee

RCZ organised the first R&D Survey Steering Committee Meeting on 30 May 2019. Major outputs of the Meeting included adoption of the implementation plan and formation of Sub-Committees. A budget provision of \$1.3 million was made to meet costs for meeting and training venues, publicity, data collection and analysis, and publication of results. On the implementation plan six areas adopted were on organisational awareness and approval, documentation and procurement of materials, communication plan, training and data collection, evaluation and full survey roll-out, and lastly feedback and results.

Three Sub-Committees namely Technical, Communications and Administration were formulated to execute the work at hand. Specific tasks to be carried by the Sub-Committees included design of the survey instruments and methodology, publicising the survey, dissemination of questionnaire, data collection and

analysis. Sub-Committees would then report to the Steering Committee starting after completion of the pilot survey.

A pilot survey, which was preceded by a training workshop attended by SMEs representatives on 21 June 2019 was held to test the survey instruments and questionnaires before full roll-out. Respondents who were representing the country's ten provinces were given up to 1 July 2019 to submit completed questionnaires. Questionnaires for the comprehensive survey were then administered by 26 July 2019 after training of the SMEs from their respective provinces. Prior to the Steering Committee Meeting, RCZ had convened a meeting with the Zimbabwe National Statistics Agency to set out the survey implementation framework.

Roll out of the R&D Survey

The R&D Survey was carried out from 22 July to 6 August 2019 across Zimbabwe's ten provinces, beginning with Matebeleland North, (Lupane), Bulawayo, Matebeleland South, (Gwanda), Midlands, (Gweru), Masvingo, Manicaland, (Mutare), Mashonaland East, (Marondera), Harare, Mashonaland Central, (Bindura), and Mashonaland West, (Chinhoyi).

Outcomes of the R&D Survey

The report, detailing the findings of the R&D survey will be made available in early 2020.

RESEARCH PRIORITISATION

Zimbabwe National Geospatial and Space Agency

Promoting Space Science for National Transformation

The Zimbabwe National Geo Spatial Agency, (ZINGSA) was launched by the His Excellency, the President of the Republic of Zimbabwe, Cde Dr E.D. Mnangagwa in July 2018. The motivation for the ZINGSA project is to allow Zimbabwe to catapult into the space age, and utilise space sciences in precisely managing, monitoring and forecasting areas of science and human endeavour such as agriculture, mining, land use, wildlife management and conservation, disease surveillance and prevention, and renewable energy. The formation of ZINGSA was against the backdrop of Zimbabwe's industrialisation and modernisation drive, and in this case, transformation would be aided through the application of space technologies.

The seven research projects funded under the ZINGSA programme have demonstrated the capacity to fulfil one of the key deliverables of the RCZ's Strategic Plan, which is to promote demand-driven research.

Implementation of Research Projects Funded Under ZINGSA

The implementation of the Zimbabwe National Geospatial Agency is in pursuit of promoting demand-driven research for wealth creation and the sustainable development of Zimbabwe by 2030. The seven geospatial and aeronautical space sciences technology projects are meant to provide Zimbabwe with geospatial capability to improve systems and enhance Zimbabwe's technological edge in the area of geospatial technology. The projects are concerned with developing a revised agro-ecological zones map, development of Geo-databases for 99 year leases for allocated farms, inform fertiliser requirement research for different soil types, develop geological minerals map focusing on lithium and graphite, develop a malaria and bilharzia prevalence map, develop a solar potential map, and to develop a database for wildlife tracking in Zimbabwe's national parks and wildlife conservancies.

Implementation of the seven geospatial and aeronautical space sciences technology projects under the Zimbabwe National Geospatial Space Agency (ZINGSA) dovetails with KRAs on research results utilisation, and research promotion, direction, supervision and coordination.

During the reporting period, three of the seven projects made steady and commendable progress, and are at 90% completion. These are:

- i) Quantifying Solar and Biomass Output and Distribution,
- ii) Matching Fertiliser Recommendations to Soil Types, and
- iii) Revision of Agro - Ecological Zones.

The major milestones in the implementation of the seven projects are:

- (i) The first 100 days of the ZINGSA projects ending 27th February 2019 were concluded with a projects' appreciation visit by inspectors of Government priority projects from the Public Service Commission (PSC) and Office of the President and Cabinet (OPC). Three project teams namely: Agro-Ecological Zone Mapping, Fertiliser Recommendations and the Solar and Biomass projects made presentations to the delegates. The Meeting held at UZ was attended by the Acting Vice Chancellor Professor P Mapfumo as head of the implementing institution; ZINGSA projects technical expert and the project team leaders. The inspectors appreciated the practicality and importance of the projects, in spearheading economic transformation in the country despite the challenges such as shortage of foreign currency to import research equipment. A commitment was made by the inspectors to take up the challenges to the relevant offices.
- (ii) The projects on Matching Fertiliser to Soil Types in Zimbabwe, and Quantifying Solar and Biomass Output and Distribution over Zimbabwe, were progressing very well, while performance of the Agro-ecological Zone Mapping Project, Mapping of A1 and A2 Farms, the Minerals and the Wildlife Conservation Projects was moderate.
- (iii) Institutional collaborations towards progress of the projects was evident, with for example the Agro-ecological project based at Bindura University of Science Education, being given a project vehicle by the University of Zimbabwe.
- (iv) The project on the epidemiology of malaria delayed commencement as they awaited Government approval on changed methodology which approval was granted on 27 February 2019. The project therefore resumed on 8 March 2019.

Hosting of the Zimbabwe Space Technology Celebrations

In collaboration with the Ministry of Higher and Tertiary Education, Innovation, Science and Technology Development (MHTEISTD), RCZ jointly coordinated the hosting of the Space Technology Celebrations. The celebrations held on 9 December 2019 at the University of Zimbabwe followed the end of the 3rd 100-day cycle in September 2019 and subsequent roll over into the 4th 100 days. The platform gave research teams the opportunity to report on progress over the last 300 days. Stakeholders were appraised on the plans to completion for the 4th 100 days.

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Professor Amon Murwira, was Guest of Honour at the World Space Celebrations held at the University of Zimbabwe

The Honourable Minister of HTESTD, Professor dr A. Murwira, advocated continued use of earth observation technologies as a decision making support tool in all sectors of the economy.



World Space Celebrations were hosted by the Ministry of Higher and Tertiary Education, in collaboration with RCZ. The event was held at the University of Zimbabwe

PROJECTS FUNDED UNDER THE NATIONAL RESEARCH PRIORITIES

Funding of Research Projects in the National Research Priority Areas (NRPAs)

In line with the thrust to promote and fund demand-driven research in 2019, RCZ funded three projects under the 2018 RCZ Open Call for Proposals: 'Prototyping or Commercialisation to Transform Zimbabwe's

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Economy into a Middle-Income Economy by 2030.' The projects are “Chryso-Tar Modified for Road Surfacing and Rehabilitation”; “Hybrid Vertical Axis Wind Turbine Suitable for Zimbabwe”; and “Towards Improved Indigenous Goat Productivity and Genetics through Selective Breeding in Zimbabwe”. The projects are being administered by the Ministry of Transport and Infrastructural Development (MOTID), Harare Institute of Technology (HIT) and Lupane State University (LSU) respectively. Implementation of the three projects is ongoing.

Implementation of the RCZ-ZERA MOU

RCZ and the Zimbabwe Energy Regulatory Authority, (ZERA) entered into an MOU in July 2015. The MOU, running for five years until July 2020, requires RCZ and ZERA to collaborate on funding research in Energy, Renewable Energy and Energy Efficiency. As such, RCZ and ZERA put out a joint Call for Research Proposals in March 2019, in the areas of Renewable Energy Systems and Integration, Reliability in Energy Production and Delivery, and Energy Efficiency. The Call closed on 15 May 2019.

Since the signing of the Agreement, three projects from the University of Zimbabwe (UZ), the Tobacco Research Board (TRB) and the Harare Institute of Technology (HIT) respectively, were funded. Projects from TRB and UZ were successfully completed and concluded. The project from HIT is now entering Phase 2, and is expected to be complete by 2020.

PUBLICITY AND EXTERNAL ENGAGEMENT

Exhibitions

Zimbabwe International Trade Fair

The department achieved stakeholder engagement through the participation at the 60th edition of the Zimbabwe International Trade Fair (ZITF) 2019, held from 23-27 April, under the theme: “Propagating Industrial Growth through Trade and Investment”. The theme was a call for industry and commerce to explore and forge synergies that promote trade and investment in line with the country's Vision of becoming a Middle-Income Economy by 2030. For RCZ, the theme resonated with the efforts to break silos and promote synergies as encapsulated in the 2019-2023 Strategic Plan. The theme was relevant to RCZ building from the thrust of the 12th Zimbabwe International Research Symposium which focused on enhancing the nexus between Research and Industry. Four staff members attended the 2019 ZITF edition.



RCZ Executive Director, Mrs Susan Muzite (Right) interacts with clients at the ZITF



The RCZ Exhibition Stand

Zimbabwe Agricultural Show

The 109th edition of the Zimbabwe Agricultural Show (ZAS) 2019 was held from 19 to 24 August 2019, at the Harare showgrounds under the theme “**Technology, Innovation, and Modernisation: Adopt. Accentuate, Accelerate**”. The theme resonated with the National Research Priority Area (NRPA) on Sustainable Environment and Resource Management. Sustainable agricultural development being one of the goals of the NRPA.

RCZ's initiatives on promoting technology, innovation and modernisation within the agricultural sector were anchored on three clusters namely

- a) Use of Technology and Innovation in Agricultural Research
- b) Research-Product/ Service Value Chain, and c) Research Promotion and Regulation.

STAKEHOLDER ENGAGEMENT

National Manpower Advisory Council (NAMACO) Professional Bodies Workshop

RCZ participated at a workshop for Professional Bodies and Associations. The meeting, organised by the National Manpower Advisory Council (NAMACO) was convened to get Stakeholder input for the formulation of the Council's Strategic Plan. Key elements were for participants to provide thoughts on new sectors and corresponding emerging trades. Participants highlighted the need for matching training and professions/jobs thereof. The meeting was a platform for RCZ to buttress the importance of Industry and Academia linkages driving towards the promotion of demand driven research in terms of the Strategic Plan.

Commissioning of the India-Africa Incubation Centre

RCZ attended the official commissioning of the India-Africa Incubation Centre on 20th February 2019 in Waterfalls Harare on invitation from the Ministry of Women Affairs, Community, and Small & Medium Enterprises Development. His Excellency the President of the Republic of Zimbabwe Cde Dr E.D. Mnangagwa, was the Guest of Honour at the event, and in his speech, called for greater collaboration and linkages between incubation hubs, research institutes, academia and entrepreneurs in the design, development and commercialisation of new products which address Zimbabwe's socio economic needs.

The Centre was built with support of US\$1 million extended by the Indian Government to support start-ups. The Incubation centre has many different technologies and to date, it has two different student intakes since 2017. These students are taught machine operation, business management, and marketing to enable growth and survival of their businesses. The Centre seeks to reduce the country's import bill by promoting local production.

Peer Review Meeting on National Statistics Systems

RCZ participated, as a key stakeholder, at the Peer Review Meeting on National Statistics Systems coordinated by the Zimbabwe National Statistics Agency (ZimStat). The Meeting held on 20 March 2019 was timely because it coincided with RCZ's initial efforts on formulating the road map of a National R&D Survey. Stakeholders invited included the Zimbabwe Revenue Authority (ZIMRA), Zimbabwe National Chamber of Commerce (ZNCC), the National Social Security Authority (NSSA), Confederation of Zimbabwe Industries (CZI), and the University of Zimbabwe (UZ) Departments of Statistics. RCZ's contribution to the National Statistics Systems (NSS) was highlighted through its programmes which include the National Research Database of Zimbabwe, Registration of Foreign Researchers, and Research

Funding. As a producer and user of information pertaining to shaping the National Research Agenda, RCZ's thrust on harnessing statistical data collected through the NRDZ is of national importance. The statistics from the NRDZ can provide insights on the quantum of research being conducted in the country at a particular time and in respective fields under the National Research Priority Areas. Currently, the NRDZ registered users are over 2000 whilst 5986 articles have been uploaded on the database. The database has since been linked to institutional repositories to make it a one-stop-shop after signing Memoranda of Understanding with universities. ZimStat appreciated the scope to collaborate with RCZ.

RCZ shared, at the meeting its role on research funding and registration of foreign researchers. The statistical information on research funding relative to the Gross Domestic Product (GDP) has a significant contribution towards a functional NSS. Following the adoption of the 2019-2023 Strategic Plan, ZimStat noted that RCZ would be conducting an R&D Survey in the year 2019. RCZ obtained ZimStat's buy-in for the two organisations to work collaboratively on the survey.

South Africa Network for Biosciences (SANBio) Finnish Southern Africa II (FISA) Stakeholders Workshop

RCZ participated, as a panellist, at the South Africa Network for Biosciences (SANBio) Finnish Southern Africa II (FISA) Stakeholders Workshop organised by the National Biotechnology Authority (NBA) on 6 March 2019 at the Holiday Inn Harare. The main objective of the workshop was to showcase results and impacts of research projects funded by SANBio in Zimbabwe. Stakeholders deliberated on the critical issues guided by the topic "Critical Issues to be Addressed in the Regulatory Framework; how can we further support these initiatives". The Biomedical Research and Training Institute (BRTI), MCAZ, and the Ministry of Higher and Tertiary Education Science and Technology Development (MHTESTD) were the discussants.

The panellists brought forward wide ranging issues, including the need to promulgate regulations for new and emerging technologies in the medical field, and the need to fund research on new health technologies.

Participation under the Science Granting Councils Initiative (SGCI)

Bid Proposal to Host 2020 Africa Regional Meeting of the Global Research Council

Towards the end of 2019, work commenced on the production of a bid proposal for Zimbabwe, together with Burkina Faso and Botswana to host the 2020 Africa Regional Meeting of the Global Research Council and the SGCI Annual Forum, with Zimbabwe as host and the latter two as co-hosts. Burkina Faso was chosen because of the need to promote country collaboration in the face of linguistic and other cultural barriers; and Botswana because of its historic ties and proximity with Zimbabwe, and areas of other joint collaboration at country level. Zimbabwe will also provide the impetus for Botswana to be a fully-fledged member of the Science Granting Councils Initiative. The meeting will see the gathering of the 15 countries within the SGCI, as well as host the Annual Forum. The bid will be submitted in early January 2020.

Activities under Phase 1

RCZ participated in the Science Granting Councils Initiative, (SGCI) Phase 1, which was initiated in March 2015, and which will close in March 2020. During the five-year phase, which is drawing to a close, RCZ managed to consolidate its relations with collaborating partners in the following areas.

- (I) With Malawi, RCZ aims to embark on a collaborative exchange research programme in promoting Agricultural Biotechnology
- (ii) With Botswana, the groundwork was put in place for collaboration in the area of Minerals Technology
 - (iii) With Mozambique, the focus of the collaborative partnership is on research in Renewable Energy; and
 - (iv) With Namibia, the focus is on research collaboration in the Veterinary Sciences

Key activities under SGCI Phase 1, were collaborative visits, with a view to promoting the understanding of the scope of work with partners in countries such as Malawi, where already a Memorandum of Understanding was signed for cooperation in the area of agricultural biotechnology. RCZ undertook an exchange visit to the Malawi National Commission on Science and Technology, in Lilongwe in September of 2019, and NCST made a reciprocal visit to RCZ in October 2019, combined with a Researchers Interface meeting held at the Crowne Plaza Monomotapa Hotel in Harare. The workshop convened scientists from Zimbabwean universities and research and development centres, and was facilitated by resource persons from RCZ and the Science Granting Councils Initiative. The Reciprocal visit by the NCST was a learning exchange visit, aimed at learning and sharing on management of research, science and technology. The Researcher's Interface meeting, provided a platform for scientists in the area of agriculture biotechnology to also share and identify areas of potential collaboration.

As Phase 1 of the SGCI draws to a close, more concerted efforts will be put towards the implementation, and consolidation of Phase 1 activities, which will proceed into Phase 2.

Towards the end of 2019, the Phase 2 of the SGCI was put into operation. Phase 2 will see the heightened work in consolidating and operationalisation of the bilateral research collaborations with Botswana, Malawi, Mozambique and Namibia.

Meetings and Workshops Attended

As part of RCZ's association within the SGCI, staff attended several workshops hosted by the SGCI.

Africa Regional Meeting of the Global Research Council, Dar es Salaam, Tanzania

RCZ attended the annual Africa Regional Meeting of the Global Research Council which was held in Dar es Salaam, Tanzania from in November 2020. The RCZ was represented by the Executive Director, Mrs Susan Muzite, and Mr Courage Mpofo, Technical Officer under the Research Control and Coordination department.

Science Technology and Innovation (STI) Policy Training Workshop for Science Granting Councils in Sub-Saharan Africa

The strategic outcome on increasing organisational efficiency was achieved under the SGCI framework through attending the Science Technology and Innovation (STI) Policy Training Workshop for Science SGCs in Sub-Saharan Africa from 3 to 6 March 2019 in Nairobi, Kenya. RCZ was represented by the Finance and Administration Manager, Mrs R. Tamangani. The workshop was held in collaboration with the African Centre for Technology Studies (ACTS). Deliverables for the workshop included the review of existing innovation system roadmaps, the policy making process, innovation theory, policy and practice including models of innovation and conceptualizing science, technology and innovation. Key take away points from the workshop are the enhancement to the delivery of the RCZ's mandate in relation to

coordination, direction and supervision of the research enterprise in Zimbabwe through a better informed STI policy making process, STI policy advisory and awareness to emerging trends and models in the global research fraternity.

Workshop on Establishment of Oliver Reginald (OR) Tambo Research Chairs

In the context of the KRA on information dissemination, RCZ was represented by the Programmes Coordination Consultant at the Workshop on the Regional Initiative for the establishment of O.R. Tambo Research Chairs held under the auspices of the SGCI. The workshop, held in Mozambique from 30 to 31 January 2019, deliberated on how to nurture young scientists, attract and retain expert and competent researchers in Africa. The main purpose of the workshop was to harmonise procedures for the Research Chairs in line with the National Research Foundation (NRF) of South Africa's directive, as a funding partner, for SGCs to submit proposals for Research Chairs.

Consultative Meeting with other Science Granting Councils on the Initiatives' Phase 2 Implementation Plan

Building on previous efforts, RCZ attended a two-day consultative meeting under the SGCI. The Meeting was hosted by the SGC from Uganda, namely the Uganda National Council of Science and Technology (UNCST) from 4 to 5 April 2019. The meeting was funded by UK's Department for International Development (DFID), International Development Research Centre (IDRC) of Canada, Swedish International Development Cooperation Agency (SIDA) and the National Research Foundation (NRF) of South Africa. The funders resolved to extend the lifespan of the initiative beyond the original five years expiring in 2020, which constituted Phase 1. Cognisant of the need to deepen the initiatives' impact of enhancing the capacity of SGCs, a budgetary allocation of 15 million Canadian Dollars has been availed for implementation of Phase 2. Of this amount, 71% will be channeled towards research. RCZ took the opportunity to strengthen its collaborations with SGCs from Malawi, Mozambique and Botswana riding on the new conducive environment. Consensus was reached between the funders and SGCs on technical areas such as the modalities for disbursement of funds. The consultative meeting has also provided RCZ with a platform to enter into collaborations with Kenya and South Africa in the field of Space Science.



The Zimbabwe and Malawi delegation, with RCZ Executive Director, Mrs Susan Muzite, fifth from right, the Acting Director General of NCST Mr Alick Manda, and Dr Rebecca Hanlin, from IDRC, during the RCZ exchange visit to NCST in Lilongwe

REGISTRATION OF FOREIGN RESEARCHERS

In fulfilment of Section 27 of the Research Act, [Chapter 10:22], RCZ continued with its sole mandate of registering Foreign Researchers. In registering Foreign Researchers, RCZ worked to promote national interest, and the goals of the National Research Agenda and priorities derived therefrom. A total of 294 registration certificates were issued in 2019, a slight increase from 287 issued in the preceding year 2018. RCZ received 173 applications, and out of those, three applications were not approved.

The ensuing figures provide an overview of statistics translating activities of the Foreign Researchers' Committee, during the period under review.

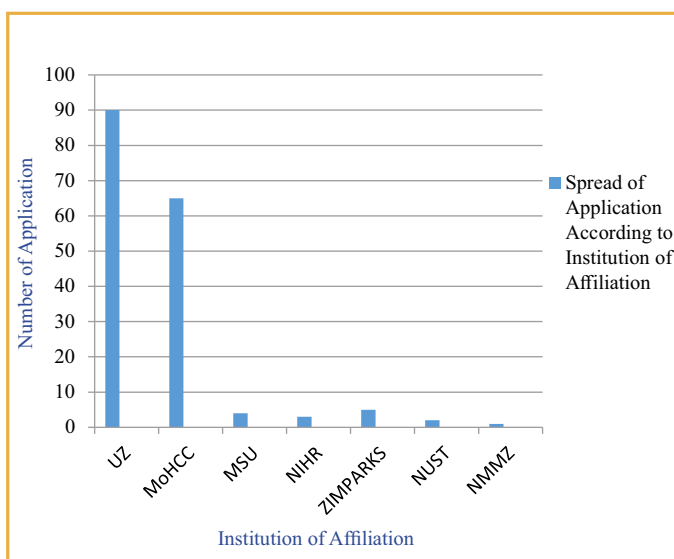


Figure 1 illustrates the spread of applications according to Institution of Affiliation.

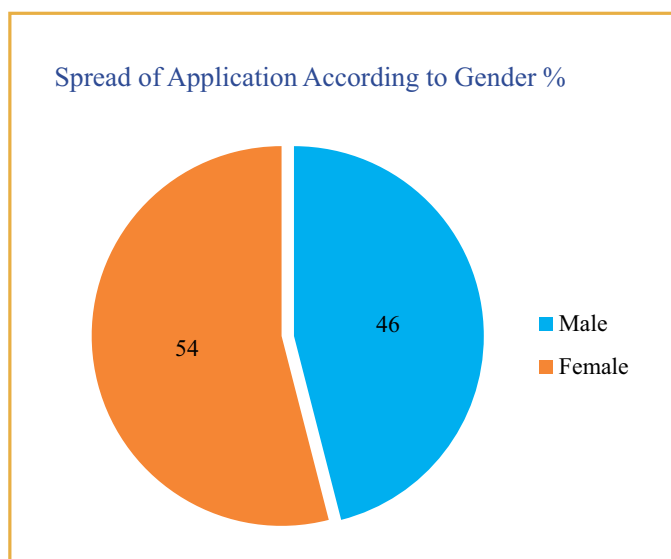


Figure ii shows the spread of applications of Principal Investigators by Gender

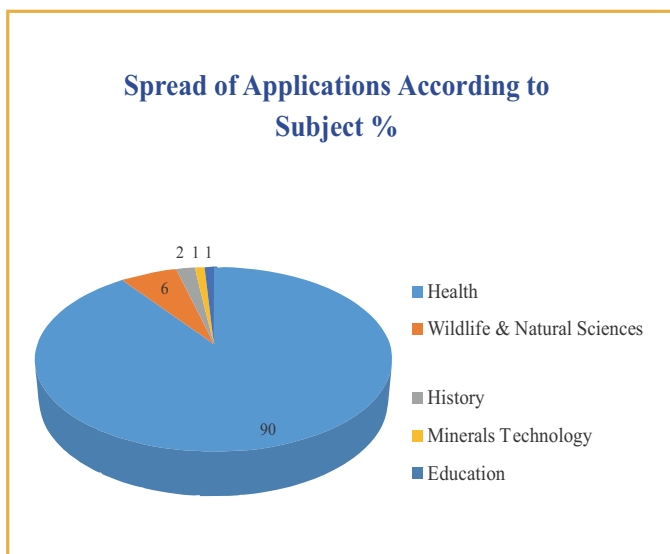


Figure iii illustrates the spread of applications according to subject

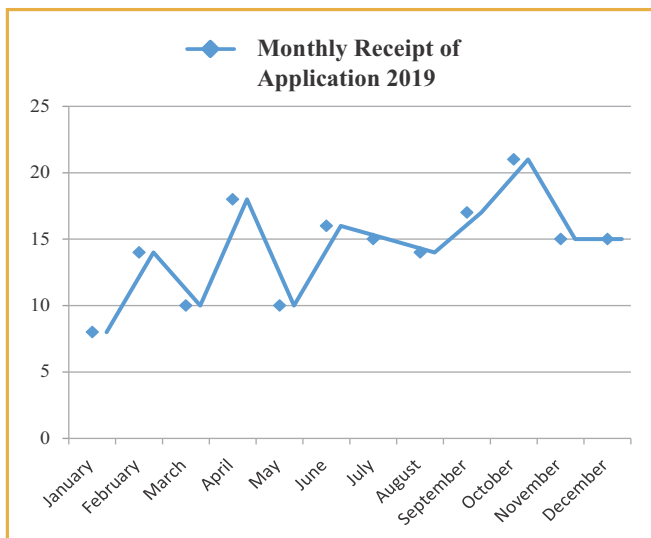


Figure iv shows the monthly receipt of applications during the period under review, (2019).

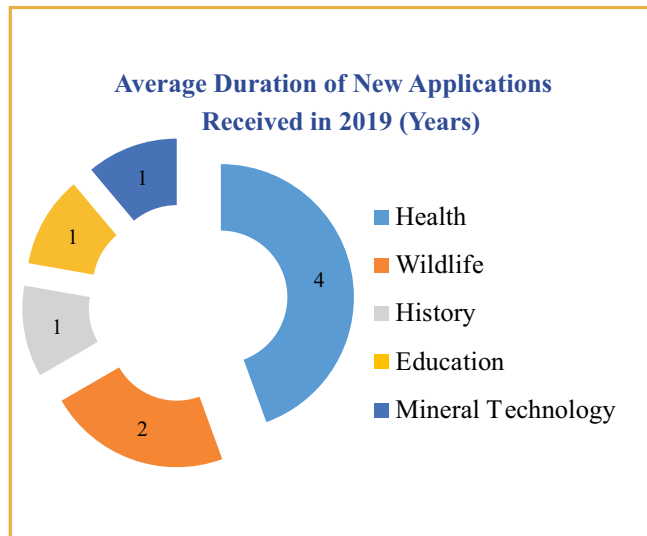


Figure v shows the average duration of new applications for Foreign Researchers received in 2019 by the number of years.

Staff Establishment

RCZ obtained Treasury concurrence in May 2019 for recruitment of seven posts, namely the Research Prioritisation, Control and Coordination Manager, Internal Audit Officer, Chief Accountant, Marketing and External Relations Manager, Bookkeeper, 2 x Technical Officers and an External Relations Officer. The positions were all filled and the establishment now stands at 19. However, out of the approved establishment of 33 personnel there is still a vacancy gap of 14. Engagements with Treasury are on-going for concurrence to fill vacant posts.

Training

Seminars for State-Owned Enterprises Executives of Developing Countries

Building on the cordial relations between Zimbabwe and the People's Republic of China, and on the need to further socio-economic ties, the Office of the President and Cabinet (OPC) facilitated participation of the country at the Seminars for State-Owned Enterprise (SOE) Executives of Developing Countries. These Seminars were conducted in China from 29 November 2019 to 20 December 2019. RCZ was represented by one of its Technical Officers, Mr Courage Mpofu, whilst three other participants from Zimbabwe were from the State Enterprises Reform Agency (SERA), Radiation Protection Authority of Zimbabwe (RPAZ), and the Procurement Regulatory Authority of Zimbabwe (PRAZ).

The four organisations including RCZ are agencies within OPC. The Seminars were attended by forty-four (44) representatives from fifteen developing countries mainly Africa and Asia. The Seminars sponsored by the Ministry of Commerce of the People's Republic of China and organised by Shanghai Business School, enhanced the sharing of ideas and experiences of China in enterprise development and management. RCZ will prioritise funding of research on SOEs development and management under the National Research Priority Area (NRPA) on Social Sciences and Humanities. Potential also exists for i) RCZ collaborating with SERA on funding research on enterprise development and management, and ii) Identification of opportunities for collaboration with like-minded institutions from the People's Republic of China in the broader area of Research, Science, Technology and Innovation.

SGCI Research Management Certificate Courses in Collaboration with Witwatersrand University

Under the auspices of the SGCI which seeks to improve the capacity of SGCs on management of research, RCZ staff members took courses offered by the Initiative. The six courses were Fundamentals of Research Management, Research Ethics and Integrity, Gender in Science, Technology and Innovation, Programme Evaluation, Intellectual Property, Technology Transfer and Commercialisation and Research Grants and Contracts Management. These courses were offered by the University of the Witwatersrand, through the Southern African Research & Innovation Management Association (SARIMA).

Table 5: Courses Attended by RCZ Staff

Department	Courses Attended	No . of Secretariat Staff Trained	Average % Pass Rate
Research Prioritisation, Control and Coordination	Fundamentals of Research Management	2	80
	Programme Evaluation	1	
	Research Grants and Contracts Management	1	
	Intellectual Property, Technology Transfer and Commercialisation	1	
	Research Ethics and Integrity	2	
	Gender in Science, Technology and Innovation	2	
Finance and Administration	Research Grants and Contracts Management	1	
	Programme Evaluation	1	
	Intellectual Property, Technology Transfer and Commercialisation	2	
Total		11	

The Audit and Risk Management committee recommends to the Board appointment of External Auditors. Further, it receives and considers on behalf of the Council internal and external Audit Reports and recommends courses of action. The Committee reviews management processes with the ultimate objective to improve efficiency and compliance with organisational controls, legislative frameworks, policies and procedures.

Activities for 2019

The committee held three out of three scheduled meetings. The observations, risks, and recommendations of internal and external audit reports were considered and actioned as required. An abridged version of the Audited 2019 Financial Statements is presented in the succeeding pages.

Report on the Audit of the Financial Statements

Adverse Opinion

I have audited the accompanying financial statements of the Research Council of Zimbabwe, as set out on pages 7 to 26 which comprise the statement of financial position as at December 31, 2019, and the statement of profit or loss and other comprehensive income, the statement of changes in equity and statement of cash flows for the year then ended, and the notes to the financial statements, which include a summary of significant accounting policies and other explanatory notes.

In my opinion, because of the significance of the matter discussed in the Basis for Adverse Opinion section of my report, the accompanying financial statements do not present fairly the financial position of the Research Council of Zimbabwe as at December 31, 2019, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

AUDIT REPORT IN RESPECT OF THE FINANCIAL STATEMENTS FOR THE RESEARCH COUNCIL OF ZIMBABWE FOR THE YEAR ENDED DECEMBER 31, 2019

Basis for Adverse Opinion

Non-compliance with International Accounting Standard (IAS) 21, “The effects of changes in foreign exchange rates”

The Council translated its comparative financial statements including transactions and balances for the period up to February 22, 2019 denominated in USD at a rate of 1:1 to the Zimbabwean dollar (RTGS or ZWL). The transactions during this period were not converted to RTGS or ZWL using an appropriate exchange rate that reflects the economic substance of its value as provided for by International Accounting Standard 21, “The Effects of Changes in Foreign Exchange Rates”. The Council applied the legal exchange rate of 1:1 as pronounced through Statutory Instrument 33 of 2019.

Subsequent to February 22, 2019 the Council applied interbank exchange rates which came into existence, through Exchange Control Directive RU 28 of 2019 issued by the Reserve Bank of Zimbabwe (RBZ) and was initially pegged at a rate of 2.5. This was after a period of foreign currency scarcity and constrained exchangeability of bond notes, coins and electronic money to other foreign currencies. No assessment was carried out to show appropriateness of the interbank rate to the existing economic environment. The interbank rate and the exchange rate of 1:1 applied on comparative amounts does not represent the price that can be received for foreign currency as many were unable to access foreign currency through the interbank market and immediate delivery of foreign currency could not be guaranteed. Therefore, use of the interbank exchange rate alone fails to meet the criteria for appropriate exchange rate and to achieve fair presentation of the financial statements. As a result, the impact of the Council’s inability to comply with IAS 21 has been determined as significant. The effects on the financial statements are considered material and pervasive to the financial statements as a whole.

I conducted my audit in accordance with International Standards on Auditing (ISAs) and International Standards of Supreme Audit Institutions (ISSAIs). My responsibilities under those standards are further described in the Auditor’s Responsibilities for the Audit of the Financial Statements paragraph of my report. I am independent of the Council in accordance with the ethical requirements that are relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with these requirements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my adverse opinion.

Report on Other Legal and Regulatory Requirements

In my opinion, the financial statements have, in all material respects, been properly prepared in compliance with the disclosure requirements of the Research Act [Chapter 10:22] and other relevant Statutory Instruments.

February 18, 2021.

M. Chiri
M. CHIRI (MRS),
AUDITOR – GENERAL.

RESEARCH COUNCIL OF ZIMBABWE
STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2019

	Note	Inflation adjusted 31-Dec-2019 ZWL	Inflation adjusted 31-Dec-2018 ZWL	Historical cost 31-Dec-2019 ZWL	Historical cost 31-Dec-2018 ZWL
ASSETS					
Non current assets		5 362 515	2 248 883	7 763 196	362 061
Property, plant and equipment	4	5 362 515	2 248 883	7 763 196	362 061
Current assets		8 891 471	12 348 296	8 754 260	1 988 039
Inventories	5	167 592	40 757	30 381	6 562
Prepayments	6	-	13 659	-	2 199
Cash and cash equivalents	7	8 723 879	12 293 880	8 723 879	1 979 278
Total assets		14 253 986	14 597 179	16 517 456	2 350 100
RESERVES AND LIABILITIES					
Reserves		13 328 410	13 323 199	16 314 956	2 144 993
Accumulated fund		10 652 307	12 951 530	10 198 462	2 085 156
Revaluation reserve		2 676 103	371 669	6 116 494	59 837
Deferred income	8	858 048	1 014 373	134 972	163 311
Current liabilities		67 528	259 607	67 528	41 796
Payables	9	19 138	2 876	19 138	463
Provisions	10	48 390	256 731	48 390	41 333
Total reserves and liabilities		14 253 986	14 597 179	16 517 456	2 350 100

15/02/2021

15/02/2021

15/02/2021



E. MUKOVA,
MBA, ACIS, ACCA, RPAcc,
(Chief Accountant).



S. MUZITE,
(Executive Director).



DR. M. J. TUMBARE,
(Board Chairman).

RESEARCH COUNCIL OF ZIMBABWE

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

FOR THE YEAR ENDED DECEMBER 31, 2019

	Note	Inflation adjusted 31-Dec-2019 ZWL	Inflation adjusted 31-Dec-2018 ZWL	Historical cost 31-Dec-2019 ZWL	Historical cost 31-Dec-2018 ZWL
Revenue		26 253 098	20 637 519	12 132 255	3 322 579
Government grant	11	19 554 643	19 233 679	8 517 413	3 096 565
Registration fees		4 935 102	947 906	2 149 582	152 610
Deferred income	8	156 324	169 643	28 339	27 312
Other income	12	1 607 028	286 291	1 436 921	46 092
Less expenses		(9 106 853)	(8 912 165)	(4 018 949)	(1 434 832)
Administration expenses	13	(4 734 361)	(1 969 093)	(2 114 424)	(317 018)
Payroll costs	14	(1 994 787)	(2 226 457)	(868 869)	(358 453)
Research grants	15	(2 377 705)	(4 716 615)	(1 035 656)	(759 361)
Net monetary loss		(19 445 468)	-	-	-
Surplus/(deficit) for the year		(2 299 223)	11 725 354	8 113 306	1 887 747
Other comprehensive income		2 304 434	-	6 056 657	-
Revaluation gain		2 304 434	-	6 056 657	-
Total comprehensive income		5 211	11 725 354	14 169 963	1 887 747

RESEARCH COUNCIL OF ZIMBABWE
STATEMENT OF CHANGES IN RESERVES
FOR THE YEAR ENDED DECEMBER 31, 2019

	Inflation adjusted		
	Accumulated fund	Revaluation reserve	TOTAL
	ZWL	ZWL	ZWL
Balance as at January 1, 2018	1 226 176	371 669	1 597 845
Total comprehensive income	11 725 354	-	11 725 354
Balance as at December 31, 2018	12 951 530	371 669	13 323 199
Balance as at January 1, 2019	12 951 530	371 669	13 323 199
Total comprehensive income	(2 299 223)	2 304 434	5 212
Balance as at December 31, 2019	10 652 307	2 676 103	13 328 410

	Historical cost		
	Accumulated fund	Revaluation reserve	TOTAL
	ZWL	ZWL	ZWL
Balance as at January 1, 2018	197 409	59 837	257 246
Total comprehensive income	1 887 747	-	1 887 747
Balance as at December 31, 2018	2 085 156	59 837	2 144 993
Balance as at January 1, 2019	2 085 156	59 837	2 144 993
Total comprehensive income	8 113 306	6 056 657	14 169 963
Balance as at December 31, 2019	10 198 462	6 116 494	16 314 956

AUDITED ABRIDGED FINANCIAL STATEMENTS

RESEARCH COUNCIL OF ZIMBABWE
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2019

	Note	Inflation adjusted 31-Dec-2019 ZWL	Inflation adjusted 31-Dec-2018 ZWL	Historical cost 31-Dec-2019 ZWL	Historical cost 31-Dec-2018 ZWL
CASH FLOWS FROM OPERATING ACTIVITIES					
Net cash utilised by operating activities		(2 983 761)	11 853 548	7 268 384	1 908 385
Operating income before working capital changes		(2 889 261)	11 853 957	7 271 329	1 908 451
Surplus/(deficit) for the year		(2 299 223)	11 725 354	8 113 306	1 887 747
Adjustments for:		(590 038)	128 604	(841 977)	20 704
Increase/(decrease) in provision		7 057	12 940	7 057	2 083
Net foreign exchange difference		(1 303 851)	-	(1 303 851)	-
Effects of changes in monetary value		(217 812)	-	-	-
Depreciation charge for the year		1 127 867	298 281	504 631	48 022
Amortised grant		(156 324)	(169 643)	(28 339)	(27 312)
Interest earned		(46 975)	(12 975)	(21 476)	(2 089)
Changes in Working Capital		(94 500)	(410)	(2 945)	(66)
Decrease/(increase) in inventories	5	(126 834)	5 099	(23 819)	821
Decrease/(increase) in prepayments	6	13 659	(3 484)	2 199	(561)
(Decrease)/increase in other payables	7	18 675	(2 025)	18 675	(326)
CASH FLOWS FROM INVESTING ACTIVITIES					
Interest received		46 975	12 975	21 476	2 089
Purchase of property, plant and equipment	4	(1 937 065)	(631 123)	(1 849 110)	(101 608)
Net increase in cash and cash equivalents		(4 873 851)	11 235 400	5 440 750	1 808 866
Net foreign exchange difference		1 303 851	-	1 303 851	-
Cash and cash equivalents at beginning of the year		12 293 880	1 058 479	1 979 278	170 412
Cash and cash equivalents at end of the year	7	8 723 879	12 293 880	8 723 879	1 979 278

RESEARCH COUNCIL OF ZIMBABWE



Leadership, Innovation and Development



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