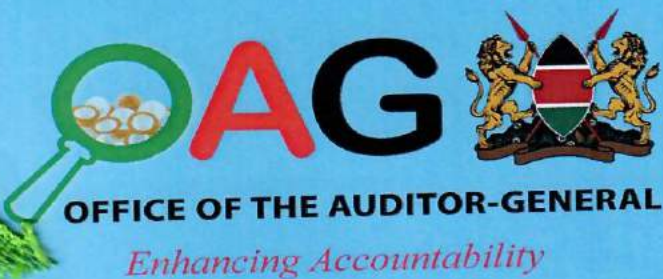


REPUBLIC OF KENYA



**REPORT**

**OF**

**THE AUDITOR-GENERAL**

**ON**

**KENYA AGRICULTURAL AND LIVESTOCK  
RESEARCH ORGANIZATION**

**FOR THE YEAR ENDED  
30 JUNE, 2022**

31 MAR 2023

**RECEIVED**



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**KENYA AGRICULTURAL AND LIVESTOCK RESEARCH  
ORGANIZATION  
(KALRO)**

**ANNUAL REPORT AND FINANCIAL STATEMENTS**

**FOR THE FINANCIAL YEAR ENDING  
JUNE 30, 2022**

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Prepared in accordance with the Accrual Basis of Accounting Method under the  
International Public Sector Accounting Standards (IPSAS)



OFFICE OF THE CHIEF ACCOUNTANT  
IN CHARGE - PUBLIC ACCOUNTS  
REVENUE

**Kenya Agricultural and Livestock Research Organization**  
**Annual Report and Financial Statement for the year ended 30<sup>th</sup> June 2022**

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KENYA AGRICULTURAL AND LIVESTOCK RESEARCH ORGANIZATION  
ANNUAL REPORT AND FINANCIAL STATEMENT  
FOR THE FINANCIAL YEAR ENDING  
JUNE 30, 2022

Printed in Kenya at the Kenya National Printing House, Nairobi.  
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## **Table of Contents**

ABBREVIATIONS .....	iv
I. KEY ORGANIZATION INFORMATION AND MANAGEMENT .....	vi
II. THE BOARD OF MANAGEMENT .....	x
III. MANAGEMENT TEAM.....	xiv
IV. CHAIRMAN'S STATEMENT .....	xv
V. REPORT OF THE CHIEF EXECUTIVE OFFICER.....	xvii
VI. REVIEW OF KALRO PERFORMACE FOR FY 2021/2022.....	xix
VII. CORPORATE GOVERNANCE STATEMENT .....	xxxvii
VIII. MANAGEMENT DISCUSSION AND ANALYSIS.....	xli
IX. ENVIROMENTAL AND SUSTAINABILITY REPORTING STATEMENT.....	xliv
X. REPORT OF THE DIRECTORS .....	lvi
XI. STATEMENT OF DIRECTOR'S RESPONSIBILITIES .....	lvii
XII. REPORT OF THE INDEPENDENT AUDITOR FOR THE FINANCIAL .....	lviii
STATEMENTS OF KENYA AGRICULTURAL AND LIVESTOCK RESEARCH ORGANISATION(KALRO)	
XIII. STATEMENT OF FINANCIAL PERFORMANCE .....	1
XIV. STATEMENT OF FINANCIAL POSITION.....	2
XV. STATEMENT OF CHANGES IN NET ASSETS.....	3
XVI. STATEMENT OF CASHFLOWS .....	4
XVII. STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS .....	5
XVIII. NOTES TO THE FINANCIAL STATEMENTS .....	6
APPENDIX I .....	22
APPENDIX II .....	24
APPENDIX III.....	25
APPENDIX IV.....	26



## **ABBREVIATIONS**

AIA	Appropriation in Aid
AMRI	Agricultural Mechanization Research Institute
APVC	Agricultural Product Value Chains
ASA	American Society of Agronomy
ASAL	Arid and Semi-Arid Lands
BoM	Board of Management
CBPP	Contagious Bovine Pleuro-Pneumonia
CEO	Chief Executive Officer
CNA	Competence Needs Assessment
CS-APP	Climate Smart Agricultural Productivity Project
DUS	Distinctness Uniformity Stability
EAAPP	East African Agricultural Productivity Project
ECF	East Coast Fever
ERP	Enterprise Resource Planning
ESAMI	Eastern and Southern African Management Institute
FFS	Farmer Field Schools
GAP	Good Agricultural Practices
GCHERA	Global Consortium of High Education for Africa German Development Agency
GIZ	Gesellschaft für Internationale Zusammenarbeit
HRI	Horticulture Research Institute
ICWES	International Conference of Women Engineers and Sciences
IPSAS	International Public Sector Accounting Standards (IPSAS)
KALRO	Kenya Agricultural and Livestock Research Organization
KARI	Kenya Agricultural Research Institute
KEPHIS	Kenya Plant Health Inspectorate Services
KEVEVAPI	Kenya Veterinary Vaccines Production Institute
KCSAP	Kenya Climate-Smart Agriculture Project
MNLD	Maize Lethal Necrosis Disease
NPT	National Performance Trials
MoUs	Memorandum of Understandings
MT	Metric Tons
MTP	Medium Term Plan
NACOSTI	National Commission for Science, Technology and Innovation
NPT	National Performance Testing
NSRC	National Sericulture Research Centre
PCPB	Pest Control Products Board
PPR	Peste des Petits Ruminants
RVF	Rift Valley Fever
SSSEA	Soil Science Society of East Africa
ToTs	Trainer of Trainers
USAID-FtF	United States Agency for International Development - Feed the Future



### **Our Vision**

Excellence in agriculture and livestock research towards transformed livelihoods.

### **Our Mission**

To conduct agricultural research through application of science, technology and innovation to catalyse sustainable growth and development in agriculture and livestock Product Value Chains.

### **Organization Goal**

To contribute to the growth of the agricultural sector through research coordination and regulation; technology and innovation development; and catalyse transfer and utilization of agricultural research outputs.

### **Our Guiding Core Values**

KALRO will be guided by the following core values in its operations:

**a) Customer orientation**

The central focus of KALRO is to provide timely and responsive demand-driven research interventions aimed at addressing the needs of the customers within the agricultural sector. KALRO will achieve this by maintaining a culture that promotes responsiveness to customer needs.

**b) Professionalism**

KALRO will uphold high standards of excellence in the provision of services to their customers. One of the hallmarks of excellence is integrity and ethics in all areas of operation. In this regard, KALRO research outputs and recommendations will adhere to the highest standards of scientific rigour, ethics and sound evidence base.

**c) Innovativeness**

KALRO recognizes the need for innovation in order to be responsive to the agricultural sector challenges. In this regard KALRO commits to develop flexible and integrated solutions in-tandem with the needs of customers and stakeholders.

**d) Collaboration**

Given the multi-stakeholder interest that the agricultural sector attracts, KALRO is expected to collaborate and forge partnerships for the development of the sector in Kenya and beyond. KALRO will therefore endeavor to create beneficial opportunities for agricultural research and development.

**e) Environmental consciousness**

KALRO will ensure that the environment is conserved while discharging its mandate.

**f) Integrity**

KALRO is committed to ethical delivery of its mandate to all stakeholders.



## **I. KEY ORGANIZATION INFORMATION AND MANAGEMENT**

### **(a) Background information**

The Kenya Agricultural and Livestock Research Organization (KALRO) is a State Corporation established under the Kenya Agricultural and Livestock Research Act, No 17 of 2013, with perpetual succession, the power to sue and be sued in its own name and the ability to own and alienate movable and immovable property. The organization is also governed by the provisions of the State Corporations Act, Chapter 446 of the Laws of Kenya, an Act of Parliament providing for control and regulation of state corporations. KALRO falls under the Ministry of Agriculture and Livestock Development, and is the country's principal national organization responsible for research and technology generation on crops, livestock, soil and water management and their socio-economics.

### **(b) Principal Activities**

The Organization's mandate is to undertake, streamline, coordinate and regulate all aspects of research in agriculture and livestock development, and promote the application of the research findings, technologies and innovations. Its mission is to conduct agricultural research through application of science, technology and innovation to catalyze sustainable growth and development in agriculture and livestock product value chains. In pursuit of this mission, KALRO seeks to acquire and contribute knowledge and creative solutions that are participatory and client-oriented; holistic and system-oriented; gender-sensitive and affordable to its stakeholders.

### **(c) Key Management**

The Organization's day-to-day management is under the following:

1. Director General
2. Deputy Director General (Livestock)
3. Deputy Director General (Crops)

### **(d) Fiduciary Management**

The key management personnel who held office during the financial year ended 30<sup>th</sup> June 2022 and who had direct fiduciary responsibility were;

#### **1. Directors**

<b>No.</b>	<b>Designation</b>	<b>Name</b>
1	Director General	Dr. Eliud K. Kireger
2	Deputy Director General-Livestock	Dr. Evans Ilatsia
3	Deputy Director General -Crops	Dr. Felister Makini
4	Director, Livestock Systems	Dr. Samuel Mbuku
5	Director, Socio-Economics & Policy Development	Dr. Festus Murithi
6	Director, Knowledge Management.	Dr. Karl Nyabundi
7	Director, Crops Systems	Dr. Lusike Wasilwa
8	Director, Natural Resources Management	Dr. David Kamau



<b>No.</b>	<b>Designation</b>	<b>Name</b>
9	Director, Partnership & Business Development	Dr. Monicah Waiganjo
10	Director, Planning & Performance Contract	Dr. Joyce Malinga
11	Director, Human Resources & Administration	Ms. Gladys Wangia
12	Director, Finance & Accounts	Mr. David Muriithi
13	Director, Supply Chain Management	Mr. Stevens Musewe
14	Director, Information Communication and Technology	Dr. Boniface Akuku
15	Director, Corporate Communication	Ms. Virginia Ndungu
16	Director, Internal Audit	Mr. Francis Langat
17	Director, Security Services	Mr. Moses Boit
18	Director, Property Management	Mr. Henry Mbaluku
19	Principal Legal Officer	Ms. Patricia Ngutu

## **2. Assistant Directors**

<b>No.</b>	<b>Designation</b>	<b>Name</b>
1	Assistant Director, Crop Systems - Production, Agronomy, Breeding and Seed systems	Dr. Benjamin Kivuva
2	Assistant Director, Crop Systems- Health	Dr. Zakayo Kinyua
3	Assistant Director, Livestock Systems- Production, Breeding and Commercialization	Dr. Elkana Nyambati
4	Assistant Director Livestock Systems- Health	Dr. John Mugambi
5	Assistant Director, Socio-Economics & Policy Development- Socio-Economics and Policy	Dr. Wellington Mulinge
6	Assistant Director, Socio-Economics & Policy Development- Research Methods and Analytics	Dr. Alice Murage
7	Assistant Director, Planning & Performance Contract- Planning, Monitoring and Evaluation	Dr. Beatrice Salasya
8	Assistant Director, Performance Management and Quality Control	Mr. David Kipkoech Nyamasia
9	Assistant Director, Partnership & Business Development- Business Development	Dr. Margaret Makelo
10	Assistant Director, Partnership & Business Development- Partnership and Resource Mobilization	Ms. Scholastica Wambua
11	Assistant Director, Knowledge Management- Knowledge and Information	Dr. Freda Maina
12	Assistant Director, Natural Resources Management - Environmental and Sustainability	Dr. Michael Okoti
13	Assistant Director, Finance & Accounts	Ms. Ebby Musembi
14	Assistant Director, Supply Chain Management	Mr. Amos Mugo



<b>No.</b>	<b>Designation</b>	<b>Name</b>
15	Assistant Director, Information Communication and Technology	Ms Irene Kimani
16	Assistant Director, Human Resources & Administration Human Resources Management	Mr. Benjamin Onyancha
17	Assistant Director, Human Resources & Administration - Training and Development	Dr. Kepha Ombui
18	Assistant Director, Corporate Communication	Ms. Florida Maritim
19	Assistant Director, Internal Audit	Mr. Stephen Kigo

**(e) Fiduciary Oversight Arrangements**

- Ministry of Agriculture and Livestock Development
- The National Treasury and Economic Planning

**(f) Organization Headquarters**

Kaptagat Road, Loresho  
P. O. Box 57811-00200  
Nairobi, Kenya

**(g) Entity Contacts**

Telephone: 0709 104 000, 0722 206 986/8/ 0733 333 223/4  
Email: [director@kalro.org](mailto:director@kalro.org)  
Website: [www.kalro.org](http://www.kalro.org)

**(h) Organization Bankers**

1. Kenya Commercial Bank  
P.O. Box 46950-00100  
Nairobi  
Tel No. 020-2214878,
2. NCBA Bank Kenya  
P.O. Box 44599- 00100  
Nairobi.  
Tel No. 020-4450882,
3. Co-operative Bank of Kenya Ltd  
P O Box 48231 - 00100  
Nairobi  
Tel No. 020-2776000
4. Stanbic Bank Kenya  
P.O Box 30550-00100  
Nairobi.  
Tel No. 020-3268888.

5. National Bank of Kenya  
P.O Box 72866-00200  
Nairobi.  
Tel No.020-2828000.
  
6. Absa Bank Kenya  
Westend Building,  
Off Waiyaki Way.  
PO Box 30120 - 00100.  
Nairobi.  
Tel: +254 (20) 3900000. Cell: +254 (722) 130120. Cell: +254 (732) 130120.

**(i) Independent Auditors**  
Office of the Auditor General,  
Anniversary Towers, University Way  
P.O. Box 30084-00100  
Nairobi, Kenya

**(j) Principal Legal Adviser**  
KALRO Legal Office  
P.O. Box 57811 – 00200  
Cellphone. 0709 104 000, 0722 206 986/8/ 0733 333 223/4  
Email: director@kalro.org  
Nairobi



## II. THE BOARD OF MANAGEMENT

### Mr. Wilfred Chacha Rotich



Mr Wilfred Chacha Rotich is the Chairman of the KALRO Board of Management. He holds a Bachelor's Degree in Social Studies (Government and Public Administration-First Class Honours from Moi University), Masters of Arts in Public Administration and Policy from Moi University and is currently pursuing a PhD in Political Science. His areas of interest are Policy, Governmental Processes Research and Development.

Mr. Wilfred Chacha is appointed Member, Chairman KALRO BoM.

### Prof. Walter O. Oyawa, PhD



Prof. Walter O. Oyawa is currently the Director General/Chief Executive Officer of the National Commission for Science, Technology and Innovation (NACOSTI). He holds a PhD in Civil Engineering (Structural Engineering), at Kyoto University, Japan, M.Sc. Civil Engineering (Structural Engineering), at the University of Nairobi, Master of Tropical Veterinary Science at the University of Edinburgh and a B.Sc. Civil Engineering, at the University of Nairobi. He holds an Executive Master of Business Administration (EMBA), at JKUAT. He is a Registered Professional Engineer, Engineers Registration Board of Kenya (ERB), Corporate member, Institution of Engineers of Kenya (IEK), and Lead Expert, National Environmental Management Authority (NEMA).

Prof. Walter O. Oyawa is a member of KALRO BoM.

### CPA Margaret Wamuyu



CPA Margaret Wamuyu is a professional accountant with experience at different Boards and is currently pursuing a PhD in Finance. She is a Certified Public Accountant and a Member of Institute of Certified Public Accountants of Kenya (ICPAK).

She also holds a Master of Business Administration degree from the University of Nairobi and Bachelor of Commerce degree (First Class Honors) from KCA University. She is a Senior Government Officer with a wealth of experience in Accounting, Performance Contracting and Public Financial Management. She is currently working at the National Treasury and Economic Planning. She represents, PS National Treasury and Economic Planning



**Mrs. Mary W. Mwambia**



Mrs. Mary Mwambia is appointed Member. She Chairs Finance and Administration Committee. Mrs Mary Mwambia holds a Bsc in Food science and Technology from the University of Nairobi, an MSC in Agricultural Studies from University of Queensland - Australia and an MA in Counselling Psychology from Daystar University. She also holds a certificate in milk quality Control from Swedish University of Agriculture. Mary has vast experience in Livestock issues and has served as Deputy Director of Livestock in charge of Dairy and Livestock Feeds in the Ministry of Agriculture and Livestock for 30 years. She has chaired Dairy and Livestock Feeds Committee in KEBS and has been involved in dairy and feeds standards development in Kenya, East Africa and COMESA. She is currently running a family business in Tea and Dairy farming in Murang'a.

Mrs. Mary Mwambia is appointed Member. She Chairs Finance and Administration Committee

**Mrs. Grace G. Kimaru**



Mrs. Grace G. Kimaru is currently Deputy Director in charge of Livestock Market Development and Agribusiness in the Directorate of Livestock Production, State Department of Livestock Production, Ministry of Agriculture and Livestock Development. She is currently pursuing a PhD in Entrepreneurship at Jomo Kenyatta University of Agriculture and Technology. She is a member of Animal Production Society of Kenya (APSK). She also holds a Master's Degree in Entrepreneurship from the Jomo Kenyatta University of Agriculture and Technology and a Bachelor of Science in Agriculture (Upper Second Class honors) from The University of Nairobi. She has a wealth of experience in Policy formulation, Performance contracting and Training.

Mrs. Grace Kimaru represent Principal Secretary, State Department for Livestock Development, Ministry of Agriculture and Livestock Development

**Ms. Clara W. Mwangi**



Ms. Clara W. Mwangi is appointed as an Independent Member of the Board and Chairs the Audit, Risk and Governance Committee of the Board. She has over twenty years' experience at Senior Management Levels with International Educational Institutions and with a special focus in areas of Finance, Human Resource and Administration.

She is a holder of a Bachelor of Education Degree (Kenyatta University) and has attended various International Management Courses globally. Clara is currently serving as a Deputy Director at a leading International School in the Region



### **Ms. Teresia Wambui Karanja**



Ms. Karanja holds a Master Degree in Plant Pathology. She heads the Pathology, Weeds and Pesticide Advisory Services Branch at Plant Protection Services Division. She is also a Board Committee Member of Technical Registration of new pest control products and Audit committees.

She represents, Principal Secretary, State Department for Crops Development, Ministry of Agriculture and Livestock Development

### **Mr. Isaac Odek**



Mr. Isaac Odek represents Inspector General, State Corporations. He is a Member with no voting rights

### **Dr. Samuel N. Mburu**



Samuel N. Mburu (PhD) is an appointed member of KALRO board of management. He has over 17 years working experience at management level both in Corporates and Universities gained while working for various institutions both in Kenya and in the East African region.

Dr. Mburu is an Economist with the first Degree of Economics from Egerton University; a Master of Economics from University of Dar es Salaam and (PhD) Economics – at Kenyatta University. Dr. Mburu is also a lecturer at Kenyatta University and served as the Managing Director at KU Ltd; a subsidiary of the University in Rwanda. He has also held various leadership positions in the past.

Dr. Mburu is the Chairman of the Finance and Administration Committee at KALRO Board of Management and also a member of the Research, Technology and Innovation Committee.

### **Dr. Eliud K. Kireger, OGW**



Dr. Eliud Kiplimo Kireger is the Director General/CEO of KALRO. Prior to this appointment, he served as the Managing Director/CEO of the Tea Research Foundation of Kenya. Dr Kireger attained his PhD in Plant Eco-physiology from the University of Wales, (UK), MSc in Genetics and Tree breeding from University of Toronto (Canada) and a BSc in Forestry



from Moi University (Kenya). He has trained in Conflict Management and Resolution, Strategic Leadership, Company Directorship and Change Management among others. He was an Appointed Member of the board of management of Kenya Agricultural Research Institute (KARI) where he chaired the Audit Committee. He is the Secretary to the KALRO Board of Management.



## **II. MANAGEMENT TEAM**

### **1. Dr. Eliud K. Kireger-B.Sc.; M.Sc.; PhD, OGW Director General**



Dr. Eliud Kiplimo Kireger is the Director General/CEO of KALRO. Prior to this appointment, he served as the Managing Director/CEO of the Tea Research Foundation of Kenya. Dr Kireger attained his PhD in Plant Eco-physiology from the University of Wales, (UK), MSc in Genetics and Tree breeding from University of Toronto (Canada) and a BSc in Forestry from Moi University (Kenya). He has trained in Conflict Management and Resolution, Strategic Leadership, Company Directorship and Change Management among others. He was an Appointed Member of the board of management of Kenya Agricultural Research Institute (KARI) where he chaired the Audit Committee.

### **2. Dr. Evans D. Ilatsia (BSc, MSc, Dr.sc.agr.) Deputy Director General, Livestock**



Dr. Evans D. Ilatsia holds a Doctorate degree in Animal Breeding and Genetics from University of Hohenheim, Germany; a Master of Science degree in Animal Breeding and a Bachelor of Science in Agriculture Extension from Egerton University. Prior to his current position, he served as the Institute Director, Dairy Research Institute where he led a team of scientists in implementing over 22 research and development projects. Dr.sc.agr. Ilatsia is an accomplished scientist who has (co) authored over 80 research publications including refereed journal articles, conference papers, technical bulletins, reports and training manuals and contributed to various policy documents. He also holds various academic supervisory roles for post graduate MSc and PhD candidates in local and international universities

### **3. Dr. Felister W. Makini - B. Sc.; M.Sc.; PhD. Deputy Director General, Crops**



Dr. Felister Makini holds a BSc in Botany and Chemistry from the University of Nairobi, Kenya and an MSc in Plant Pathology from Georgia State University, USA. She also has a PhD in Plant Pathology from the University of Greenwich, UK and has done several short courses in various fields. Prior to her current position, she worked as the Deputy Director in charge of the Department of Outreach and Partnerships at KARI. Recently together with others she published an operational field guide to innovation platforms as the lead author.



#### **IV. CHAIRMAN'S STATEMENT**

The year under review marked the end of the final term for implementation of the 1<sup>st</sup> KALRO Strategic Plan (2017-2021). The KALRO Board of Management (BoM) ensured that conducive environment for the organization operations was improved and maintained. This included implementation and adherence to COVID-19 pandemic guidelines by the Ministry of Health in conducting research activities after a renewed resurgence of the disease. The management facilitated booster vaccination of deserving staff members to ensure smooth running of the organization's operations. In addition, the Board spearheaded the implementation of policies that guided the annual activity planning and milestones of the Organization. Subsequently, a performance contract with the Ministry of Agriculture and Livestock Development was drawn and we committed ourselves to the achievement of the set targets. I am pleased to report that we recorded praiseworthy achievements on the targets for the year. The organization will maintain course in perfecting the adoption of the Agricultural Productivity Value Chain (APVC) approach for all research programs and projects.

The Board of Management recognizes the fundamental role that the internal revenue generation plays in support of research activities and capital investments in light of declining development funding from the exchequer. It is in this light that the board has doubled its effort to enhance revenue generation through strategic investments of scarce resources. Despite a prevailing drought conditions and persistent interruptions in operations caused by the resurgence in COVID-19 outbreak during the period under, AIA target from sale of farm produce was achieved and exceeded buoyed by aforementioned BoM efforts. KALRO continued implementation of CS –APP and KCSAP Projects and support from the National Government. The implementation was carried out through partnership and collaboration which is one of our pillars. The BoM also ensured other Organization's innovation programs were developed and efficiently implemented in collaboration with sector stakeholders, especially the county governments, industry and donors. The BoM will endure in pursuit of collaboration and partnerships as a strategy to maintain sustainable investments in research to propel KALRO to play a significant role in developing and disseminating technologies, innovations and catalyze knowledge sharing in both local and global markets.

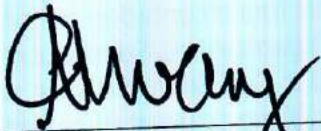
With these achievement of the Organization's strategic objectives, the board will endeavor to build considerable momentum to maintain these results in future. The board in its wisdom will support the enhancement of stakeholder awareness for increased and sustained support for agricultural and livestock research initiatives to generate technology and innovation for enhanced production and productivity in agriculture. This will ensure improved economic returns and livelihoods for farmers, attainment of food and nutrition security and employment through value addition. The Organization recognizes the need for continual improvement of internal process efficiencies in order to counter the challenges facing the agricultural innovation system promptly, efficiently and cost effectively. Management has commendably accelerated implementation of plans to address identified challenges through capacity building and investments in technology.

Finally, KALRO management initiated the development of the 2nd KALRO strategic plan 2022/2027 after the expiry of existing one in during the year under review. In this regard, the management will support on public participation through stakeholder consultation and feedback as required under the Constitution of Kenya 2010 after the Board of Management adopts the current draft. It is anticipated that the continued public consultation will strengthen the



eventual implementation and deepen good governance, promote transparency and foster accountability.

I thank the Government of Kenya, development partners, collaborators, farmers, the KALRO Management and the entire staff for working hard to record these commendable achievements. Let us work even harder for we still owe our beloved nation and the Kenyan people even more for next year.



---

**Mr. Wilfred Chacha Rotich**  
**Chairman, KALRO BoM**



## **V. REPORT OF THE CHIEF EXECUTIVE OFFICER**

The Kenya Vision 2030 development blueprint is the desire for Kenya to become a knowledge-based economy. KALRO Management recognizes the central role the organization is expected to play in the generation technology, knowledge and skills support the envisaged economy for its growth and competitiveness. The management therefore continue to apply this ideal in the implementation of the projects planned for the year under review to instill the requisite technology, innovations and knowledge in the agricultural sector which is KALRO's core business. To ensure quality research, the management invested in its human resource through staff development and welfare, both of which are meant to provide a conducive working environment, through compensation and motivation of staff. This is in addition to the development and maintenance of facilities in line with the country's research priorities. The research projects undertaken during the year were aligned to the first KALRO Strategic Plan (2017-2021), Government Medium Term Plans (2018-2022), the Agriculture Sector Growth and Transformation Strategy (ASTGS 2019-2029) and the Big Four Agenda. Furthermore, research projects focused on the assessment, validation and development of Climate Smart Agricultural (CSA) technologies identified along the Agricultural Product Value Chains (APVC) in effort to mitigate adverse climate change.

KALRO management countered the resurgence of COVID-19 pandemic through support of the qualified staff to receive booster vaccine doses, thus enabling researchers to continue conducting various research projects activities with funding mainly from the USAID FtF, World Bank and European Union and other development partners. The Organization managed to achieve A.I.A totaling to over Ksh. 797.53 Million down from Ksh. 818.26 Million in 2020/21 despite the prevailing unfavorable weather during the year under review. The Management continued to apply the best practices by ensuring that funds allocated to the Institutes were utilized for the programmes and activities for which they had been planned and to provide excellent services for Kenyans. In this regard, the management facilitated sensitization of 72 employees in five institutes on the commitments and standards stipulated in the service charter and trained 20 employees on excellent customer service culture.

A major achievement during the year was the submission of 26 promising lines of different crops to KEPHIS for NPT, including (2) maize varieties with Maize Lethal Necrosis Disease (MLND) resistance/tolerance, high yields and drought tolerance. KALRO carried out four (4) awareness on demonstrations on the control of the Fall Armyworm (FAW) in Bomet and Siaya Counties. In 2020/21 FY, testing of 21,181 soil samples was achieved through collaborative linkages with the Counties and International partners. In addition, the Adaptive Research Programme KALRO evaluated fifty (50) pesticides products submitted by PCPB and disseminated the findings of six (6) bio-fertilizer and Bio-pesticides. Analyzed 836 animal feed samples against a target of 713 for their nutritive values and provide feedback in terms of advice to livestock farmers and feed processors accordingly; validated one (1) organic farming technology using mushroom-based manure developed two (2) value added products from honey, propolis and beeswax. Developed and promoted six (6) climate smart and natural resource adaptation technologies, innovation and management practices and six (6) energy saving environmentally sustainable technologies among other achievements.

On research knowledge sharing, over 33 papers from KALRO researchers were internally reviewed for publication in renowned peer reviewed journals. Another 24 papers internally reviewed for presentation in scientific conferences and some 25 technical papers were

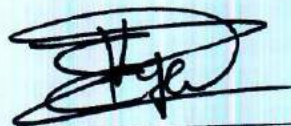


published with 30 Extension materials developed/updated and availed to users. This offered an opportunity to our researchers to communicate to farmers, the extension workers and other stakeholders on the technologies available. A total of 154 stakeholder-training sessions farmer training workshops, field days and demonstrations were held during the period under review. In addition, 20 beekeepers were trained using a manual developed for the purpose.

To ensure that farmers used improved crop varieties and livestock breeds around the country, the Organization produced and sold 1086.2 metric tonnes of basic seed (cereals, potatoes, grain legumes and cotton) and availed to farmers. This also included 1.681 million tea cuttings, 8.549 million coffee seedlings, 39,144 improved coconut seedlings and 50,285 cashew-nut seedlings of improved varieties to enhance crop production. On livestock production side, 175 Orma Boran bulls; 78,234 Indigenous Chicken chicks and 75 breeding boars and gilts/sows and 82 bucks and rams; were produced and availed to farmers. To ensure availability of quality livestock feed, the Organization tested 836 animal feed samples for development of quality rations, produced and availed to farmers 3,200,000 clean napier grass cuttings and 1560 kg rangelands grass seed. Released two (2) Bracharia cultivars and three (3) SPV varieties, *Enteropogon macrostachyus*, *Cenchrus ciliaris* Ecotypes TVT 3, MGD 1 and *Chloris burghiana*.

The management continued to ensure human resource development through the KALRO Training Master Plan, by coordinating, monitoring and evaluating staff on PhD and MSc training in both local and overseas universities as well as identifying potential sponsors for the trainings. KALRO also provided 39 Youth Internships and 121 students' industrial attachment and Apprenticeships during the period.

On behalf of the Management, I would like to take this opportunity to thank the Government of Kenya and our development partners for the support they accorded to KALRO during the reporting period. This support ensured that the Organization met the set targets leading to a commendable achievement of most of our Performance Contract targets.



---

**Eliud Kiplimo Kireger (PhD, OGW)  
DIRECTOR GENERAL**



## VI. REVIEW OF KALRO PERFORMANCE FOR FY 2021/2022

Section 81 Subsection 2 (f) of the Public Finance Management Act, 2012 requires the Accounting Officer to include in the financial statement, a statement of the national government entity's performance against predetermined objectives.

KALRO has *five* strategic pillars and objectives within its Strategic Plan for the FY 2018/2019-2022/2023. These strategic pillars are as follows:

Pillar 1: Technologies and innovations for priority agricultural products value chains generated and disseminated;

Pillar 2: Knowledge, information and technologies on priority agricultural products value chains research collated, stored and shared;

Pillar 3: Socio-economics information, market and policy options supporting priority agricultural product value chains generated and advocated;

Pillar 4: Organization's capacities and resource management strengthened;

Pillar 5: Systems for coordination, prioritization and regulation of research developed and operationalized.

KALRO develops its annual work plans based on the above *five* pillars. Assessment of the Board's performance against its annual work plan is done on a quarterly basis. The *organization* achieved its performance targets set for the FY 2021/2022 period for its strategic pillars, as indicated in the table below:

Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
<b>Pillar 1:</b> Technologies and innovations for priority agricultural products value chains generated and disseminated	1. To improve crop production, productivity and utilization	No. of crop varieties developed	Develop improved crop varieties for better nutrition and industrial development.	77 crop varieties were submitted to KEPHIS for National Performance Trials (NPT), 27 candidates are being evaluated for distinctness, uniformity and stability (DUS) upon which variety release indicators and 13 varieties have been released (5 Tea, 3 Maize, 2 wheat and 1 bean.
		Technologies developed	Develop good agronomic technologies and practices for priority APVCs	i. Analyzed 28,547 soil samples; ii. Developed and disseminated three (3) management technologies of problem soils (saline, sodic, vertisols) and two soil irrigation /drainage management. iii. Developed and disseminated six (6) climate smart and natural resource management technologies, innovation and management practices; iv. Developed and disseminated three (3) conservation agricultural technologies.



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
				<ul style="list-style-type: none"> <li>v. Developed and disseminated six (6) climate smart and natural resource management technologies, innovation and management practices;</li> <li>vi. Developed and disseminated three (3) conservation agricultural technologies</li> </ul>
		No. of disease resistant crop varieties for food safety.	Improve and maintain crop health and food safety	<ul style="list-style-type: none"> <li>i. Screened 400 new double haploid (DH) lines for MLND resistance/tolerance</li> <li>ii. Evaluated all pesticides submitted by PCPB and submitted reports;</li> <li>iii. Identified and evaluated six (6) bio-fertilizer and Bio-pesticides and disseminate to farmers the findings.</li> <li>iv. Developed integrated weed management technology- A biological herbicide 'Kichawi Kill' that has been approved for commercial use against maize and sorghum Striga (witchweed) by the Kenya Pest Control Product Board (PCPB);</li> <li>v. Validated and promoted one (1) organic farming technology using mushroom-based manure.</li> </ul>
		Technologies developed for pre and post-harvest	Develop pre and post-harvest handling and storage technologies and practices	<ul style="list-style-type: none"> <li>i. Produced and availed to farmers 89.8MT against a target of 271MT of Aflasafe KE01™. This indicator was not achieved due to shortage of raw material for production;</li> <li>ii. Developed a policy to guide technology transfer and commercialization of Aflasafe.</li> </ul>
		Genetic resources conserved	Support plant genetic resources conservation.	<ul style="list-style-type: none"> <li>i. Undertook a study to determine rate of crops biodiversity loss;</li> <li>ii. Identified ten (10) crop germplasm tolerant to climate change.</li> </ul>
		Disease free planting materials	Material produced and disseminated	Basic seed (cereals, potatoes, and grain legumes) (MT), 1720.057, Coffee planting material (No. Millions), 10.844, Seed cane production (No.'000' MT), 2.25, Cassava (No. Million), 1.9, Sweet Potato vines (No. Million), 9.27, Coconut seedlings (No.), 31703, Cashew nut seedlings (No.), 33322, Cotton basic seed (ton) 6.312, Mulberry cuttings (No) 25,000, Macadamia



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
				79,870, Fruit seedlings(avocado, sweet yellow passion, mango, grafted purple passion, sunrise solo papaya, tree tomato, pepino melon, Thorn melon and banana), 6560
	2. To improve livestock production, productivity and products utilization	Develop improved livestock breeds	Develop improved livestock breeds	<ul style="list-style-type: none"> <li>i. Evaluated and selected dams and sires based on breeding values;</li> <li>ii. Aailed 2,000 doses of Sahiwal semen for storage and distribution by KAGRC;</li> <li>iii. Provided data on selected dams and sires for performance evaluation and pedigree recording of selected dams and sires by Kenya Stud Book;</li> <li>iv. Carried out two (2) assessments to approve bulls for availing to farmers;</li> <li>v. Aailed 176 breeding bulls to farmers.</li> <li>vi. Produced and aailed 193 breeding bucks and rams.</li> <li>vii. Produced and aailed 459,803 chicks to farmers</li> </ul>
No. of forage varieties developed		Develop forages, improved feeds and feeding systems	<ul style="list-style-type: none"> <li>i. Evaluated two Bracharia cultivars and three (3) SPV varieties, Enteropogon macrostachyus, Cenchrusciliaris Ecotypes TVT 1, MGD 3 and Chlorisroxburghiana, for ASALs and submitted to KEPHIS for NPT evaluation;</li> <li>ii. Analyzed 2,176 animal feed samples for their nutritive values and provide feedback in terms of advice to livestock farmers and feed processors accordingly;</li> <li>iii. Formulated and disseminated 10 (ten) feed rations and share with farmers.</li> </ul>	
Forage seed Systems developed		Develop a robust and sustainable forage seed systems	<ul style="list-style-type: none"> <li>i. 4,012,391 (no) clean nappier grass cuttings and</li> <li>ii. 5,112.2 kg rangelands grass seed produced</li> </ul>	
No. of vaccines developed		Improve and maintain livestock health and food safety	<ul style="list-style-type: none"> <li>i. Conducted clinical trial for Contagious Caprine Pleuro-Pneumonia (CCPP) vaccine and use ILRI infection model for goats;</li> <li>ii. Conducted validation trials for a commercial batch of thermos-tolerant</li> </ul>	



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
				<p>PPR vaccine in sheep and goats and produce a dossier for registration of the vaccine in the East African Region;</p> <p>iii. Carried out field validation for CBPP sub-unit vaccine at control site in Magadi sub-county and experimental site in Mosiro ward.</p>
		No. of diagnostics developed		Capacity built technical staff on molecular techniques on Camel mastitis vaccine development in collaboration with UNITID on the use of the MinION sequencer, for sequencing the pathogens of interest;
		Tests for mycotoxins, drug residues and heavy metals (in feeds and food) validated		Analyzed 120 post-harvest animal products samples for contaminants;
		Number of feed samples analysed for contaminants	Improve and maintain livestock health and food safety	1,421 feed samples were analyzed and feedback provided to farmers.
		No. of value added livestock products developed	Support the development of processing and value addition of livestock products	Two value added products (propolis ginger and body cream) Developed
	3. To develop appropriate agricultural machinery and equipment/impliments	No of Machinery acquired deployed	Machinery acquired deployed Improved efficiency	<p>i. Fabricated 3 equipment/machinery: backpack cassava-weeder, Maize harvester, and incubator for indigenous chicken;</p> <p>ii. Established two (2) strategic linkages with private sector for fabrication and supply of appropriate machinery and attendant support services -Partnered with MoA-ATDC and Busia Jua-kali group (Kalulu engineering) for fabrication and supply of appropriate machinery</p>



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
				and equipment and attendant support services.
<b>Pillar 2:</b> Knowledge, information and technologies on priority agricultural products value chains research collated, stored and shared	1.Promote knowledge and information management and outreach	No of Databases developed	Collect and collate KALRO Knowledge Information and Technologies (KITs) for storage, ease of retrieval and dissemination;	<ul style="list-style-type: none"> <li>i. Developed one (1) manual for beekeeping husbandry practices;</li> <li>ii. Held 2 meetings per county to promote soil analysis services in each of the following five (5) Counties (Busia, Tharaka-nithi, Taita-Taveta, Kisii, Kajiado);</li> <li>iii. Disseminated two (2) pre (Aflasafe KE01™) and two (2) post-harvest (Curing and processing of root and tuber crops and use of diffuse light store) technologies to reduce food contamination and wastage and assist farmers to recover food security affected by COVID-19 pandemic.</li> <li>iv. Developed and updated 164 extension materials, that include policy briefs, technical bulletins, pamphlets, leaflets and online library;</li> <li>v. Updated and disseminated one (1) brochure on FAW management;</li> </ul>
		No of Mechanisms for ease of retrieval deployed	Strengthen, digitalize and provide innovative library products and information services;	<ul style="list-style-type: none"> <li>a). Operationalized and Commissioned KALRO Big data platform and cloud services as a way of providing information on line;</li> <li>b). Carried out digitization by implementing One (1) crop model;</li> <li>c). Operationalized the Agro-weather Tool, which will be able to provide insights based on agriculture and weather as well as targeted advisories for farmers;</li> <li>d). Commissioned an ICT based agro-advisory system for on line access by stakeholders;</li> <li>e). Developed and shared four (4) Project documentaries on crops (2) and livestock (2) innovations and technologies;</li> </ul> <p><b>i. Crops link</b>  <a href="https://youtu.be/gN0xG0MQmUk">https://youtu.be/gN0xG0MQmUk</a>  <a href="https://youtu.be/UVuhi6J0naE">https://youtu.be/UVuhi6J0naE</a>  <a href="https://youtu.be/NS-HjaIuq7o">https://youtu.be/NS-HjaIuq7o</a>  <a href="https://youtu.be/zPTaxacRoJM">https://youtu.be/zPTaxacRoJM</a></p>



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
				<p><b>ii. Livestock links</b>  <a href="https://youtu.be/orIxFObEaRc">https://youtu.be/orIxFObEaRc</a>  <a href="https://youtu.be/-cIB2qdtFXQ">https://youtu.be/-cIB2qdtFXQ</a>  <a href="https://youtu.be/PsEeB77ObSI">https://youtu.be/PsEeB77ObSI</a>  <a href="https://youtu.be/XndmahpCICI">https://youtu.be/XndmahpCICI</a>                      f). Implemented KALRO customer relation management system at the Headquarters and Tea Research Institute (TRI);</p>
		No of Digital libraries services in place		<p>i. Updated one (1) mobile digital application on FAW detection and management;                      ii. Evaluated three (3) bio-pesticides for management of fall armyworm;                      iii. Evaluated three (3) plant extracts for management of fall armyworm on maize;                      iv. Evaluated three (3) synthetic insecticides submitted to KALRO by PCPB from agrochemicals industry for management of fall armyworm on maize;                      v. Identified 20 FAW-tolerant populations for development of double haploid (DH);                      vi. Evaluated 100 hybrids for preliminary yield under FAW infestation.</p>
		No of Improved Journals for information sharing	Sustain and improve publication of the organization's peer reviewed journals to international repute, including the East African Agricultural and Forestry Journal and the Tea Quarterly Journal	<p>i. Submitted 88 internally reviewed papers for publications in peer reviewed refereed journals;                      ii. Developed 133 internally reviewed technical publications;                      iii. Submitted 112 papers internally reviewed for presentation in scientific conferences.</p>
		No. of Capacity building programs of	Provide capacity building services within the 47 counties and in	<p>i. Trained 100 beekeepers using the manual.                      ii. Conducted 650 stakeholder-training sessions on various crops and livestock</p>



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
		Counties covered	the African region in order to enhance synergy and benefits from agricultural research and products	husbandry practices throughout the country; iii. Trained 60 Agricultural Product Value Chain (APVC) and Innovation Platform champions; iv. Held 150 consultative fora as follows, (50%);
<b>Pillar 3:</b> Policies and market options supporting and facilitating priority agricultural product value chains developed and advocated	To generate socio-economics, gender and promotion of Participatory Research Methods information	No. of Improved information generated and shared	Generate and promote socio-economics information;	i. Conducted economic analysis studies in two (2) institutes: DRI and TRI and availed reports; ii. Developed and published agricultural market information on four (4) commodities namely tea, maize, dairy and sugar; iii. Developed and submitted to donors 50 mega research proposals for funding; iv. Submitted 88 internally reviewed papers for publications in peer reviewed refereed journals; v. Developed 133 internally reviewed technical publications; vi. Developed and updated 164 extension materials, that include policy briefs, technical bulletins, pamphlets, leaflets and online library; vii. Submitted 112 papers internally reviewed for presentation in scientific conferences.
<b>Pillar 4:</b> Capacity building to undertake research on priority agricultural product value chains strengthened	1. To improve human resource capacity development and management	% of Competitive remuneration package in place	Develop a reward and recognition system with an attractive and competitive salary and benefits package commensurate with work output;	i. Trained disability mainstreaming committee and Senior Management; and sensitize staff at the institutes on disability; ii. Promoted attainment of Universal Health Coverage (UHC) at the workplace through offering services for disease prevention and wellness promotion for at least 80% (2290) of staff and family members with the following: iii. Screened package: HIV, Cancer, Blood pressure, Blood sugar and BMI; iv. Sensitization package for non-



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
				communicable diseases (NCDs), Cancer (Breast, Cervical and prostate,) diabetes, hypertension, stress management and mental health; iii. Sensitization package on HIV prevention;
		No. of staff trained	Learning and development through regular short and long term training (technical and operational) of staff based on identified needs;	<ul style="list-style-type: none"> <li>i. Capacity built technical staff on molecular techniques on Camel mastitis vaccine development in collaboration with UNITID on the use of the MinION sequencer, for sequencing the pathogens of interest;</li> <li>ii. Capacity built 346 staff members on the identified skill gaps</li> <li>iii. In-house training of 20 interns (10-crops and 10-livestock) on development of research proposals and publications</li> <li>iv. Sensitized 50 employees in the five named institutes (10 each) on the commitments and standards stipulated in the service;</li> </ul>
		Level Improved Leadership index	Develop leadership and management skills in order to meet the corporate goals while observing integrity and good governance;	<ul style="list-style-type: none"> <li>a) Tracked compliance with the commitments and standards in the charter by; <ul style="list-style-type: none"> <li>i. Maintaining records on service delivery in all quarters;</li> <li>ii. Maintaining feedback registers in all quarters;</li> <li>iii. Analysis and compilation of a report on the feedback and shared it with the service providers;</li> </ul> </li> <li>b) Customized the service charter to unique needs of customers by;</li> <li>c) Developing an audio clip for the blind played on television screens at KALRO DRI</li> </ul>
	2. To mobilize and manage financial resources	Revenue generated	Increase Internally Generated Revenue through commercializatio	<ul style="list-style-type: none"> <li>i. Kshs. (Million) 1,448.59</li> <li>ii. Developed and submitted to donors 50 mega research proposals for funding;</li> </ul>



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
			<p>n of technologies, products and services;</p> <p>Strengthening the KALRO Seed Unit (KSU);</p> <p>Raising revenue from royalties, contract research and consultancies;</p>	
	3.To improve organizational business processes for effective management and coordination	Cumulative % to achieve a Robust ICT	Establish, maintain and manage Information and Communications Technology (ICT)	<p>i. Developed a security risk mitigation plan and implement it at the Headquarters, ICRI, and BRI-Garissa;</p> <p>ii. Sensitized staff on security awareness at CRI, SG&amp;CRI and TRI;</p> <p>iii. Undertook one fire drill and marshal training in 3 Institutes (AMRI, VSRI and GeRRI);</p> <p>iv. Increased ICT security measures by ensuring 100% anti-virus updates and 100% data backup throughout the year;</p> <p>v. Increased online security by installing and maintaining an up to date Secure Socket Layer on KALRO website;</p> <p>vi. Increased online security by installing and maintaining Antispam Software for KALRO Corporate emails;</p> <p>vii. Conducted security checks of all persons who access KALRO facilities and maintain a register for all visitors;</p> <p>viii. Upgraded the surveillance system at the headquarters `;</p> <p>b. Identified, classified and secured information assets based on the following attributes; value, integrity, importance, confidentiality, accuracy and authenticity.</p>
		Support and facilitate	Security service implemented	a) Updated Inventory Register by conducting a survey



Strategic Pillar	Objective	Key Performance Indicators	Activities	Achievements
		KALRO Security Service for effective services		<p>b). Developed a security risk mitigation plan and implement it at the Headquarters, ICRI, and BRI-Garissa;</p> <p>c). Sensitized staff on security awareness at CRI, SG&amp;CRI and TRI;</p> <p>d). Undertook one fire drill and marshal training in 3 Institutes (AMRI, VSRI and GeRRI);</p> <p>e). Increased ICT security measures by ensuring 100% anti-virus updates and 100% data backup throughout the year;</p>
	4.To enhance collaboration and partnerships	No. of collaborative initiatives	Build and maintain collaborations with other NARS such as universities, county governments, NGOs, agro-industry, commercially-oriented farms, and international organizations	<p>i. Capacity built technical staff on molecular techniques on Camel mastitis vaccine development in collaboration with UNITID on the use of the MinION sequencer, for sequencing the pathogens of interest;</p> <p>ii. Sixty (60) institute based research priority setting fora based on their Agricultural Product Value Chains (APVC) mandate;</p> <p>iii. Forty (40) engagements with strategic partners including the youth</p> <p>iv. Fifty (50) research coordination forums (i.e. project steering committee meetings).</p>
		No. of linkages with Country Governments	Establish and maintain linkages with County Governments	Partnered with 5 Counties to promote soil analysis services in order to increase crop productivity



## TECHNICAL RESEARCH PROGRAMME ACHIEVEMENTS: FY/2021/2022

Although the year recorded significant achievements in various projects under Crops and Livestock Research, the lock down because of COVID 19 limited the existing potential in most of KALRO activities to record higher achievements. This is because establishing trials, monitoring and evaluation as well as data collection was totally constrained in some cases. Presented below is the summary of the key achievements for the FY 2021/2022 as per the set Performance Contracting document.

### Improved crop production, productivity and utilization

#### Development of improved crop varieties

This involves field trials to select promising lines for particular agro ecological zones in the country. These promising crop lines are registered with KEPHIS for National Performance Trials (NPTs) and are evaluated for at least two years. The successful candidates are evaluated for Distinctness, Uniformity and Stability (DUS) upon which variety release indicators are confirmed and varieties submitted to National Variety Release Committee (NVRC) for official release and gazettelement. In the FY 2021/22, KALRO undertook the following activities targeting release of 10 varieties as per the Table 1 below:

**Table 1: Improved lines, lines entered into NPT and DUS**

Crops	Lines entered into NPT	Lines entered into DUS	Released Varieties
Sweet potato	1	0	0
Cassava	4	3	0
Soybeans	0	0	0
Maize	5	3	0
Irish potato	2	0	0
Rice	3	1	0
Cowpeas	0	2	0
Sorghum	0	4	0
Ground nuts	0	0	0
Beans	0	0	0
Wheat	2	2	0
Cotton	3	0	0
Green gram	0	0	0
Sunflower	1	0	0
Bambara nuts	0	0	0
Finger millet	5	5	0
Coffee	0	0	0
Sugar	0	6	0
Teff	0	0	6
Pearl millet	0	0	0
Saf flower	3	0	0
pigeon	0	0	0
Canola	0	0	0



Quinoa	0	0	0
Oats	0	0	0
Cashewnuts	0	4	4
<b>Totals</b>	<b>26</b>	<b>28</b>	<b>10</b>

### Production of crops' planting materials

KALRO produced planting materials of various crops species and sold to farmers and seed companies for planting, multiplication and commercialization as shown in table 2 below.

**Table 2. Production of crops' planting materials**

Planting Material	Achievement
Basic seed (cereals, potatoes, and grain legumes) (MT),	1080.97
Tea plants and cuttings (Millions),	1.681
Coffee planting material (No. Millions),	8.549
Seed cane production (No.'000' MT),	6.564
Cassava (No. Million),	5.596
Sweet Potato vines (No. Million),	2.977
Coconut seedlings (No.),	39144
Cashew nut seedlings (No.),	50285
Cotton basic seed (ton),	5.23
Mulberry cuttings (No),	20,000
Produce 174000 Fruit seedlings (avocado, sweet yellow passion, mango, grafted purple passion, sunrise solo papaya, tree tomato),	177916
Macadamia (No),	7640

### Disseminate Pre- and Post-Harvest Crop Handling and Storage Technologies and Practices

The organization:

- i) Disseminated two (2) pre-harvest methods for Aflasafe KE01;
- ii) Promoted two (2) post-harvest (Curing and processing of root and tuber crops and use of diffuse light store) technologies.

### Improve and maintain crop health and food safety

#### Evaluation of Maize Clones Tolerant to Maize Lethal Necrosis Disease

During the quarter, evaluation of Maize Clones Tolerant to Maize Lethal Necrosis Disease continued as follows:-

- i) Screened 930 new double haploid (DH) lines for MLND resistance/tolerance;
- ii) Generated 200 single crosses with potential resistance/tolerance to MLND;
- iii) Generated 150 three-way crosses with potential resistance/tolerance to MLND.
- iv) Conducted Performance Yield Trials (PYT) for 150 entries of maize crosses with MLND resistance/tolerance;
- v) Conducted Advanced Yield Trials (AYT) for 20 improved hybrids with resistance/tolerance to MLN;



- vi) Submitted 2 maize varieties with MLND resistance/tolerance for evaluation in National Performance Trials (NPT)

### **Awareness Creation and Development of Control Measures for Fall Armyworm**

The Fall Armyworm (FAW) is an insect pest that invaded the country in March 2017 and has adversely affected maize production. Currently, it has been reported in 43 counties and if not controlled on time it can lead to total loss of the maize crop. During the quarter, four (4) demonstrations were held in Bomet and Siaya Counties as an awareness creation strategy and provided control solution/s to the problem FAW, and the following performance indicator's activities were undertaken:-

- i) Reviewed and disseminated one (1) brochure on FAW management; ;
- ii) Evaluated two (2) synthetic insecticides submitted to KALRO by PCPB from agrochemicals industry for management of fall armyworm on maize;
- iii) Evaluated one (1) biological control agent for management of fall armyworm on maize;
- iv) Evaluated varietal response of two (2) hosts to fall armyworm.

### **Production of Aflasafe KE01**

Aflatoxin is a poisonous substance produced by fungi, *Aspergillus flavus*. Aflasafe KE01 is a biological control of aflatoxin developed to prevent the contamination of food produce by the fungi at the farm level. In the 2021/22FY KALRO:-

- i) An order (REF KKA 21) of 180 tons was received from Koppert (Aflasafe Distributor) to supply high-quality Aflasafe KE01. KALRO met the order and supplied 100% of the order as instructed by the distributor.
- ii) Implemented the policy to guide technology transfer and commercialization of Aflasafe KE01.

### **Evaluation of Pesticides for Crop Pest Management**

KALRO was accredited by Pest Control Products Board (PCPB) to undertake pesticide efficacy trials. During the FY 2021/22:

- i) KALRO evaluated fifty (50) pesticides products submitted by PCPB;
- ii) Disseminated the findings of six (6) bio-fertilizer and Bio-pesticides.

### **Develop and Promote Organic farming**

KALRO promotes food safety strategies in her research policy, and during FY 2021/2022 the following activities;

- i) Developed one (1) integrated weed management technology;
- ii) Validated and promoted one (1) organic farming technology using mushroom based manure.

### **Conservation of Plant Genetic Resources**

KALRO maintains a National Gene bank of over 46,000 accessions of different crop species collected from all over the country. In addition, the Genebank preserves the world simsim and finger millet germplasm collection. These national and international germplasms require regular rejuvenation to maintain their viability. Because of the effects of climate change, there is urgent need to continue with collection and preservation of indigenous crop germplasm that may not have been collected, lest we lose it.

During the contract period the following activities were carried out



- i) Disseminated study findings on rate of crops biodiversity loss by developing one (1) standard operating procedures on plant genetic resources conservation and utilization disseminated it;
- ii) Commercialized twenty (20) crop germplasms tolerant to climate change.

### **Develop Appropriate Agricultural Machinery and Equipment/implements**

In support of development and up scaling of agro-processing equipment/implements, agricultural mechanization research to determine appropriate agricultural machinery and their level of efficiency at farm level will be undertaken. During the FY 2021/22, the following activities were undertaken:

- i) Established linkages on improving mechanization on four value chains; Maize, Kales/spinach, Cassava and indigenous chicken and availed the implements;
- ii) Tested and availed to farmers the cassava harvester and drier.

### **Improve livestock production, productivity and product utilization**

#### **Breeding Bulls**

Sahiwal (milk and beef) and Boran (beef production) cattle breeds are tolerant to a wide range of climatic conditions and diseases that limit dairy and beef production in the country. The use of Sahiwal and Boran bulls to improve local breeds will go a long way in improving milk and beef production in Kenya. In 2021/22 FY, KALRO:

- i) Evaluated and selected dams and sires;
- ii) Availed 2,000 doses of Sahiwal semen for storage and distribution by KAGRC based on breeding values;
- iii) Availed 250 oocytes for storage and conservation;
- iv) Provided data on selected dams and sires for performance evaluation and pedigree recording of selected dams and sires by Kenya Stud Book;
- v) Carried out two (2) assessments to approve bulls for availing to farmers;
- vi) Carried out 50 inseminations using Orma Boran semen;
- vii) Availed 175 breeding bulls to farmers against a target of 280 thus the negative variance.

#### **Breeding Bucks and Rams**

Goats and sheep are critical livestock in Arid and Semi-Arid Lands (ASAL) areas of the country. Over the years KALRO has provided high quality breeding bucks and rams to the farmers. In the FY 2021/22 KALRO provided 266 breeding bucks and rams against a target of 250.

#### **Support the development of processing and value addition of livestock products**

Through interaction with farmers and County Governments, the organization:

- i) Developed two (2) milk value-added products namely: butter and cheese from goat and camel milk Initiated certification of Butter and Ghee from KALRO Ol Joro Orok (DRI) by KEBS;
- ii) Capacity built 40 farmer groups on butter and cheese processing named in (1) above in Lamu and Garissa Counties. With the support of NARIG project, the DRI training team delivered backstopping services to ToTs in Kisii, Nyamira, Migori, Homabay, Vihiga, Nandi, Bungoma and Transzoia Counties



### **Improved indigenous chicken**

Chicken play an important role in the rural communities as a source of protein delicacy and cash from the sale of eggs and meat. In the FY;

- i) 704,662 chicks were produced, against a target of 573,300; the positive variance is due to improved infrastructure thus boosting productivity at NRI.

### **Improved breeding boars and sows**

With the increased demand for pigs' product and the growth of the sub-sector in the country, KALRO will do research for development for the same through to improve its productivity. In the FY 196 breeding boars and gilts/sows were availed against a target of 50.

### **Improved honey production**

In 2021/22 FY, KALRO:

- i) Trained 220 beekeepers against a target of 100 using the bee keeping manual;
- ii) Developed two (2) value added products from honey, propolis and beeswax.

### **Develop and promote forages, improved feeds and feeding systems**

In 2021/22 FY the Organization: -

- i) Formulated and disseminated fifteen feed rations and shared with farmers;
- ii) Analyzed 3,518 animal feed samples against a target of 2850 for their nutritive values and provided feedback in terms of advice to livestock farmers and feed processors accordingly;
- iii) Released two (2) Bracharia cultivars and three (3) SPV varieties, Enteropogon macrostachyus, Cenchrusciliaris Ecotypes TVT 3, MGD 1 and Chlorisrox burghiana.

### **Improve and Maintain Livestock health and food health technologies**

During the FY 2021/22, KALRO had targeted vaccine development, testing and strategic use as key factors in maintenance of animal disease-free zones. The following activities were carried out:

- i) Capacity building on molecular techniques on Camel mastitis vaccine development-
- ii) Practical training of a staff member on WGS using the MinION technology and bioinformatics analysis of the sequence data done.
- iii) A training session with project team and write shop was held to identify proteins suitable as vaccine candidates against GBS (group B Streptococcus) derived from camel milk. Out of 59 proteins identified, four were prioritized for use in the next stage of plasmid production.
- iv) Conducted validation trials for a commercial batch of thermos-tolerant PPR vaccine in sheep and goats and produced a dossier for registration of the vaccine in the East African Region: Measurement of herd immunity for the baseline, two post-vaccination impact assessments and Laboratory analysis for field samples was carried out;
- v) Analyzed 150 post-harvest animal products samples for contaminants;
- vi) Developed two techniques for testing Mycotoxins, drug residues and heavy metals (in feeds and food) and availed to farmers;
- vii) Carried out field validation for CBPP sub-unit vaccine: Animals received 2<sup>nd</sup> vaccination at month 3. In three cohorts: a) monovalent CBPP live vaccine b) combination of live vaccine/LSD/RVF c) contavax vaccine by KEVEVAPI.



### Develop robust and sustainable forage seed systems

During the quarter, KALRO produced clean napier grass cuttings and rangelands grass seed as per Table 3 below:

**Table 3: Production of forage seed.**

Activity	Actual
Napier grass cuttings (No., '000'),	102,000
Rangelands grass seed (kg),	7,640

### Develop and promote emerging livestock including beneficial insects

Diversification of food and feed ration necessitate venturing to new front given the costs of protein supplements in the two components. In 2021/22 FY evaluation of two species of arthropods for food, feed supplement, that is black soldier fly larvae and cockroaches were identified and are used for poultry feed to supplement fishmeal.

### Develop and promote agricultural and livestock waste management

KALRO developed and promoted two solid/liquid waste management technologies (fertigation, sewage clean-up, biogas).

Also promoted three (3) products: bio-slurry, composting and organic manure for use as a bio-fertiliser in some pilot farmers' homes in Nyeri, Nyandarua and Taita Taveta counties through Climate Smart Project.

**Develop and promote climate change adaptation and mitigation technologies** During the quarter, the following is be done:

- i) Developed and promoted six (6) climate smart and natural resource adaptation technologies, innovation and management practices;
- ii) Developed and promoted six (6) energy saving environmentally sustainable technologies.

### Soil Analysis and Recommendations

In alignment to the "Big Four" agenda on Food and Nutrition Security, KALRO will undertake soil analysis to enhance food productivity through targeted fertilizer application to specific soil requirements. During the quarter, the following activities were targeted: -

- i) Ensured that more farmers know the need of soil analysis and the availability of the services, the organization held 2 meetings per county to promote soil analysis services in each of the following five (5) Counties (Bomet, Nyandarua, Uasin Gishu, Garissa, Nyeri);
- ii) Analyzed **21,181** soil samples against **27,000** from clients and feedback given to them. This service is demand driven, and also the organization has less soil testing equipment hence the negative variance;
- iii) Developed and promoted three (3) agriculture and livestock waste management technologies.

Knowledge, information and technologies on agricultural products value chains research collated, stored and shared Promotion of knowledge, information and technologies.

During the FY 2021/22, the following activities were undertaken under the performance target:

- i) Conducted **522** against **650** stakeholder-training sessions on various crops and livestock husbandry practices throughout the country;



- ii) Developed **16** visibility materials against a target of **10** and disseminate the same through all available media forums;
- iii) Trained **117** against targeted **60** Agricultural Product Value Chain (APVC) and Innovation Platform champions;
- iv) Held **148 consultative** fora against a target of **150** that is: institute-based research priority setting fora based on their Agricultural Product Value Chains (APVC) mandate; engagements with strategic partners and research coordination forums (i.e. project steering committee meetings).

### **Research Proposals and Publications**

To enhance research funding and ensure research findings are shared with stakeholders on timely basis, KALRO undertook the following activities

- a) Developed and submitted **104** against target of **32** research proposals for funding;
- b) Submitted **271** internally reviewed papers for publications in peer reviewed refereed journals against a target of **250**;
- c) Developed **285** internally reviewed technical publications against a target of **250**;
- d) Developed and updated 132 against 300 targeted extension materials, that included policy briefs, technical bulletins, pamphlets, leaflets and online library;
- e) Submitted 256 papers internally reviewed for presentation in scientific conferences against a target of 250;
- f) Developed and published agricultural market information on four (4) commodities namely cashewnuts, rice, coffee and milk;
- g) Conducted economic analysis studies in two institutes BRI and HRI and availed reports.

### **Project Completion rate**

In the FY,

- a) Construction of Perimeter wall FCRI- Kabete was completed;
- b) Construction of Car Park at KALRO HQ –quotation was raised; bidding was done, but was non-responsive. This will be redone;
- c) Office block (OI Jororok subcentre)-Design and documentation was completed.

### **TI (Science, Technology and Innovation) mainstreaming**

In 2021/22FY: -

- i) KALRO designated a Science, Technology and Innovation (STI) Focal person to steer STI mainstreaming and infusion within the organization and trained the Focal person(s) and STI champions on matters of Research, Science, Technology and Innovation (RSTI);
- ii) Documented information on human capacity, and Infrastructure/facilities in Research, Technology and Innovation;
- iii) Developed the Institutional Science, Technology and Innovation (STI) Strategy using the template provided;
- iv) Implemented the developed Institutional STI Strategy by undertaking the following interventions: -



- a) Documented Research programmes/ projects in their respective institutions and funding Sources: Government (exchequer and A-in-A) and Donors;
- b) Ensured annual budgetary allocation for R&D is at least 2% of the operational budget (Provide total institutional budget and the total expenditure in R&D);
- c) Undertook: Research and Development; Technology Development, protection, Transfer and commercialization; Innovation and Commercialization;
- d) Disseminated research findings/recommendations, and technology innovations through conferences, workshops, seminars among others;
- e) Quarterly reports submitted to NACOSTI.



## **VII. CORPORATE GOVERNANCE STATEMENT**

### **Overview**

The Kenya Agricultural and Livestock Research (KALR) Act, No 17 of 2013 established the Kenya Agricultural and Livestock Research Organization (KALRO) as a consequence, Kenya Agricultural Research Institute (KARI), Kenya Sugar Research Foundation (KESREF), Tea Research Foundation of Kenya (TRFK) and the Coffee Research Foundation (CRF) were merged. The Organization consists of the Board of Management and a Secretariat which implements Board decisions. The Act further established 16 Research Institutes which focus on different thematic research areas. KALRO complies fully and strictly with all requirements of the regulatory and other non-commercial entities in Kenya including clarity of financial reporting and accountability to the public (citizens and stakeholders) and aims to set best practice standards in agricultural research and fair conduct towards its staff, suppliers and general public.

The KALRO Board of Management held 19 Board meetings during the period under review. A schedule of the board meetings held and attendance by members is attached herein. The Board has a board charter; new members are issued with a copy upon joining the board. The process of appointment and removal of board members is outlined in the KALR Act Sections 6,7 and 8. Further, the roles and functions of the Board are listed under Section 9 of the KALR Act. The Board ensures that a performance evaluation is conducted annually and results therefrom discussed. The Board's remuneration is guided by the Guidelines for Terms and Conditions of Service for Chancellors of Public Universities, Board Chairpersons, Board Members and Staff of State Corporations. New members are taken through induction by being issued with copies of the KALR Act, Strategic Plan, Board Charter, main organizational policies and a presentation on the Organization which is done by the Director General. Training for Board Members is conducted from time to time on a need basis.

### **Organization structure**

KALRO is governed by a Board of Management as per the KALR Act No. 17 of 2013, while the day to day management is vested in the Director General who is the secretary to the Board.

The object and function for which the organization is established is to:

- a). Promote, streamline, coordinate and regulate all research in crops, livestock, genetic resources and biotechnology in Kenya;
- b). Promote, streamline, coordinate and regulate research in crops and animal diseases; and
- c). Expedite equitable access to research information, resources and technology and promote the application of the research findings and technology in the field of agriculture.



## **Appointment of the Board**

The Board is appointed pursuant to the provisions of KALRO Act No 17 of 2013. The Chairman of the Board is appointed by the President of the Republic of Kenya. Members of the Board are appointed by the Cabinet Secretary, Ministry of Agriculture and Livestock Development on recommendation of various nominating institutions provided under the KALRO Act.

## **Board Organization and Structures**

The composition of the KALRO Board of Management consists of

- a) Chairperson appointed by the President;
- b) The Principal Secretary in the Ministry for the time being responsible for agriculture;
- c) The Principal Secretary in the Ministry for the time being responsible for finance;
- d) The Principal Secretary for the time being responsible for livestock;
- e) The Secretary to the Science Council appointed under paragraph 6 of the Second Schedule to the Science and Technology Act;
- f) Five persons appointed by the Cabinet Secretary, of whom
  - i) One represents the interests of farmers;
  - ii) One shall represent the interest of the general public;
  - iii) One shall be a representative of an institution of higher learning;
  - iv) Two persons co-opted by the Board, who may be non-citizen scientists in the field of agriculture and who possess such knowledge and experience as may be necessary for the better carrying out of the functions of the Board; and
  - v) The Director General appointed in accordance with Section 14.

## **Role of the Board of Management**

The Board provides organizational strategic direction and oversight to management as provided in the KALRO Act which states that the functions of the Board of Management of KALRO shall be:

- a) Carry out the objects and functions of the Organization;
- b) Advise the Cabinet Secretary on Matters of policy relating to agricultural research;
- c) Oversee the effective co-ordination of the operations of the Organization;
- d) Ensure that the activities of the Organization are consistent with the policy and objectives of the government, and the national priorities relating to agriculture and agricultural research;
- e) Approve, oversee and evaluate on a continuing basis the programs being implemented by the Organization;
- f) Direct strategic research and policy and prioritize and determine the research agenda;
- g) Co-operation with other lead agencies and organizations in carrying out agricultural research;
- h) Development of an economic, efficient and cost effective internal management structure, strategic Annual plan of the Organization;
- i) Implementation and fulfilment of the policies and agreed objectives, performance targets and service standards of the Organization;
- j) Provision of advice as required on all matters within the responsibility of the Organization; and
- k) Perform such other functions as may be necessary for the exercise of its powers under the Act.



## Board Meetings

The Board and its Committees' are required to meet not less than four times in any calendar year and not more than four months shall lapse between the date of one meeting and the date of the next meeting. In addition to the regular Board meetings, there may be other special meetings to deal with specific matters. During the financial year under review the KALRO BoM held meetings as per attendance report Table below;

Names of Members	Board Meetings		Board Committee Meetings			
			Research, Technical & Innovation	Finance & Administration		Audit, Risk & Governance
	Scheduled	Special	Scheduled	Scheduled	Special	Scheduled
Mr. Wilfred C. Rotich	4	2	4	4	0	4
Mrs. Mary Mwambia	4	1	4	3		1
Mr. Elijah K. Nguyo	2	2	2			2
Dr. Samuel N. Mburu	4	2	4	4		
Ms. Clara W. Mwangi	1					
Mrs. Grace G. Kimaru	4	2	4	4		4
Ms. Teresa Karanja	4	1	4	4		3
Ms. Margaret Wamuyu	3	2		3		4
Prof. Walter O. Oyawa	4	1	2			
Mr. Isaac Odek	4	2	2	2		
Dr. Eliud K. Kireger	4	2	1			3

## Other Board information

The KALRO Board of Management is answerable to the Government through the parent Ministry. The board signs a Performance Contract (PC) every financial year with the Government through the same Ministry outlining performance targets in line with the above stated functions. The signed PC is monitored and evaluated periodically and at the end on the contract term.

## Board Committees

To effectively discharge its mandate, the Board established committees with specific terms of reference.

The Board appointed into committees, members with requisite skills and competence to discharge allocated responsibilities. In the event that a committee lacked specific skills within its membership, the Board, with the approval of the oversight body, co-opt skilled non-Board members to serve on the committee, provided that the chair of a committee shall not be a co-opted member or the Chairperson of the Board. The Board may, from time to time, rotate Board members between the Committees.



The Board remains collectively responsible for the decisions and actions taken by any committee. A committee may only perform the tasks delegated to it by the Board and may not exceed the authority or powers of the Board.

The Chairperson of each Committee, in consultation with the Board, determined the frequency of committee meetings as is necessary to fulfill the committee's functions. The Chairperson of each committee, in consultation with management, developed the committee's agenda. The Board however determined the procedure and process within which committees take independent professional advice at the organization's expense.

The committees promptly reported to the Board any actions taken for ratification and any major developments that they become aware of. The Board as set out in the terms of reference of the respective committees, received reports of the committee's findings and actions.

The Board established the following standing committees:-

- i. Audit, Risk and Governance,
- ii. Finance and Administration,
- iii. Research, Technical and Innovation

The Organization may establish any other ad hoc committees to handle any special business. The above committees permit and facilitate more in-depth deliberations on issues that would otherwise, not be possible in a normal full Board Meetings. The Committees undertake preliminary discussions of the business of the board and prepare their resolutions for deliberations and adoption by the full Board Meetings. A decision of any of the Committees only becomes effective after it has been approved and confirmed by the full board.

### **Communication**

The Board receives management reports in advance of all scheduled meetings and in turn formally, communicates to staff through the Director General. Informal communication to staff may be made during Board meetings while in the Organization. Board members cannot commit the Board in any way when having informal communication with staff.



## VIII. MANAGEMENT DISCUSSION AND ANALYSIS

### a) Operational performance

During the Financial Year 2021/22, KALRO implemented various projects and programmes under the Crops and Livestock Research as discussed in detail in the report of the directors. The Programmes were mainly funded through Government grants, Development partners and internally generated funds.

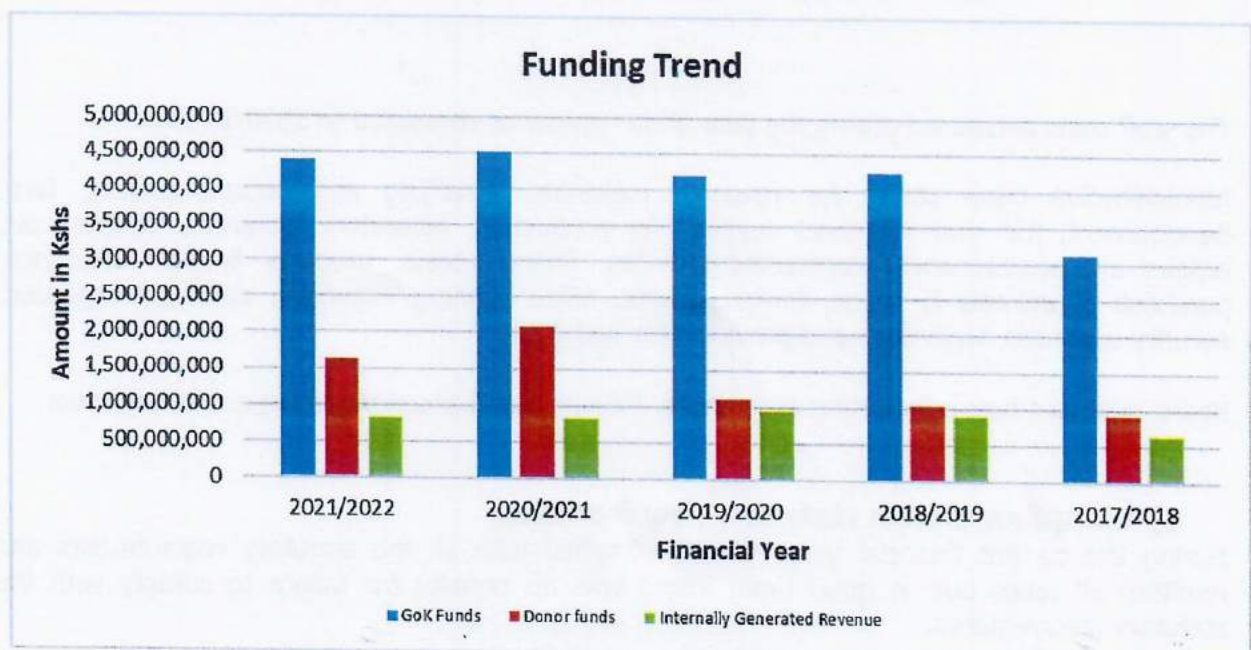
Government grants were mainly used for personnel emoluments, operations and maintenance. Donor funds were used for research technologies in line with partnership agreements. Internally generated funds were used to cater for utility bills and ploughed back to generate revenue

### b) Financial performance

#### i. Funding trends

The following is a summary of the income organization received in the last five years;

Source of Funds	2021/2022 (Kshs.)	2020/2021 (Kshs.)	2019/2020 (Kshs.)	2018/2019 (Kshs.)	2017/2018 (Kshs.)
GoK Funds	4,396,714,989	4,534,643,420	4,226,479,908	4,199,461,130	4,253,740,000
Donor funds	1,617,359,474	2,086,566,905	1,137,578,844	1,103,777,575	1,028,292,514
Internally Generated Revenue	797,953,098	818,259,466	879,724,957	938,341,409	888,673,027
<b>Total Revenue</b>	<b>6,812,027,561</b>	<b>7,439,469,791</b>	<b>6,243,783,709</b>	<b>6,241,580,114</b>	<b>6,170,705,541</b>

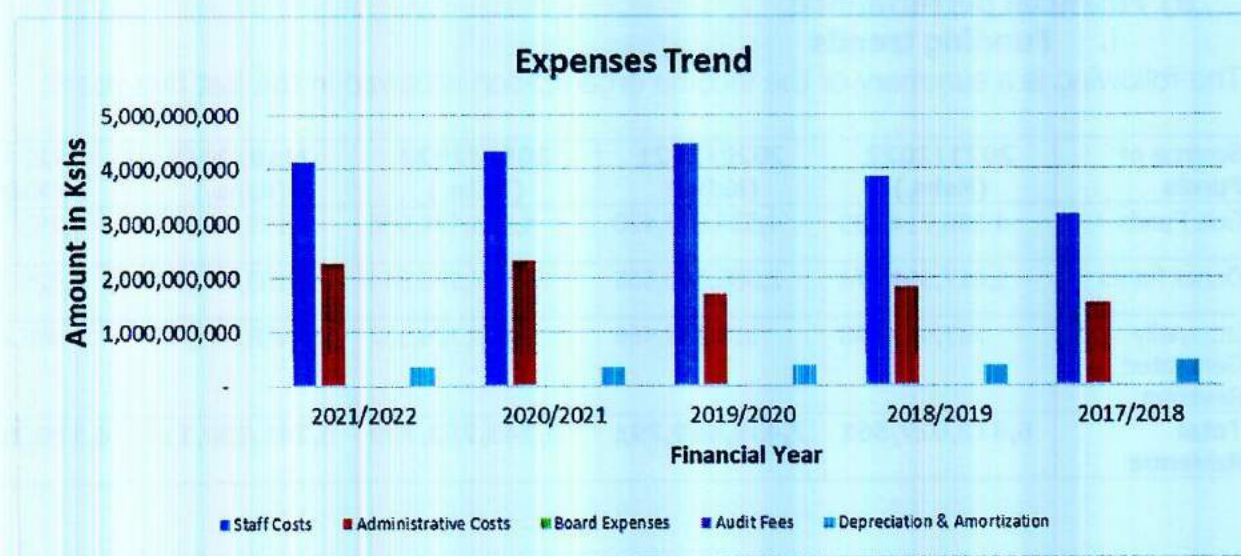




## ii. Expenditure trends

The following is a summary of the expenditure in the last five years;

Expenses	2021/2022 (Kshs.)	2019/2020 (Kshs.)	2018/2019 (Kshs.)	2017/2018 (Kshs.)	2016/2017 (Kshs.)
Staff Costs	4,141,215,771	4,325,254,026	4,173,383,007	4,468,850,596	3,839,385,842
Administrative Costs	2,235,210,959	2,316,292,036	1,747,402,082	1,704,613,365	1,820,038,861
Board Expenses	12,582,898	5,962,481	12,345,491	13,408,978	5,827,027
Audit Fees	3,800,000	4,312,430	3,996,600	3,800,000	6,749,844
Depreciation & Amortization	319,960,553	352,557,374	385,381,833	360,221,967	369,254,021
<b>Total</b>	<b>6,712,770,181</b>	<b>7,004,378,347</b>	<b>6,322,509,013</b>	<b>6,550,894,906</b>	<b>6,041,255,595</b>



The staff costs decreased during the year under review as compared to 2020/21 FY.

Administrative costs caters for research materials, travelling and accommodation, farm development, fuel and lubricants supplies for production, laboratory materials, utilities cost, repairs and maintenance, contracted services, finance costs, property & staff insurance, purchase of animals & seeds, farmer grants, office running expenses, cafeteria expenses, security expenses, legal dues and provision for bad debts.

Board expenses caters for sitting allowances, travelling and accommodation and honorarium.

## c) Compliance with statutory requirements

During the current financial year, KALRO complied with all the statutory requirements and remitted all taxes due in good time. There was no penalty for failure to comply with the statutory requirements.



**d) Material arrears in statutory and other financial obligations**

KALRO is faced with liability relating to NSSF penalty for the period January 1998 to January 2008 which amounted to Ksh. 206.49million. KALRO continues to settle the obligation and the amount outstanding as at 30<sup>th</sup> June 2022 was Kshs.26.29 million. This is recognized in the financial statement as a liability.



## **IX. ENVIRONMENTAL AND SUSTAINABILITY REPORTING STATEMENT**

Demand of agricultural technologies and increased consumption of agricultural products obligates KALRO to provide demand-driven solutions to agricultural challenges locally, regionally and internationally through cutting-edge research. These is achieved through observation of the Organization's core values, namely; Customer focus, Professionalism, Integrity, Innovativeness, Collaboration and Environmental consciousness. Below is an outline of the Organization's policies and activities that promote sustainability:

### **i) Sustainability strategy and profile**

Being the premier agricultural and livestock research organization in Kenya, KALRO is obligated to provide demand-driven solutions to agricultural challenges locally, regionally and internationally through cutting-edge research. Thus, KALRO not only focuses on addressing the national challenges but also lead globally through partnerships, collaboration and networking to generate technology and innovations. KALRO is guided by its Vision "Excellence in agricultural and livestock research towards transformed livelihoods"; and Mission "To conduct agricultural research through application of science, technology and innovation to catalyse sustainable growth and development in agriculture and livestock product value chains".

### **ii) Environmental performance**

#### **a) Environment policy**

Sustainability is a guiding influence for all KALRO research programs. It is based on a simple principle: Everything that we need for our survival and well-being depends either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which the Kenyan communities can exist in productive harmony to support present and future generations.

The Organizations pursuit for Environmental Sustainability in anchored in law. We integrate environmental considerations in our operations to fulfil the requirement of a clean, healthy and sustainable environment for all as per article 42 of the Constitution and EMCA Cap 387. KALRO also has a draft Environment Policy that guides its research activities to adopt and maintain good practices that contribute to the quality of environment on a long term basis.

#### **b) Successes**

Institutionalization of environment issues by creating an office that coordinates and oversees - Assistant Director, Environment sustainability.

Involvement in the World Environment Day (held every year on the 5<sup>th</sup> June) National Annual Tree planting day and as called out by the Ministry of Environment (last held on Thursday 21<sup>st</sup> April 2022). KALRO also established an Annual KALRO Tree planting day, observed by all the Institutes and Centres that was last observed on Friday 20<sup>th</sup> May



2022. The Organization also maintains fruit and tree nurseries in several Institutes and Centres' which also serve in KALRO's CSR activities, e.g. Tea Research Institute (TRI), Coffee Research Institute (CRI), Sugar Research Institute (SRI), Horticulture Research Institute (HRI), Food Crops Research Institute (FCRI), Dairy Research Institute (DRI), Agricultural Mechanization Research Institute (AMRI), Non-Ruminant Research Institute (NRI), Apiculture and Beneficial Insects Research Institute (ABIRI) and, Industrial Crops Research Institute (ICRI).

For better soil and water health. KALRO collects and also receives soils, fertilizers and water samples at its referral laboratories at KALRO Kabete, as well as in other Institute laboratories, e.g. TRI, CRI, SRI, NRI-Kakamega, FCRI-Muguga, FCRI-Embu and FCRI-Kisii. These laboratories make recommendations to farmers on the health status of the soils and management; recommended fertilizer use; crops suitability using leaf analysis; promotion of efficient drip irrigation for water conservation.

Soil conservation measures. KALRO has been upscaling several technologies aimed at controlling soil erosion. This includes; terracing, water harvesting, conservation agriculture, mulching, etc.

#### **c) Shortcomings**

Whereas KALRO has vast research land in the various Centres, there are limited financial resources to scale up the environmental related activities.

#### **d) Efforts to manage biodiversity**

KALRO through the Genetic Resources Research Institute (GERRI) has conserved various plant accessions that can be used in future. Other efforts to conserve biodiversity include; in-situ sites at TRI, CRI and SRI. Through its activities like field days, farmer demonstration and trainings, the organization also creates awareness to its stakeholders on the importance of biodiversity.

#### **e) Waste management policy**

The Organization promotes waste separation at source in the various Institutes and Centre's. Some of the waste is incinerated at source and some is taken to licensed incinerators. The KALRO Waste Disposal guidelines is as prescribed in the Environmental policy.

#### **f) Efforts to reduce environmental impact of the Organization's products.**

To reduce the environmental impact of the organizations products, Climate Smart Agricultural (CSA) practices and Good Agricultural Practices (GAP) are promoted in all the farming systems. These practices aim at optimizing production and at the same time conserving the environment. Environmental Impact Assessment (EIA) is done for all major projects and programs that may have an environmental impact. In many cases controlled trials are undertaken to minimize or reduce any negative environment externalities.



### **iii) Employee welfare**

KALRO has a Human Resource Policy & Procedures Manual developed to support service delivery, commitments and obligations of the Kenya Agricultural & Livestock Research Organization (KALRO) to the targeted beneficiaries. The manual sets the guidelines on recruitment and selection of members of staff, management and development of human resource in the Organization. It is also the official means for the Organization to communicate its policies on human resource management related matters

### **iv) Responsible Supply chain and supplier relations**

KALRO enhances responsible supply chain and supplier relations through;

- a. Making good use of government procurement policies and rules through adaptation and adherence to Public Procurement and Asset Disposal Act (PPADA) revised edition 2016 and its regulations of 2020 and any other circulars.
- b. Establishing a strong Procurement Management Framework through mapping out workflows, and building out Standard Operating Procedures (SOPs).
- c. Ensuring transparency in all organizational Procurement through managing and updating the approved supplier lists often, keeping contact information of reliable suppliers while staying on the lookout for new contacts and opportunities.
- d. Conducting audits frequently. This is done through subjecting suppliers to high standards and evaluating their performance (appraisals) regularly to ensure they're meeting organization demands at competitive rates
- e. Engaging Suppliers through Strategic supplier relationships. This is achieved by building a solid relationship, integrating with suppliers by ensuring vendors deliver reliable, high-quality goods and services on time and at the best rate.
- f. By automating procurement processes and other cognate departmental procedures e.g. ERP (Enterprise Resource Planning). This ensures efficiency and timely settlements of supplier thus honoring their credit periods.

### **v) Corporate Social Responsibility / Community Engagements**

KALRO seeks to participate and contribute in Social and Economic development of local communities that it operate within through Corporate Social Responsibility (CSR) activities. With the guidance of KALRO Strategic Plan 2017-2021, the Organization is committed to setting aside funds for CSR activities. The Management of the Organization through its CSR Committee at the Secretariat and Center level, plans and monitor the expenditure of its CSR activities. The CSR activities assist in building relationships with local communities, internal and external stakeholders, and the society at large.

Currently, a KALRO CSR Policy has been formulated in line with the strategic plan and lays down guidelines and mechanisms for adoption by the organization in order to carry out all CSR Project/ Programs. The Policy is a guideline for KALRO CSR activities



intended to support local communities on a variety of socially suitable activities with a view to enable high impact of and ensure measurable outcomes of the funds deployed towards such activities.

All CSR activities undertaken for the FY 2020/21 were implemented through a focused approach towards target beneficiaries for generating maximum impact with most of the activities being carried out in partnership with other credible stakeholders.

In the financial year, the organization supported various activities which fall under the sectors of environment conservation, health, education, agriculture, staff and community welfare;

<b>Centre</b>	<b>Venue and intended beneficiary</b>	<b>Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)</b>	<b>Remarks</b>
KALRO Msabaha	Imani Rehabilitation Agency for abandoned Children – Msabaha, Malindi	Community welfare	Donated one (1) Jersey heifer Id. No. X12
KALRO Kakamega	Anglican Development Services -Western	Environmental conservation, health and community welfare	Donated fruit trees for planting in hospitals
KALRO Sugar Research Institute	Kenya Sugar Research Mixed Secondary school	Community welfare	Contribution of firewood to enable the school prepare students lunches
	surrounding community	Environmental conservation	The Institute ensured 4560 trees maintained on SRI farm, 500 pawpaw seedlings generated and maintained and 180 pawpaw trees maintained
	Staff and casual from surrounding community	Health, community welfare and staff welfare	135 male condoms were distributed as well as 10 female condoms
	Staff and casual from surrounding	Health and staff welfare	Sensitization on Alcohol and Drug



<b>Centre</b>	<b>Venue and intended beneficiary</b>	<b>Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)</b>	<b>Remarks</b>
	community		Abuse done at Opapo on 9th February 2022
	SRI and surrounding community	Environmental conservation	Trees planting day at KALRO SRI was held on 18th May 2022 whereby Staff members and neighboring community participated in planting 4,000 assorted trees at the River Kibos bank and SRI Farm.
	SRI and surrounding community	Environmental conservation	The WRC Safari Rally Greening Legacy project in collaboration with KCB bank and KALRO SRI also participated in tree planting at KALRO SRI on 4th June 2022 where 500 bamboo trees and 2200 assorted trees were planted
	SRI and surrounding community	Health	HIV counseling and testing facilitated by counseling 61 individual non-patient, 27 adolescent non-patients and four (4) couple non-patients
KALRO Buchuma	Miasenyi Secondary school	Community welfare	Donation of one full load of tractor trailer



Centre	Venue and intended beneficiary	Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)	Remarks
			of dry fire wood
	Neighboring pastoral communities'	Community welfare	Donation of one full load of tractor trailer of dry fire wood during burial of their kin.
	Mackinnon road Muslim Madrasa school for the orphans	Community welfare	Donation of one full load of tractor trailer of dry fire wood
	Visit to Sajanahad school for the hand-capped in Mtwapa	Community welfare	Took Kshs.2,000 cash worthy foodstuffs and fruits to the children
	Livestock herders	Staff welfare	Food and clothing items worthy Kes 20,000 support to livestock herders while away in far grazing in borrowed pastures in ranches for drought mitigation
KALRO Coffee Research Institute	Jacaranda Football Club	Community welfare	Support Jacaranda community recreation activities nurturing community talents Provide coach for the team Maintenance of football ground
	Jacaranda community complex	Community welfare	Maintenance and cleanliness of the complex Payment of utility bills (water and electricity)



<b>Centre</b>	<b>Venue and intended beneficiary</b>	<b>Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)</b>	<b>Remarks</b>
KALRO Matuga	Mango Processing Unit Environmental Impact Assessment for Dzombo Farmers Cooperative Society	Environmental Conservation	The NRF project approved funding for renovation, installation and operationalization of Mango Processing Unit at Dzombo under management of Dzombo Farmers Cooperative Society. The processing unit is targeting to release at least two mango products (juice & dried chips) to both fresh markets and high value markets and is schedule to be operational by September 2022. One of the activity that was assigned to the society was seeking approval from all relevant regulatory bodies. In compliance with EMCA ACT 1999, an Environmental Impact Assessment (EIA) was mandatory. To hasten the approval process and help the society from EIA expenses, an EIA Lead Expert from KALRO Matuga (Dr. Juma Magogo, Expert Registration Number 8113), under facilitation of NRF project compiled and submitted the EIA



Centre	Venue and intended beneficiary	Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)	Remarks
			report to NEMA and the project was licensed for implementation in accordance with the Environmental Impact Assessment & Audit Regulations, 2003 regarding the mango processing Unit. The estimated cost of the EIA report in kind was about KES 200,000.
KALRO Matuga	KALRO Matuga Technology Transfer to Dzombo Farmers Cooperative Society	Environmental Conservation, Capacity Building	The Technology Transfer to NRF Project Beneficiaries through training in grafting and nursery management was conducted to ensure the NRF project technologies, innovations and management practices (TIMPs) are commercialized by project beneficiaries. In that regard, four farmers (1 Male Youth, 1 Female Youth, 1 Male Adult & 1 Female Adult) were nominated by Dzombo Cooperative Society Executives and were trained at KALRO KSU Matuga for five days (Monday 13 <sup>th</sup> June 2022 through



<b>Centre</b>	<b>Venue and intended beneficiary</b>	<b>Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)</b>	<b>Remarks</b>
			Friday 17 <sup>th</sup> June 2022). The technology transfer training was allocated KES 40,000.
KALRO Matuga	Masjid Fauzi, KALRO Matuga	Community Welfare	KALRO Matuga has been supplying water to the Community mosque all along until April 2022 when the mosque drilled its own borehole. In addition, KALRO Matuga has assisted the mosque committee with inputs (seeds, chemicals, fertilizer) and extension advisory services in setting up vegetable garden. All these are estimated at KES 60,000 in kind (Water – KES 40,000, Inputs – KES 10,000, Advisory – KES 10,000)
KALRO Matuga	Kwale Seminary Centre, the Sisters Community	Community Welfare, Environmental Conservation	The centre has been providing advisory services to the seminary farm on good agricultural practices to the orchards (citrus, bread fruit, and coconut). In addition KALRO Matuga issued 10 citrus seedlings (assorted varieties) and 100 breadfruits seedlings



Centre	Venue and intended beneficiary	Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)	Remarks
			(propagated at KALRO Matuga Quarantine Facility through Grace Initiative) for planting. As a contact farm, the centre identified the seminary coconut orchard as source of coconut seednuts. The total budget/expenditure in kind is about KES 281,300 (Breadfruits seedlings – KES 250,000, Citrus – KES 1,300, Advisory – KES 30,000)
KALRO Matuga	Maweni Farm, Magaoni, Kwale County	Community Welfare, Environmental Conservation	Maweni Farm was identified as one of the contact farms and source for rough lemon for rootstock and scions (particularly mangoes). In order to guarantee quality planting materials, KALRO Matuga has been offering advisory services on GAPs estimated at about KES 50,000 in kind.
KALRO Matuga	Institutional young farmers	Environmental Conservation	Through Grace Initiative, the Center quarantine facility received 1800 ( <i>Ma'afala Artocarpus Altilis Type 2 – 143,</i>



Centre	Venue and intended beneficiary	Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)	Remarks
			<p><i>Artocarpus Otea</i> – 1,657) seedlings. The 1,800 breadfruit seedlings that were received, only 640 (<i>Ma'afala Artocarpus Altilis Type 2</i> – 139, <i>Artocarpus Otea</i> – 501) seedlings survived. The seedlings were distributed to farmers in Kwale, Kilifi, Mombasa, Nairobi and Kisii Counties by Grace Initiative. In Kwale County, KALRO Matuga was responsible for distribution of 52 breadfruit seedlings. The seedlings were distributed to Msambweni secondary (4), Kikoneni Secondary (4), Francz Joseph (4), Shimbahills Secondary School (4), Lukore Secondary School (4), Kids Care – (4), Alwalidayn Centre (6), God's Children Centre (4), St. Anthony Mivumoni (4) and Mkongani Polytechnique – (4). In addition, the centre committed to offer advisory services on</p>



<b>Centre</b>	<b>Venue and intended beneficiary</b>	<b>Nature of CSR event (Environmental conservation, education, health, community welfare and staff welfare)</b>	<b>Remarks</b>
			GAPS estimated at about KES 100,000 in kind.



## **X. REPORT OF THE DIRECTORS**

The Directors submit their report together with the audited financial statements for the year ended June 30, 2022, which show the state of the Kenya Agricultural and Livestock Research Organization (KALRO) affairs.

### **a) Principal activities**

The principal mandate of KALRO is to undertake, streamline, coordinate and regulate all aspects of research in agriculture and livestock development, and promote the application of the research findings, technologies and innovations

### **b) Results**

The results of the entity for the year ended June 30, 2022, are set out on page 1 to 6

### **c) Directors**

The members of the Board of Directors who served during the year are shown on page X-XII. During the financial year, Mr. Elijah K. Nguyo retired in December 2021 and in his place Ms. Clara W. Mwangi was appointed with effect from 23<sup>rd</sup> May 2022.

### **d) Surplus remission**

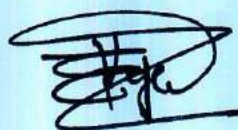
In accordance with Regulation 219 (2) of the Public Financial Management (National Government) Regulations, regulatory entities shall remit into Consolidated Fund, ninety per centum of its surplus funds reported in the audited financial statements after the end of each financial year. KALRO being an non regulatory entity hence no remittance to the Consolidated Fund

### **e) Auditors**

The Auditor General is responsible for the statutory audit of the KALRO in accordance with Article 229 of the Constitution of Kenya and the Public Audit Act 2015.

By Order of the Board

**Name:** E. K. Kireger (PhD, OGW) **Signature**



**Date** 29/09/2022

**Secretary to the Board**



## **XI. STATEMENT OF DIRECTOR'S RESPONSIBILITIES**

Section 81 of the Public Finance Management Act, 2012 and Section 14 of the State Corporations Act, require the Directors to prepare financial statements in respect of that organization, which give a true and fair view of the state of affairs of the organization at the end of the financial year/period and the operating results of the organization for that year/period. The Directors are also required to ensure that the organization keeps proper accounting records which disclose with reasonable accuracy the financial position of the organization. The Directors are also responsible for safeguarding the assets of the organization.

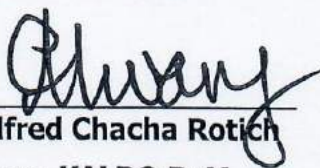
The Directors are responsible for the preparation and presentation of the organization's financial statements, which give a true and fair view of the state of affairs of the organization for and as at the end of the financial year (period) ended on June 30, 2022. This responsibility includes: (i) maintaining adequate financial management arrangements and ensuring that these continue to be effective throughout the reporting period; (ii) maintaining proper accounting records, which disclose with reasonable accuracy at any time the financial position of the organization; (iii) designing, implementing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements, and ensuring that they are free from material misstatements, whether due to error or fraud; (iv) safeguarding the assets of the organization; (v) selecting and applying appropriate accounting policies; and (vi) making accounting estimates that are reasonable in the circumstances.


The Directors accept responsibility for the organization's financial statements, which have been prepared in accordance with International Public Sector Accounting Standards (IPSAS), and in the manner required by the PFM Act and the State Corporations Act. The Directors are of the opinion that the organization's financial statements give a true and fair view of the state of organization's transactions during the financial year ended June 30, 2022, and of the organization's financial position as at that date. The Directors further confirm the completeness of the accounting records maintained for the organization, which have been relied upon in the preparation of the organization's financial statements as well as the adequacy of the systems of internal financial control.

With effect from 1st July 2014, Kenya Agricultural Research Institute (KARI), Kenya Sugar Research Foundation (KESREF), Tea Research Foundation (TRF) and Coffee Research Foundation (CRF), were dissolved in pursuant to the Kenya Agricultural and Livestock Research Act, 2013. Its newly acquired name is Kenya Agricultural and Livestock Research Organization (KALRO). This will not affect the organization going concern for at least the next twelve months from the date of this statement.

### **Approval of the financial statements**

The KALRO financial statements were approved by the Board on 29/09/2022 and signed on its behalf by:

  
**Mr. Wilfred Chacha Rotich**  
Chairman, KALRO BoM

  
**Eliud K. Kireger (PhD, OGW)**  
Director General







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*Enhancing Accountability*

## **REPORT OF THE AUDITOR-GENERAL ON KENYA AGRICULTURAL AND LIVESTOCK RESEARCH ORGANIZATION FOR THE YEAR ENDED 30 JUNE, 2022**

### PREAMBLE

I draw your attention to the contents of my report which is in three parts:

- A. Report on the Financial Statements that considers whether the financial statements are fairly presented in accordance with the applicable financial reporting framework, accounting standards and the relevant laws and regulations that have a direct effect on the financial statements.
- B. Report on Lawfulness and Effectiveness in Use of Public Resources which considers compliance with applicable laws, regulations, policies, gazette notices, circulars, guidelines and manuals and whether public resources are applied in a prudent, efficient, economic, transparent and accountable manner to ensure Government achieves value for money and that such funds are applied for the intended purpose.
- C. Report on Effectiveness of Internal Controls, Risk Management and Governance which considers how the entity has instituted checks and balances to guide internal operations. This responds to the effectiveness of the governance structure, the risk management environment and the internal controls developed and implemented by those charged with governance for orderly, efficient and effective operations of the entity.

An unmodified opinion does not necessarily mean that an entity has complied with all relevant laws and regulations and that its internal controls, risk management and governance systems are properly designed and were working effectively in the financial year under review.

The three parts of the report are aimed at addressing the statutory roles and responsibilities of the Auditor-General as provided by Article 229 of the Constitution, the Public Finance Management Act, 2012 and the Public Audit Act, 2015. The three parts of the report, when read together constitute the report of the Auditor-General.

### REPORT ON THE FINANCIAL STATEMENTS

#### **Qualified Opinion**

I have audited the accompanying financial statements of the Kenya Agricultural and Livestock Research Organization (KALRO) set out on pages 1 to 23, which comprise of the statement of financial position as at 30 June, 2022, and the statement of financial performance, statement of changes in net assets, statement of cash flows and statement of comparison of budget and actual amounts for the year then ended, and a summary of significant accounting policies and other explanatory information in accordance with the provisions of Article 229 of the Constitution of Kenya and Section



35 of the Public Audit Act, 2015. I have obtained all the information and explanations which, to the best of my knowledge and belief, were necessary for the purpose of the audit.

In my opinion, except for the effect of the matters described in the Basis for Qualified Opinion section of my report, the financial statements present fairly, in all material respects, the financial position of Kenya Agricultural and Livestock Research Organization as at 30 June, 2022, and of its financial performance and its cash flows for the year then ended, in accordance with International Public Sector Accounting Standards (Accrual Basis) and comply with the Kenya Agricultural and Livestock Research Act, 2013 and the Public Finance Management Act, 2012.

### **Basis for Qualified Opinion**

#### **1. Unaccounted for Cash and Cash Equivalents**

The statement of financial position reflects cash and cash equivalents balance of Kshs.1,443,703,000 and as disclosed in Note 22 to the financial statements. However, as previously reported, the cash and cash equivalents balance of Kshs.1,443,703,000 (2021 - Kshs.1,843,714,000) excludes cash withdrawals totalling Kshs.6,914,345 made in the financial year 2009/2010 in respect of the Sugar Research Institute against which the related supporting documents were not provided for audit. Although Management had indicated that the missing documents were a subject of investigation by the Sugar Research Institute and other arms of Government, the amount remains unaccounted for and the status of investigations was not disclosed.

In the circumstances, the accuracy and completeness of the reported cash and cash equivalents balance of Kshs.1,443,703,000 as at 30 June, 2022 could not be confirmed.

#### **2. Long Outstanding Receivables from Exchange Transactions**

The statement of financial position reflects receivables from exchange transactions balance of Kshs.491,084,000 and as disclosed in Note 23 to the financial statements. The balance includes amounts due from Kenya Seed Company, Bungoma Union, Mugama Co-operative Union and unsupported prepayments of Kshs.19,945,000, Kshs.746,000, Kshs.1,863,000 and Kshs.1,171,000 respectively all totalling Kshs.23,725,000 that had remained outstanding for more than two (2) years.

In the circumstances, the accuracy and recoverability of the receivables from exchange transactions totalling to Kshs.23,725,000 as at 30 June, 2022 could not be confirmed.

#### **3. Long Outstanding Receivables from Non-Exchange Transactions**

The statement of financial position reflects receivables from non-exchange transactions balance of Kshs.412,954,000 as disclosed in Note 24 to the financial statements which includes commodity levy of Kshs.314,497,000. Included in the latter are amounts of Kshs.7,073,687, Kshs.23,445,000 and Kshs.124,496,000 due from Nyambene Mills (in receivership), Coffee Board of Kenya and Kenya Planters Co-operative Union (KPCU), respectively which was outstanding for more than two (2) years. Although the Management made a full provision of Kshs.124,496,000 in respect of KPCU debt and forwarded a claim to the receiver Manager of Nyambene Mills (in receivership) no meaningful progress was reported towards recovery of this debt and the provision made for the other long outstanding debts was inadequate.



Further, the balance includes outstanding staff advances and outstanding imprests of Kshs.1,674,000 and Kshs.90,569,000 respectively, out of which balances totalling Kshs.1,674,000 and Kshs.3,900,000 were outstanding for more than three (3) years and one year respectively.

In the circumstances, the accuracy and recoverability of the receivables from non-exchange transactions balance of Kshs.412,954,000 as at June, 2022 could not be confirmed.

#### 4. Seizure/Confiscation of Vehicles by Auctioneers – FCRC – Njoro

The statement of financial position reflects property, plant and equipment balance of Kshs.24,123,928,000 as disclosed in Note 28 to the financial statements which includes a balance of Kshs.14,764,000 in respect of motor vehicles. However, included in the motor vehicle balance were two motor vehicles which were seized/confiscated by Legacy Auctioneering Services vide letter ref. LAS/K/022/2019 dated 16 March, 2020.

No explanation was provided on how the matter will be resolved and why the assets were still in the custody of the Auctioneer. As at the time of audit, the vehicles had not been released despite KALRO having paid Kshs.268,262 on 11 October, 2022.

In the circumstances, the completeness, accuracy and ownership of the motor vehicles balance of Kshs.14,764,000 as at 30 June, 2022 could not be confirmed.

#### 5. Inaccuracy of Depreciation and Amortization Charge for the Year

The statement of financial performance reflects depreciation and amortization expense for the year amounting to Kshs.319,961,000 as disclosed in Note 18 to the financial statements which included depreciation on property, plant and equipment amounting to Kshs.295,409,000. However, re-computation of the depreciation amount revealed variances amounting to Kshs.84,159,435 between the amounts charged and the recomputed amounts as detailed in the table below:

Item	Depreciation Charge (Kshs.)	Recalculated Depreciation (Kshs.)	Variance (Kshs.)
Motor Vehicle	42,120,000	4,942,500	37,177,500
Plant & Machinery	9,892,000	9,002,944	889,056
Office Equipment	40,002,000	14,566,852	25,435,148
Furniture & Fittings	17,053,000	13,435,888	3,617,112
Lab & Equipment	26,840,000	21,535,705	5,304,295
Infrastructure	19,227,000	7,490,676	11,736,324
<b>Total</b>	<b>155,134,000</b>	<b>70,974,565</b>	<b>84,159,435</b>

In the circumstances, the accuracy and completeness of depreciation and amortization charge for the year ended 30 June, 2022 of Kshs.295,409,000 could not be confirmed.

#### 6. Land

##### 6.1. Unresolved Land Matters

The statement of financial position reflects property, plant and equipment balance of Kshs.24,123,928,000 which as disclosed in Note 28 to the financial statements includes a balance of Kshs.18,208,626,000 in respect of land. Review of records



revealed that Management had not resolved previous years land issues as detailed below:

- i. As previously reported, land with a value of Kshs.400,000,000 in respect of 400 acres of land was allocated to the Kenya Agricultural Research Institute in 2011. However, Management did not provide for audit, ownership documents for the parcel of land.
- ii. As previously reported, included in the property, plant and equipment balance of Kshs.24,123,928,000 (2021 - Kshs.24,310,980,000) as at 30 June, 2022 was an amount of Kshs.2,932,785,960 in respect of six (6) parcels of land relating to the former Kenya Agricultural Research Institute for which the Organization did not have ownership documents.
- iii. Further, part of the Organization's land at Manera and Olmagogo farms in Naivasha - Mai Mahiu Road and another property in Katumani Centre measuring approximately 100 hectares were illegally acquired by informal developers in the year 2000. In addition, part of this land was used as a dumping site by a County Government and construction of a power station was also taking place on the same land.
- iv. Similarly, in January, 2011, some individuals invaded the Organization's land in Naivasha, claiming ownership. The Organization filed a case in court to have them evicted, and a ruling in favour of the Organization was made on 29 March, 2012 and their title documents were revoked. However, the informal settlers had not vacated the land.
- v. As reported in the previous years, fifty (56) parcels of land all under the Sugar Research Institute in Kibos area did not have ownership documents.
- vi. The property, plant and equipment balance as at 30 June, 2022 excludes undetermined value of parcels of land located in Azani and Koru measuring 99 ha and 127 ha respectively which the Coffee Research Institute used for farming. The titles to the parcels of land were in the name of the Coffee Board of Kenya (CBK) which has since merged to form the Agricultural Food Authority.
- vii. The Agricultural Mechanization Services (AMS) - a department within the Ministry of Agriculture, Livestock, Fisheries and Co-operatives occupied a portion of the Organization's land at Rukera and had set up its own buildings. Although Management clarified that the value of the constructions/improvements by the AMS were not included in the assets balance, and that AMS was devolved from the National Government to the County Government, the County Government had not signed any lease agreement and had not paid any rent to the Kenya Agricultural and Livestock Research Organization.
- viii. The property, plant and equipment balance also excludes the value of twenty (20) acre piece of land developed by the Tea Research Institute in Kirinyaga County with an estimated value of Kshs.8,430,634.
- ix. The property, plant and equipment balance includes an amount of Kshs.81,650,080 representing the value of buildings allocated to the Kenya Plant Health Inspectorate Service in 1998.
- x. The property, plant and equipment balance includes the value of an office block completed in the year 2012/2013 at a cost of Kshs.663,772,203 for Sugar



Research Institute. However, as previously reported, the valuation report on the building placed the value as Kshs.447,992,751 resulting in an overvaluation of Kshs.215,779,452. No explanation was provided on how the value of the new building dropped below the actual construction cost with such a high margin.

- xii. Included in the value of land balance as at 30 June, 2022 was an amount of Kshs.117,000,000 being the cost of land in Ruiru - Jacaranda where the Coffee Research Institute is located. Although Management indicated that the title deed was misplaced, evidence of steps taken to replace the title deed was not provided.
- xiii. Review of records indicated that the title deed for a parcel of land at Muguga was released to the Ministry of Lands, Housing and Urban Development to facilitate the excision of a portion of land allocated to the Kenya Plant Health Inspectorate Service at the time of its inception. However, the title deed got lost while in the custody of the Ministry exposing the land to the risk of alienation, unlawful excision, and subdivision.
- xiv. KALRO owns 142.06 ha of land in Matuga for which it has a title deed. However, informal settlers have encroached on this land making it impossible for the Organization to utilize the land for the purposes of agricultural research.
- xv. Included in the balance of land of Kshs.18,208,626,000 is a beach plot in Mtwapa valued at Kshs.56,734,160. However, the Organization did not have a title deed for the land. The Management explained that the land was illegally subdivided into five plots but the Commissioner of Lands revoked the allotments. A private developer filed a suit in court to affirm ownership of the beach plots. The matter had not been determined as at 30 June, 2022 and ownership of the plots could not be confirmed.
- xvi. The balance also excluded the value of a parcel of land on which five (5) buildings located in Kitale, while in Kakamega, staff houses belonging to the Non-Ruminant Centre were constructed on twenty (20) acres of land that were left out during allotment of the land to the Organization.
- xvii. Further, included in the balance of land of Kshs.18,208,626,000 are 1418 Ha of land in Lanet where the National Beef Research Centre is located. Records held at the Organization indicated that in 1984 a farmer surrendered two hundred and thirty (230) acres of his land to the Government and it was agreed that he would be compensated with an equivalent acreage of vacant land at the Beef Research Institute. However, the farmer was instead allotted two hundred and seventy acres (270), an excess of forty (40) acres. Further, the farmer violated the conditions of the land exchange and occupied the developed part of the land leading to destruction of property belonging to KALRO. The said part of the land had since been subdivided into plots for sale to the public. In addition, records provided indicated that another farmer agreed to surrender three hundred and twenty acres (320) of his land in Nakuru but during exchange and transfer of the land he irregularly acquired an extra one hundred and fifty-two acres (150) of KALRO's land. Additionally, informal settlers have been trying to encroach the land since year 2014. There is a high risk that the Organization may lose the disputed parts of its land in Lanet.



xviii. The balance of land of Kshs.18, 208,626,000 does not include the value of the parcels of land situated in Msabaha, Kilifi, Njoro in Nakuru, five (5) parcels of land in Limuru, Kiambu and a parcel of land in Alupe Sub-Centre, Busia.

## **6.2. Illegal Land Encroachment**

Examination of various documents at BRI Lanet revealed that informal settlers have been encroaching the land. There is therefore a high risk that the Organization may lose the disputed parts of its land in Lanet. Further, the County Government of Kisii had taken over part of the Organization land meant for food Crop Research Institute Kisii located in the outskirts of Kisii town. The County Government was constructing the Governor's residence in approximately two acres of the grabbed land while a cancer centre was being constructed in the other parcel estimated at one acre without a consent from the Organization.

In the circumstances, the ownership, completeness and valuation of land balance of Kshs.18,208,626,000 as at 30 June, 2022 could not be confirmed.

The audit was conducted in accordance with International Standards of Supreme Audit Institutions (ISSAIs). I am independent of the Kenya Agricultural and Livestock Research Organization Management in accordance with ISSAI 130 on Code of Ethics. I have fulfilled other ethical responsibilities in accordance with the ISSAI and in accordance with other ethical requirements applicable to performing audits of financial statements in Kenya. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified opinion.

### **Key Audit Matters**

Key audit matters are those matters that, in my professional judgment, are of most significance in the audit of the financial statements. There were no key audit matters to report in the year under review.

### **Other Matter**

#### **Unresolved Prior Year Matters**

In the audit report of the previous year, several issues were raised under the Report on Financial Statements, Report on Lawfulness and Effectiveness in Use of Public Resources and Report on Effectiveness of Internal Controls, Risk Management and Governance. However, the Management has not resolved the issues or given any explanation for the failure to resolve them.

## **REPORT ON LAWFULNESS AND EFFECTIVENESS IN USE OF PUBLIC RESOURCES**

### **Conclusion**

As required by Article 229(6) of the Constitution, based on the audit procedures performed, except for the matters described in the Basis for Conclusion on Lawfulness and Effectiveness in Use of Public Resources section of my report, I confirm that, nothing else has come to my attention to cause me to believe that public resources have not been applied lawfully and in an effective way.



## **Basis for Conclusion**

### **1. Idle Asset**

As previously reported, property, plant and equipment balance of Kshs.24,123,928 includes value of Tea Research and Development Factory at the Tea Research Institute in Kericho. The Government had spent an amount of Kshs.304,505,436 on the project to completion but the facility is yet to be commissioned and lies idle due to lack of funds to purchase machinery for operationalization of the venture.

In the circumstances, value for money on resources utilized in the construction of the factory could not be confirmed.

### **2. Non-Operationalization of Agricultural Research Fund**

The statement of financial performance reflects amounts of Kshs.78,000,000, Kshs.966,718,000 and Kshs.650,641,000 in respect of Government of Kenya, World Bank and other Donors development funding for research activities for the year ended 30 June, 2022. However, as previously reported, the Organization had not operationalized the Agricultural Research Fund which should be managed by trustees to manage these funds and support the operations of the organization contrary to Section 39(1) of the Kenya Agricultural and Livestock Research Act, 2013 that provides that there is established a fund to be known as the Agricultural Research Fund.

Further, the Organization did not provide for audit, details of research grants obtained during the year under review and their respective agreements, outcomes of concluded research, distribution of the research outcomes and the custody over the research outcomes.

In the circumstances, the Management was in breach of the law.

### **3. Anomalies in Kenya Agricultural and Livestock Research Act, 2013**

As previously reported, the Kenya Agricultural and Livestock Research Act, 2013 had set 1 August, 2014 as the commencement date for the operation of the Organization. The Act repealed the Science and Technology Act, 250, Coffee Act (No.9 of 2001), Sugar Act, (2001) and the Tea Act, Cap 343 which had established the Kenya Agricultural Research Institute (KARI), the Coffee Research Foundation (CRF), the Kenya Sugar Research Foundation (KESREF) and the Tea Research Foundation (TRF), respectively. However, other than the Kenya Agricultural Research Institute, which was operating under the Science and Technology Act Cap. 250 of the Laws of Kenya, the other parastatals were operating under the Companies Act, Cap 486 of the Laws of Kenya. According to Section 221(1) of the then Companies Act, Cap. 486, an application to the court for winding up of a Company shall be by petition presented, subject to the provisions of this section, either by the Company, by any creditor or creditors (including any contingent or prospective creditor or creditors), contributory or contributories, or by all or any of those parties, together or separately.

Management, however, did not provide evidence that this provision of the Companies Act, Cap 486 was complied with in the establishment of KALRO. Although Management stated that the entities were not wound up but merged, this explanation seems to be in contradiction with Section 56 of the Kenya Agricultural and Livestock Research Act, 2013 which states that, any reference to the former institution in any written law or in any contract, document or instrument of whatever nature shall, on the commencement of this Act, be read and construed as a reference to the Organization.



In the absence of such evidence therefore, the Coffee Research Foundation (CRF), the Tea Research Foundation (TRF) and the Kenya Sugar Research Foundation (KESREF) are still legally in existence.

In the circumstances, the Management was in breach of the law.

#### **4. Board not Fully Constituted**

The statement of financial performance reflects Board expenses amounting to Kshs.12,583,000 and as disclosed in Note 16 to the financial statements. Review of Board payments and related records revealed that the Board had ten (10) Members contrary to Section 6(1) of the Kenya Agricultural and Livestock Research Act, 2013 that provides for twelve (12) Members. No explanation was provided for the anomaly.

In the circumstances, the Management was in breach of the law.

The audit was conducted in accordance with ISSAI 4000. The standard requires that I comply with ethical requirements and plan and perform the audit to obtain assurance about whether the activities, financial transactions and information reflected in the financial statements are in compliance, in all material respects, with the authorities that govern them. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my conclusion.

### **REPORT ON EFFECTIVENESS OF INTERNAL CONTROLS, RISK MANAGEMENT AND GOVERNANCE**

#### **Conclusion**

As required by Section 7(1)(a) of the Public Audit Act, 2015, based on the audit procedures performed, except for the matters described in the Basis for Conclusion on Effectiveness of Internal Controls, Risk Management and Governance section of my report, I confirm that, nothing else has come to my attention to cause me to believe that internal controls, risk management and overall governance were not effective.

#### **Basis for Conclusion**

##### **1. Ageing Workforce and Inadequate Staffing**

As disclosed in Note 14 to the financial statements, the statement of financial performance reflects an amount of Kshs.4,141,216,000 in respect of staff costs. Review of human resource management records revealed that the Organization operates with inadequate staff of 1,674 out of 3,612 provided in the authorized staff establishment. Although Management explained that the Organization had recruited two hundred and twenty-four (224) additional staff, the proposed additional number was insufficient to cover the gap.

In addition, Management engaged 496 interns in the year under review to bridge the staffing gap. However, the Organization engaged interns for periods exceeding twelve (12) months contrary to Section 2.9.4 of the KALRO Human Resource Manual September, 2017 which states that, internship programmes shall not exceed twelve (12) months.

Further, an analysis of staff ages as at 30 June, 2022 revealed that 68% of the Organization's workforce was aged between 51 and 65 years. However, no explanation was provided on the succession strategies adopted to ensure retention of key skills in the Organization.



Under the circumstances, the Organization's succession strategies put in place to ensure retention of key skills in the Organization could not be confirmed.

## **2. Safeguard of the Livestock – Beef Cattle National Stud**

Review of a Memo No. KALRO/ASTU/22/1 dated 29 November, 2022 on a complaint about the then Anti – Stock Theft Unit Inspector Commanding Lanet Station revealed that the Inspector was rearing over fifty heads of cattle adjacent to the Beef Cattle National Stud Farm in Lanet where there was no physical boundary. The cattle were transported from Laikipia County which was reported to be under quarantine for contagious Bovine Pleuro – Pneumonia (CBPP) which is a deadly disease. However, no documentation and reasons as to why the complaint had not been addressed through relevant Government Agencies since Lanet was a designated quarantine station for cattle.

In the circumstances, the Beef Cattle National Stud Farm may be vulnerable to diseases and infections from the non-quarantined herds.

The audit was conducted in accordance with ISSAI 2315 and ISSAI 2330. The standards require that I plan and perform the audit to obtain assurance about whether processes and systems of internal controls, risk management and overall governance were operating effectively, in all material respects. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my conclusion.

### **Responsibilities of Management and the Board of Management**

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Public Sector Accounting Standards (Accrual Basis) and for maintaining effective internal controls as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error and for its assessment of the effectiveness of internal controls, risk management and overall governance.

In preparing the financial statements, Management is responsible for assessing the Organization's ability to continue to sustain its services, disclosing, as applicable, matters related to sustainability of services and using the applicable basis of accounting unless Management is aware of the intention to terminate the Organization or to cease operations.

Management is also responsible for the submission of the financial statements to the Auditor-General in accordance with the provisions of Section 47 of the Public Audit Act, 2015.

In addition to the responsibility for the preparation and presentation of the financial statements described above, Management is also responsible for ensuring that the activities, financial transactions and information reflected in the financial statements are in compliance with the authorities which govern them, and that public resources are applied in an effective way.

The Board of Management is responsible for overseeing the Organization's financial reporting process, reviewing the effectiveness of how Management monitors compliance with relevant legislative and regulatory requirements, ensuring that effective processes and systems are in place to address key roles and responsibilities in relation to governance and risk management, and ensuring the adequacy and effectiveness of the control environment.



## **Auditor-General's Responsibilities for the Audit**

The audit objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion in accordance with the provisions of Section 48 of the Public Audit Act, 2015 and submit the audit report in compliance with Article 229(7) of the Constitution. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISSAIs will always detect a material misstatement and weakness when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

In addition to the audit of the financial statements, a compliance audit is planned and performed to express a conclusion about whether, in all material respects, the activities, financial transactions and information reflected in the financial statements are in compliance with the authorities that govern them and that public resources are applied in an effective way, in accordance with the provisions of Article 229(6) of the Constitution and submit the audit report in compliance with Article 229(7) of the Constitution.

Further, in planning and performing the audit of the financial statements and review of compliance, I consider internal controls in order to give an assurance on the effectiveness of internal controls, risk management and overall governance processes and systems in accordance with the provisions of Section 7(1)(a) of the Public Audit Act, 2015 and submit the audit report in compliance with Article 229(7) of the Constitution. My consideration of the internal control would not necessarily disclose all matters in the internal control that might be material weaknesses under the ISSAIs. A material weakness is a condition in which the design or operation of one or more of the internal controls components does not reduce to a relatively low level the risk that misstatements caused by error or fraud in amounts that would be material in relation to the financial statements being audited may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

Because of its inherent limitations, internal controls may not prevent or detect misstatements and instances of non-compliance. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate.

As part of an audit conducted in accordance with ISSAIs, I exercise professional judgement and maintain professional skepticism throughout the audit. I also:

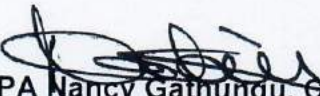
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management.



- Conclude on the appropriateness of the Management's use of the applicable basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Organization's ability to continue to sustain its services. If I conclude that a material uncertainty exists, I am required to draw attention in the auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my audit report. However, future events or conditions may cause the Organization to cease to continue to sustain its services.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information and business activities of the Organization to express an opinion on the financial statements.
- Perform such other procedures as I consider necessary in the circumstances.

I communicate with the Management regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that are identified during the audit.

I also provide Management with a statement that I have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

  
CPA Nancy Gathungu, GBS  
AUDITOR-GENERAL

Nairobi

27 April, 2023



The auditor's report is based on the work performed by the auditor and the results of the audit. The auditor's report is a statement of the auditor's opinion on the financial statements of the entity. The auditor's report is a key document in the audit process and is used by the users of the financial statements to make decisions about the entity.

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CPA  
 AUDITOR GENERAL

27 April 2023

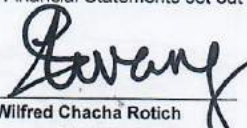


**XI. STATEMENT OF FINANCIAL PERFORMANCE**

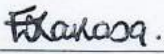
For the year ended 30 June 2022

	Notes	2021-2022 Kshs'000	2020-2021 Kshs'000
<b>Revenue from exchange transactions</b>			
Goods	6	421,091	392,197
Services	7	200,976	186,785
Interest Received	8	11,339	9,598
Other Receipts	9	164,548	229,679
		<b>797,953</b>	<b>818,259</b>
<b>Revenue from non-exchange transactions</b>			
GoK Recurrent	10	4,318,715	4,484,643
GoK Development	11	78,000	50,000
World Bank	12	966,718	1,342,586
Other Grants	13	650,641	743,981
		<b>6,014,074</b>	<b>6,621,210</b>
<b>Total Revenue</b>		<b>6,812,028</b>	<b>7,439,470</b>
<b>Expenses</b>			
Staff Costs	14	4,141,216	4,325,254
Administrative Costs	15	2,047,350	2,160,967
Board Expenses	16	12,583	5,962
Audit Fees	17	3,800	4,312
Depreciation & Amortization expense	18	319,961	352,557
Repairs and Maintenance	19	121,888	99,099
Contracted Services	20	55,200	46,334
Finance Cost	21	10,773	9,892
<b>Total Expenses</b>		<b>6,712,770</b>	<b>7,004,378</b>
<b>Surplus/(Deficit)</b>		<b>99,257</b>	<b>435,091</b>


The Financial Statements set out on pages 1 to 21 were signed on behalf of the Board of Directors by:

  
Mr. Wilfred Chacha Rotich  
Chairman, KALRO BoM

Date: 29/09/2022

  
Ms. Ebby Musimbi  
Ass. Director, Finance & Accounts  
ICPAK Member Number: 10936

Date: 29/09/2022

  
Dr. Eliud K. Kireger, OGW  
Director General


Date: 29/09/2022



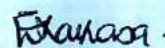
**XII. STATEMENT OF FINANCIAL POSITION**  
As at 30th June 2022

	Notes	2021-2022 Kshs'000	2020-2021 Kshs'000'
<b>Assets</b>			
<b>Current Assets</b>			
Cash and Cash equivalents	22	1,443,703	1,843,714
Receivables from Exchange Transactions	23	491,084	412,057
Receivables from Non-exchange Transactions	24	412,954	418,282
Prepayments	25	90,739	96,516
Inventories	26	226,910	203,247
Deposits	27	2,585	2,585
<b>Total Current Assets</b>		<b>2,667,974</b>	<b>2,976,401</b>
<b>Non-Current Assets</b>			
Property, Plant and Equipment	28	24,123,928	24,310,980
Investments	31	682	510
Intangible Assets	29	49,005	2,300
Biological Assets	30	961,376	859,328
<b>Total Non- Current Assets</b>		<b>25,134,991</b>	<b>25,173,118</b>
<b>Total Assets</b>		<b>27,802,966</b>	<b>28,149,518</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Bank overdraft	32	20	7
Trade & Other Payables	33	170,214	254,389
<b>Total Current Liabilities</b>		<b>170,234</b>	<b>254,396</b>
<b>Non-Current liabilities</b>			
Deferred Income	34	475,249	855,204
<b>Total Non- Current Liabilities</b>		<b>475,249</b>	<b>855,204</b>
<b>Total Liabilities</b>		<b>645,483</b>	<b>1,109,600</b>
<b>Net assets</b>		<b>27,157,483</b>	<b>27,039,918</b>
<b>Capital and Reserves</b>			
General Reserve	35	1,346,887	1,247,629
Capital Fund	36	5,945,219	5,926,912
Revaluation Reserve	38	19,865,377	19,865,377
<b>Total Capital and Reserves</b>		<b>27,157,483</b>	<b>27,039,918</b>


The Financial Statements set out on pages 1 to 21 were signed on behalf of the Board of Directors by:

  
Mr. Wilfred Chacha Rotich  
Chairman, KALRO BoM

Date: 29/09/2022

  
Ms. Ebby Musimbi  
Ass. Director, Finance & Accounts  
ICPAK Member Number: 10936

Date: 29/09/2022

  
Dr. Eliud K. Kireger, OGW  
Director General

Date: 29/09/2022



**XIII STATEMENT OF CHANGES IN NET ASSETS**

For the year ended 30 June 2022

	Notes	Capital Fund	Revaluation Reserve	General Reserve	Totals
		Kshs'000'	Kshs '000'	Kshs'000'	Kshs'000'
<b>At 1st July 2020</b>		<b>5,511,817</b>	<b>19,865,377</b>	<b>812,538</b>	<b>26,189,732</b>
Capital grants received during the period		415,095	-	-	415,095
Surplus/(Deficit) for the period		-	-	435,091	435,091
Prior year adjustments		-	-	-	-
<b>At 30 June 2021</b>		<b>5,926,912</b>	<b>19,865,377</b>	<b>1,247,629</b>	<b>27,039,918</b>
<b>At 1st July 2021</b>		<b>5,926,912</b>	<b>19,865,377</b>	<b>1,247,629</b>	<b>27,039,918</b>
Capital grants received during the period		18,307	-	-	18,307
Surplus/(Deficit) for the period		-	-	99,257	99,257
<b>At 30 June 2022</b>		<b>5,945,219</b>	<b>19,865,377</b>	<b>1,346,887</b>	<b>27,157,483</b>

The notes set out on pages 6 to 21 form an integral part of the financial statements.

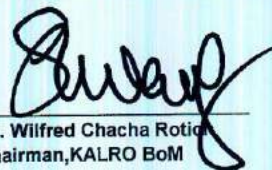


**XIV STATEMENT OF CASHFLOW**


As at 30th June 2022

	Notes	2021-2022 Kshs'000	2020-2021 Kshs'000
<b>Cash Flow from Operating Activities</b>			
Cash generated from/(used in) operations	37	243,471	639,201
<b>Net cash generated from/(used in) operating activities</b>		<b>243,471</b>	<b>639,201</b>
<b>Cash flow from Investing Activities</b>			
Revaluation of Biological assets		(102,048)	(143,143)
Purchase of property, plant & equipment	28	(108,357)	(470,599)
Purchase of intangible assets	29	(71,257)	(2,378)
Proceeds from sale of Assets		-	-
Gain/(Loss) on Valuation of Investments		(172)	1,639
<b>Cash generated from/(used in) investing activities</b>		<b>(281,834)</b>	<b>(614,481)</b>
<b>Cash flow from Financing Activities</b>			
Capital Grant		18,307	415,095
Deferred Income(Capital )		(379,955)	628,280
<b>Cash generated from/(used in)Financing activities</b>		<b>(361,648)</b>	<b>1,043,375</b>
Increase in Cash and Cash Equivalent for the Year		(400,011)	1,068,095
Cash and Cash Equivalent at the Start of the Year		1,843,713	775,619
<b>Cash and Cash Equivalent at the End of the Year</b>	22	<b>1,443,703</b>	<b>1,843,713</b>


The Financial Statements set out on pages 1 to 21 were signed on behalf of the Board of Directors by:

  
Mr. Wilfred Chacha Rotich  
Chairman, KALRO BoM

Date: 29/09/2022

  
Ms. Ebby Musimbi  
Ass. Director, Finance & Accounts  
ICPAK Member Number: 10936

Date: 29/09/2022

  
Dr. Eliud K. Kireger, OGW  
Director General

Date: 29/09/2022



**XV. STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS**

	Original budget	Adjustments	Final Budget	Actual on comparable basis	Performance difference	% of utilisation
	2021-2022	2021-2022	2021-2022	2021-2022	2021-2022	2021-2022
	Kshs'000	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'
	A	B	C=(A+B)	D	E=(C-D)	F=D/C
<b>Revenue from exchange transactions</b>						
Goods	615,000		615,000	421,091	(193,909)	68%
Services	165,000	-	165,000	200,976	35,976	122%
Interest Received	10,000	-	10,000	11,339	1,339	113%
Other Receipts	90,000		90,000	164,548	74,548	183%
<b>Sub total</b>	<b>880,000</b>	<b>-</b>	<b>880,000</b>	<b>797,953</b>		<b>91%</b>
<b>Revenue from non-exchange transactions</b>						
GOK Personal Emoluments	4,315,000		4,315,000	4,318,715	3,715	100%
GOK Development	78,000		78,000	78,000	-	100%
World Bank	1,300,000		1,300,000	966,718	(333,282)	74%
Other Grants	696,000	-	696,000	650,641	(45,359)	93%
<b>Sub total</b>	<b>6,389,000</b>	<b>-</b>	<b>6,389,000</b>	<b>6,014,074</b>		<b>94%</b>
<b>Total Revenue</b>	<b>7,269,000</b>	<b>-</b>	<b>7,269,000</b>	<b>6,812,028</b>		<b>94%</b>
<b>Expenses</b>						
Staff Costs	4,291,799		4,291,799	4,141,216	150,584	96%
Administrative Costs	2,266,939		2,266,939	2,047,350	219,589	90%
Board Expenses	20,000		20,000	12,583	7,417	63%
Audit Fees	3,800		3,800	3,800	-	100%
Depreciation & Amortization	370,121		370,121	319,961	50,160	86%
Repairs and Maintenance	132,565		132,565	121,888	10,678	92%
Contracted Services	95,000		95,000	55,200	39,800	58%
Finance cost	10,775		10,775	10,773	3	100%
Capital Expenditure (Development)	78,000		78,000	78,000	-	100%
<b>Total Expenses</b>	<b>7,269,000</b>	<b>-</b>	<b>7,269,000</b>	<b>6,790,770</b>	<b>478,230</b>	<b>93%</b>
<b>Surplus/(Deficit)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21,257</b>		

The notes set out on pages 6 to 21 form an integral part of the financial statements.

**Budget notes**

1. Change between original and final budget is as a consequence of budget adjustment from Exchequer
2. Revenue received from World Bank against the projection was as a result of Kenya Climate Smart Agricultural Productivity (KCSAP) Project implementation activities funded in the financial period
3. The % decrease in revenue from goods against the budget is attributed to decrease in demand of KALRO products due to the effect of COVID 19
4. The % increase in revenue from services against the budget is attributed to slight increase in demand for services due to the lifting of ban on movement and gathering restrictions as a result of COVID-19.
5. The decrease in revenue from other grants against the budget in realization of the grants from donors is due to low disbursement by the Development Partners as a result of COVID-19
6. Board expenses underutilization against the budget was a result of postponement of Corporate Governance training that were to be conducted to the Board Members
7. Repairs and maintenance decrease was as a result of the delay in the take off of the refurbishing and/or Upgrading of Research Facilities and Infrastructure funded under the Kenya Climate Smart Project
8. Contracted services decrease was as a result of operationalisation of Afiasafe KE01™ production by KALRO



## XVI. NOTES TO THE FINANCIAL STATEMENTS

### 1. General Information

KALRO is established by and derives its authority and accountability from Kenya Agricultural and Livestock Research Act, No 17 of 2013. The organisation is wholly owned by the Government of Kenya and is domiciled in Kenya. The entity's principal activity is to undertake, streamline, coordinate and regulate all aspects of research in agriculture and livestock development, and promote the application of the research findings, technologies and innovations.

### 2. Statement of compliance and basis of preparation – IPSAS 1

The organization's financial statements have been prepared in accordance with the PFM Act, the State Corporations Act, and International Public Sector Accounting Standards (IPSAS). The financial statements are presented in Kenya shillings, which is the functional and reporting currency of the organization and all values are rounded to the nearest thousand (Kshs. 000). The accounting policies have been consistently applied to all the years presented.

The financial statements have been prepared on the basis of historical cost, unless stated otherwise. The cash flow statement is prepared using the direct method. The financial statements are prepared on accrual basis

### 3. Adoption of New and Revised Standards

#### i) New and amended standards and interpretations in issue effective in the year ended 30 June 2022.

IPSASB deferred the application date of standards from 1st January 2022 owing to Covid 19. This was done to provide entities with time to effectively apply the standards. The deferral was set for 1st January 2023.

#### ii) New and amended standards and interpretations in issue but not yet effective in the year ended 30 June 2022

Standard	Impact
IPSAS 41: Financial Instruments	<p><b>Applicable: 1st January 2023:</b></p> <p>The objective of IPSAS 41 is to establish principles for the financial reporting of financial assets and liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. IPSAS 41 provides users of financial statements with more useful information than IPSAS 29, by:</p> <ul style="list-style-type: none"> <li>• Applying a single classification and measurement model for financial assets that considers the characteristics of the asset's cash flows and the objective for which the asset is held;</li> <li>• Applying a single forward-looking expected credit loss model that is applicable to all financial instruments subject to impairment testing; and</li> <li>• Applying an improved hedge accounting model that broadens the hedging arrangements in scope of the guidance. The model develops a strong link between an entity's risk management strategies and the accounting treatment for instruments held as part of the risk management strategy.</li> </ul>



IPSAS 42: Social Benefits	<p><b>Applicable: 1st January 2023</b></p> <p>The objective of this Standard is to improve the relevance, faithful representativeness and comparability of the information that a reporting entity provides in its financial statements about social benefits. The information provided should help users of the financial statements and general purpose financial reports assess:</p> <p>(a) The nature of such social benefits provided by the entity;                  (b) The key features of the operation of those social benefit schemes; and                  (c) The impact of such social benefits provided on the Entity's financial performance, financial position and cash flows.</p>
Amendments to Other IPSAS resulting from IPSAS 41, Financial Instruments	<p><b>Applicable: 1st January 2023:</b></p> <p>a) Amendments to IPSAS 5, to update the guidance related to the components of borrowing costs which were inadvertently omitted when IPSAS 41 was issued.                  b) Amendments to IPSAS 30, regarding illustrative examples on hedging and credit risk which were inadvertently omitted when IPSAS 41 was issued.                  c) Amendments to IPSAS 30, to update the guidance for accounting for financial guarantee contracts which were inadvertently omitted when IPSAS 41 was issued.                  Amendments to IPSAS 33, to update the guidance on classifying financial instruments on initial adoption of accrual basis IPSAS which were inadvertently omitted when IPSAS 41 was issued.</p>
Other improvements to IPSAS	<p><b>Applicable 1st January 2023</b></p> <ul style="list-style-type: none"> <li>•IPSAS 22 Disclosure of Financial Information about the General Government Sector. Amendments to refer to the latest System of National Accounts (SNA 2008).</li> <li>•IPSAS 39: Employee Benefits Now deletes the term composite social security benefits as it is no longer defined in IPSAS.</li> <li>•IPSAS 29: Financial instruments: Recognition and Measurement Standard no longer included in the 2021 IPSAS handbook as it is now superseded by IPSAS 41 which is applicable from 1st January 2023.</li> </ul>
IPSAS 43	<p><b>Applicable 1st January 2025</b></p> <p>The standard sets out the principles for the recognition, measurement, presentation, and disclosure of leases. The objective is to ensure that lessees and lessors provide relevant information in a manner that faithfully represents those transactions. This information gives a basis for users of financial statements to assess the effect that leases have on the financial position, financial performance and cashflows of an Entity.</p> <p>The new standard requires entities to recognise, measure and present information on right of use assets and lease liabilities.</p>
IPSAS 43 IPSAS 44: Non- Current Assets Held for Sale and Discontinued Operations	<p><b>Applicable 1st January 2025</b></p> <p>The Standard requires,                  Assets that meet the criteria to be classified as held for sale to be measured at the lower of carrying amount and fair value less costs to sell and the depreciation of such assets to cease and;                  Assets that meet the criteria to be classified as held for sale to be presented separately in the statement of financial position and the results of discontinued operations to be presented separately in the statement of financial performance.</p>

iii. Early adoption of standards

The entity did not early – adopt any new or amended standards in year 2021/2022



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**4. Summary of significant accounting policies**

**a) Revenue recognition**

**i) Revenue from non-exchange transactions - IPSAS 23**

**Transfers from other government entities**

Revenues from non-exchange transactions with other government entities are measured at fair value and recognized on obtaining control of the asset (cash, goods, services and property) if the transfer is free from conditions and it is probable that the economic benefits or service potential related to the asset will flow to the organization and can be measured reliably.

**ii) Revenue from exchange transactions – IPSAS 9**

**Rendering of services**

The organization recognizes revenue from rendering of services only when it is probable that the economic benefits or service potential associated with the transaction will flow to the organization. When the outcome of the transaction involving the rendering of services cannot be estimated reliably, revenue shall be recognized only to the extent of the expenses recognized that are recoverable.

**Sale of goods**

Revenue from the sale of goods is recognized when the significant risks and rewards of ownership have been transferred to the buyer, usually on delivery of the goods and when the amount of revenue can be measured reliably and it is probable that the economic benefits or service potential associated with the transaction will flow to the organization.

**Interest income**

Interest income is accrued using the effective yield method. The effective yield discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount. The method applies this yield to the principal outstanding to determine interest income each period.

**Rental income**

Rental income arising from operating leases on investment properties is accounted for on a straight-line basis over the lease terms and included in revenue

**b) Budget information – IPSAS 24**

The annual budget is prepared on the accrual basis, that is, all planned costs and income are presented in a single statement to determine the needs of the organization. As a result of the adoption of the accrual basis for budgeting purposes, there are no basis, timing or organization differences that would require reconciliation between the actual comparable amounts and the amounts presented as a separate additional financial statement in the statement of comparison of budget and actual amounts. The period covered by the annual budget is the same as the period covered by the financial statements.

**c) Property, plant and equipment – IPSAS 17**

All property, plant and equipment are stated at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the items. All other repair and maintenance costs are recognized in surplus or deficit as incurred. Where an asset is acquired in a non-exchange transaction for nil or nominal consideration the asset is initially measured at its fairvalue.

Biological assets are measured on initial recognition and at the end of each reporting period at fair value less costs to sell in accordance with IPSAS 27.

Bearer plant are "a living plant that is used in the production or supply of agricultural produce, is expected to bear produce for more than one period has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales. This includes Coffee and Tea plants .

Before maturity, bearer plants are measured at their accumulated cost. After the bearer plants matures, KALRO measures the bearer plants using either the cost model or the revaluation model.



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

Depreciation is calculated to write off the cost or valuation of fixed assets using the straight-line method at the following annual rates

Buildings	2.00%
Bearer Plants	2.00%
Motor vehicles and Motor cycles	25.00%
Tractors	12.50%
Plant and machinery	12.50%
Office equipment	12.50%
Computers & Electronics	33.33%
Furniture & fittings	12.50%
Laboratory equipment	12.50%
Infrastructural Assets	25.00%

Depreciation will be charged in the year of acquisition and not charged in the year of disposal of the asset.

**d) Intangible assets—IPSAS 31**

Intangible assets acquired separately are initially recognized at cost. The cost of intangible assets acquired in a non-exchange transaction is their fair value at the date of the exchange. Following initial recognition, intangible assets are carried at cost less any accumulated amortization and accumulated impairment losses. Internally generated intangible assets, excluding capitalized development costs, are not capitalized and expenditure is reflected in surplus or deficit in the period in which the expenditure is incurred.

The useful life of the intangible assets is assessed as finite and amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period (a period of 3 years) and the amortisation method for an intangible asset with a finite useful life is reviewed at least at the reporting date.

Intangible assets	33.33%
-------------------	--------

**e) Research and development costs**

The organization expenses research costs as incurred. Development costs on an individual project are recognized as intangible assets when the organization can demonstrate:

- The technical feasibility of completing the asset so that the asset will be available for use or sale
- Its intention to complete and its ability to use or sell the asset
- How the asset will generate future economic benefits or service potential
- The availability of resources to complete the asset
- The ability to measure reliably the expenditure during development

Following initial recognition of an asset, the asset is carried at cost less any accumulated amortization and accumulated impairment losses. Amortization of the asset begins when development is complete and the asset is available for use. It is amortized over the period of expected future benefit. During the period of development, the asset is tested for impairment annually with any impairment losses recognized immediately in surplus or deficit.

**f) Inventories – IPSAS 12**

Inventory is measured at cost upon initial recognition. To the extent that inventory was received through non-exchange transactions (for no cost or for a nominal cost), the cost of the inventory is its fair value at the date of acquisition.

After initial recognition, inventory is measured at the lower of cost and net realizable value. However, to the extent that a class of inventory is distributed or deployed at no charge or for a nominal charge, that class of inventory is measured at the lower of cost and current replacement cost.

Net realizable value is the estimated selling price in the ordinary course of operations, less the estimated costs of completion and the estimated costs necessary to make the sale, exchange, or distribution.

Inventories are recognized as an expense when deployed for utilization or consumption in the ordinary course of operations of the organization.

**g) Nature and purpose of reserves**

The organization creates and maintains reserves in terms of specific requirements. organization to state the reserves maintained and appropriate policies adopted.



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**h) Employee benefits – IPSAS 25**

**Retirement benefit plans**

The organization provides retirement benefits for its employees. The retirement scheme is contributory with employee and employer contributing as below on the basis of the Basic Salary. The entity's obligation under the scheme is limited to employee and employer contributions

Employee	Employer
10%	20%

The entity also contributes to the statutory National Social Security Fund (NSSF). The entity's obligation under the scheme is limited to employee and employer contributions.

**i) Cash and cash equivalents**

Cash and cash equivalents comprise cash on hand and cash at bank. Bank account balances include amounts held at various commercial banks at the end of the financial year net of bank overdrafts. In the Statement of Financial Position, bank overdrafts are included as borrowings under current liabilities.

**j) Comparative figures**

Where necessary comparative figures for the previous financial year have been amended or reconfigured to conform to the required changes in presentation.

**k) Foreign currency transactions IPSAS 4.**

Transactions in foreign currencies are initially accounted for at the ruling rate of exchange on the date of the transaction. Trade creditors or debtors denominated in foreign currency are reported at the statement of financial position reporting date by applying the exchange rate on that date. Exchange differences arising from the settlement of creditors, or from the reporting of creditors at rates different from those at which they were initially recorded during the period, are recognized as income or expenses in the period in which they arise

**l) Subsequent events – IPSAS 14**

There have been no events subsequent to the financial year end with a significant impact on the financial statements for the year ended June 30, 2022.

**m) Related Parties – IPSAS 20**

The Organisation regards a related party as a person or an entity with the ability to exert control individually or jointly, or to exercise significant influence over the Organisation, or vice versa. The Government of Kenya is the principal shareholder of the entity, holding 100% of the entity's equity interest. Other related parties include the Parent Ministry (Ministry of Agriculture and Livestock Development) and Board of Management. Members of key management are regarded as related parties and comprise senior managers. No related party contracts or dealings were exchanged during the year except for earnings as employees. Further, the key management do not hold any specific interests. Allowances to members of the Board of Management are as shown (see Note 16), while the three key management emoluments for the year were Kshs 21.538million. This is included in the staff costs.

**n) Taxes – IAS 12**

The Organisation is only liable to income tax payable on interest and dividends received which are payable at source. The organisation is exempt from paying corporation tax.

**o) Leases – IPSAS 13**

The determination of whether an arrangement is, or contains a lease is based on the substance of the arrangement and requires an assessment of whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset.

Leases are classified as finance leases whenever the terms of the lease transfer substantially all risks and rewards of ownership to the Organization as the lessee. All other leases are classified as operating leases. Where the Organization is the lessee, the total payments made under operating leases are charged to the statement of financial performance on a straight line basis over the period of the lease.

**p) Changes in accounting policies and estimates – IPSAS 3**

The Organisation recognizes the effects of changes in accounting policy retrospectively. The effects of changes in accounting policy are applied prospectively if retrospective application is impractical.



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**q) Financial Risk Management Objectives and Policies**

The Board has initiated and facilitated the process that will see the enhancement of risk management. The Board has an integrated risk management strategy. The Board's approach to risk management is based on risk governance structures, risk management policies, risk identification, measurement, monitoring and reporting. The risk management policies and systems are reviewed regularly to ensure that they are in tandem with the micro and macro environment, regulatory guidelines, industry practice, market conditions as well as the services offered. The Board recognizes the critical role the risk management will continue to play in its endeavor to carry out its business in a dynamic environment. The Board is committed to ensure that corporate governance and risk management are deeply entrenched in the Organisation and culture.

**i) Liquidity risk**

Liquidity risk is the risk that the Board will not have sufficient financial resources to meet its obligations when they fall due or will have to do so at excessive costs. This risk can arise from mismatches in the timing of cash flows from revenue and capital/ operational outflows, assets and liabilities according to their maturity profiles and can occur where cash flow streams have been discontinued, etc. Funding risk arises when the necessary liquidity to fund illiquid asset positions cannot be met at expected terms and when required. The objective of the liquidity and funding management is to ensure that all foreseeable operational and capital commitment expenditure can be met under both normal and stressed conditions and the mismatch is controlled in line with allowable risk levels.

The table shows the undiscounted cash flows on the Organisation financial assets and liabilities on the earliest possible maturity date. The liquidity ratio in FY 2021/22 is 13.79(FY 2020/21:10.51)

	Note	2021-2022 Kshs '000	2020-2021 Kshs '000
<b>Financial Assets</b>			
Bank and Cash Balances	22	1,443,683	1,843,707
Receivables	23 & 24	904,038	830,339
<b>Total Financial Assets</b>		<b>2,347,721</b>	<b>2,674,046</b>
<b>Financial Liabilities</b>			
Payables	33	170,214	254,389
<b>Total Financial Liabilities</b>		<b>170,214</b>	<b>254,389</b>
Net Liquidity		<b>2,177,506</b>	<b>2,419,656</b>
Liquidity Ratio		13.79	10.51

**ii) Currency Risk**

Currency risk arises primarily from purchasing and sales of goods and services from/to overseas or indirectly via local supplies. The currency risk is minimal as cash and cash equivalents held with banks are dominated in Kenya Shillings and there are minimal dealings in foreign currency.

**iii) Operational risk**

Operational risk is the risk of direct or indirect loss arising from a wide variety of causes associated with the Organisation's processes, personnel, technology and infrastructure and from external factors other than credit, market and liquidity risks such as legal and regulatory requirements and generally acceptable standards of corporate behavior.

The Organisation seeks to ensure that key operational risks are managed in a timely and effective manner through a framework of policies, procedures and tools to identify, assess, monitor and report such risks. The Organisation's objective is to manage operational risk so as to balance the avoidance of financial losses and damage to the Organisation's reputation with overall cost effectiveness and to avoid control procedures that restrict initiative and creativity.

**iv) Compliance and Regulatory Risk**

Compliance and regulatory risk includes the risk of non-compliance with regulatory requirements. The Organisation has complied with all externally imposed requirements throughout the year.



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**5) Significant judgments and sources of estimation uncertainty – IPSAS 1**

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Although these estimates are based on the directors' knowledge of current events and actions, actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods. The key areas of judgments and sources of uncertainty in estimation are as set out below:

**i) Useful lives of Property, Plant and Equipment**

The Board make estimates in determining the depreciation rates for property and equipment. The rates used are set out in the accounting policy (c) above for property and equipment. The Board reviews the estimated useful lives of plant and equipment at the end of each reporting period. During the financial year, no changes to the useful lives were identified by the Board.

**ii) Contingent Liabilities**

As disclosed in these financial statements, the Board is exposed to various contingent liabilities in the normal course of business. The Board evaluate the status of these exposures on a regular basis to assess the probability of the Board incurring related liabilities. However, provisions are only made in the financial statements where, based on the Board's evaluation, a present obligation has been established.

**iii) Provision for Doubtful Debts**

The organization reviews its receivables portfolio to assess the likelihood of impairment. Provision for impairment of receivables is established when there is an objective evidence that the Board will not be able to collect all amounts due. Where necessary, an estimation of the amounts irrecoverable is made in that year at 5% of the portfolio. Provision for impairment shall be recognized upon approval by the Board of Management.

**iv) Other provisions**

Other provisions are recognized when the Board has legal or constructive obligation as a result of past events, for which it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

6 Goods	2021-2022	2020-2021
	Kshs '000	Kshs '000
Sheep & Goats	3,110	2,042
Pigs	2,341	2,053
Camels	76	-
Cows	26,778	26,183
Poultry	108,386	95,481
Maize	16,483	6,876
Sorghum & Millets	14,053	6,961
Rice	5,004	1,078
Root and Tuber	3,447	3,270
Vegetables	282	167
Herbs	3,824	1
Beans	84,534	54,176
Fruits	1,181	1,154
Bananas	1,969	2,555
Wheat	3,867	3,082
Cassava	417	220
Seeds	48,759	49,416
Seedlings	61,873	56,519
Trees and Plants	505	181
Manure	1,638	865
Firewood	1,417	626
Flowers	124	88
Pyrethrum	15	6
Cotton	110	70
Fodder	43,333	32,279
Beef	76	257



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

Milk	28,675	28,887
Eggs	6,491	2,845
Tomatoes	339	109
Hay	10,452	9,747
Water	3,492	3,039
Other Farm produce	2,238	2,868
Increase/Decrease in Stock	(192,428)	(159,434)
Coffee, Milling Cane and Tea Sales	128,232	158,731
<b>Total</b>	<b>421,091</b>	<b>392,197</b>

**7. Services**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Soil Analysis	16,840	19,522
Other Lab Services	5,082	6,027
Sale of Journals Periodicals	432	931
Hire-Ground/Conference Facilities	76,447	57,139
Royalties	9,513	6,421
Rent	61,628	60,285
Other services	31,034	36,460
<b>Total</b>	<b>200,976</b>	<b>186,785</b>

**8. Interest Received**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Interest Received	11,339	9,598
<b>Total</b>	<b>11,339</b>	<b>9,598</b>

**9. Other Receipts**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Cafeteria Income	48,320	35,940
Guest House Income	29,877	28,872
Bus Income	5,131	5,065
Utilities Income	7,405	6,899
Sale of Tender Documents	-	1
Grazing Fee	12	131
Gain/(Loss) on Foreign exchange	(28,418)	11,267
Gain/(Loss) on Biological assets	102,048	143,143
Gain/(Loss) on Sale of Fixed Assets	0	0
Gain/(Loss) on Valuation of Investments	172	(1,639)
<b>Total</b>	<b>164,548</b>	<b>229,679</b>

**10. GoK Personnel Emoluments**

This represents GoK funds received from the Government for payment of staff costs

	2021-2022 Kshs '000	2020-2021 Kshs '000
Grants-Personnel Emoluments	4,318,715	4,484,643
<b>Total</b>	<b>4,318,715</b>	<b>4,484,643</b>



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**11. GoK Development Funds**

This represents GoK funds received from the Government for development of research activities.

						2021-2022	2020-2021
						Kshs '000	Kshs '000
Development Grant -GoK						78,000	50,000
<b>Sub-Total</b>						<b>78,000</b>	<b>50,000</b>
<b>10 &amp; 11. Transfers from Ministries</b>							
Name of the Entity sending the grant	Amount recognized to Statement of Comprehensive Income	Amount deferred Kshs '000	Amount recognised in capital fund Kshs '000	Total grant income during the year Kshs '000	2021-2022	2020-2021	
	Kshs '000						
Ministry of Agriculture and Livestock Development	4,318,715	-	-	4,318,715	4,318,715	4,484,643	
Ministry of Agriculture and Livestock Development	78,000	-	-	78,000	78,000	50,000	
<b>Total</b>	<b>4,396,715</b>	<b>-</b>	<b>-</b>	<b>4,396,715</b>	<b>4,396,715</b>	<b>4,534,643</b>	

**12. World Bank**

		2021-2022	2020-2021
		Kshs '000	Kshs '000
Development Fund - KCSAP		966,718	1,342,586
<b>Total</b>		<b>966,718</b>	<b>1,342,586</b>

**13. Development Funds - Other Donors**

These represent grants received from various donors for research activities.

		2021-2022	2020-2021
		Kshs '000	Kshs '000
Development Grant - EU		219,796	45,683
Development Grant - USAID		2,346	-
Development Grant - CIP		1,536	1,258
Development Grant - CIAT		3,682	9,798
Development Grant - ICRAF		2,780	1,435
Development Grant - FAO		2,933	7,020
Development Grant - ILRI		26,877	-
Development Grant - ICRISAT		687	1,965
Development Grant - CIMMYT		50,966	47,587
Development Grant - NRF		5,031	8,174
Development Grant - IDRC		16,027	85,657
Development Grant - AGRA		8,260	29,126
Development Grant - KCEP		3,175	1,872
Development Grants -CORNEL UNI		11,074	34,500
Development Grant - Other Grants		295,471	489,904
<b>Total</b>		<b>650,641</b>	<b>743,981</b>

**14. Staff Costs**

		2021-2022	2020-2021
		Kshs '000	Kshs '000
Basic Salary		2,031,961	2,065,344
House Allowance		581,638	624,117
Other Personal Allowance		93,086	109,434



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

Commuter Allowance	152,422	170,230
Transfer Allowance	4,003	2,935
Passage & Leave Expenses	11,042	11,070
Gratuity & Pension Contribution	426,375	443,541
Medical Expenses	278,093	326,628
Contractual Employee	201,132	180,556
Casual Labour	381,463	391,399
<b>Total</b>	<b>4,141,216</b>	<b>4,325,254</b>

**15. Administrative Costs**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Fuels, Oils and Lubricants	78,936	72,784
Vehicle Insurance	25,801	5,900
Road Tax & Licenses	1,104	2,471
Hire of Transport	9,950	7,893
Freight, Clearing & Shipping	451	594
Purchase of Supplies Production	83,920	153,288
Purchase of Drugs	3,984	6,678
Purchase of Sierra & Vaccines	1,602	3,165
Farm Development	23,882	37,303
Purchase of Fungi Insecticide & Sprays	3,253	3,955
Purchase of Farm Input	54,911	44,468
Purchase of Laboratory Stores	27,204	52,330
Research Materials	26,620	25,121
Purchase of Animals	20,069	7,804
Purchase of Dressing & Non Pharmaceutical	90	173
Purchase of Consumables Stores	15,038	16,413
Food and Ration	19,745	18,485
Hire Machinery & Equipment's	1,759	2,812
Purchase of Workshop Tools, Spares & Equipment	4,544	5,454
Farmer Grants (CIGs/CBOs)	138,555	39,301
Purchase of seed	15,520	24,792
Office Stationery	15,402	25,167
Computer Expenses	463	35
Printing and Publishing	6,472	13,947
Advertising and Publicity	5,821	9,358
Library Expenses	134	193
Farmers Training, Field day, Show Expenses	126,646	213,703
Cafeteria Expenses	15,126	23,600
Official Entertainment	6,150	8,029
Conference and Seminars	81,165	42,905
Rent and Rates	613	9,915
Commission and Honoraria	8,191	4,618
Security Expenses	130,018	111,784
Insurance - Property	23,571	17,281
Uniforms and Clothing	2,221	2,786
Subscriptions to Newspapers	600	739
Insurance - GPA & GL	42,539	32,323
Daily Subsistence Allowance	740,472	867,029
External Travels and Per Diem	31,978	4,769
Travel Costs (Air & Bus) Mileage	20,811	20,580
Training	27,338	18,770
Water Expenses	4,445	5,981
Electricity Supplies	97,670	77,774
Gas Expenses	1,980	2,652
Telephone Expenses	17,033	21,301
Postage and Courier Expenses	3,173	3,528



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

Provision for bad debts	4,155	27,365
Internet Connections	40,206	28,009
Membership Fees & Subscription	27,550	9,060
Legal Dues, Arbitration & Compensation	28,468	26,586
<b>Total</b>	<b>2,047,350</b>	<b>2,160,967</b>

**16. Board Expenses**

Board	2021-2022 Kshs '000	2020-2021 Kshs '000
Sitting Allowance	4,711	3,489
Travelling and Accomodation	3,361	1,119
Telephone Allowance	84	84
Mileage Expenses	280	310
Honoraria	960	960
Training	3,187	-
<b>Total</b>	<b>12,583</b>	<b>5,962</b>

**17. Audit Fees**

These are fees incurred by the Institute during external audits.

	2021-2022 Kshs '000	2020-2021 Kshs '000
Audit Fees	3,800	4,312
<b>Total</b>	<b>3,800</b>	<b>4,312</b>

**18. Depreciation & Amortization Expense**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Buildings	135,909	135,919
Plant and Machinery	9,892	9,487
Motor Vehicles	42,120	66,609
Lab & Scientific Equipment	26,840	41,629
Office & Computer Equip.	40,002	28,262
Office Furniture & Fittings	17,053	13,850
Infrastructure (G/hses, fences, streetlighting)	19,227	35,580
Amortization -Bearer Plants	4,304	4,304
Amortization-Software	24,552	16,857
<b>Total</b>	<b>319,961</b>	<b>352,557</b>

**19. Repairs and maintenance**

These refers to repairs and maintenance on the various assets of the organisation

	2021-2022 Kshs '000	2020-2021 Kshs '000
Repairs & Maintenance of Vehicles	38,647	44,142
Repairs & Maintenance of Motor Cycles	753	492
Repair & Maintenance of Buildings & Stations	59,687	34,466
Repair & Maintenance of Water Supplies and Pumps	6,036	3,607
Repair & Maintenance of Office Equipment	2,395	6,792
Repairs & Maintenance Laboratory Equipment	2,424	1,837
Repairs & Maintenance Furniture	356	1,313
Maintenance of Plant and Machinery	10,562	5,827
Maintenance of Roads	267	184
Minor Alteration & Maintenance of Works	761	438
<b>Total</b>	<b>121,888</b>	<b>99,099</b>

**20. Contracted Professional Services**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Contracted Professional Services	55,200	46,334
<b>Total</b>	<b>55,200</b>	<b>46,334</b>

**21 Finance cost**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Bank Charges	10,773	9,892
<b>Total</b>	<b>10,773</b>	<b>9,892</b>



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**22 Cash and cash equivalent**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Bank Balances	1,443,703	1,843,714
Bank overdraft (Note 32)	(20)	(7)
<b>Total</b>	<b>1,443,683</b>	<b>1,843,707</b>

Cash and cash equivalent are held in various banks as per below summary:

Kenya Commercial Bank	1,305,695	1,769,110
NCBA Bank	4,000	10,138
ABSA Bank Kenya	7,387	6,630
National Bank of Kenya	82,407	20,903
Cooperative Bank of Kenya	34,318	24,333
Stanbic Bank Kenya	9,800	11,622
MPESA	92	721
Cash	1	250
<b>Total</b>	<b>1,443,701</b>	<b>1,843,707</b>

**23 Receivables from Exchange Transactions**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Trade Debtors	62,244	65,414
Kenya Seed	19,945	19,945
Prepayments	1,171	1,592
Rent dues	6,861	6,183
Bungoma Union	746	746
Mugama Co-op Union	1,863	1,863
Other Receivables	424,039	337,916
Provision for Doubtful Debts	(25,785)	(21,603)
<b>Total</b>	<b>491,084</b>	<b>412,057</b>

**24 Receivables from Non-exchange Transactions**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Commodity Levy	314,497	314,497
Staff Imprest	90,569	95,422
Staff advances	1,674	2,175
Coffee Board of Kenya	23,445	23,445
KPCU	124,496	124,496
Provision for Doubtful Debts	(141,727)	(141,752)
<b>Total</b>	<b>412,954</b>	<b>418,282</b>

**25 Prepayments**

These are prepayments on insurance covers taken by KALRO with commencement date of 1st October 2021 and expiring on 30th September 2022

	2021-2022 Kshs '000	2020-2021 Kshs '000
Insurance Premium	90,739	96,516
<b>Total</b>	<b>90,739</b>	<b>96,516</b>

**26 Inventories**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Consumables	83,608	78,695
Crop	143,643	124,893
Provision for obsolete stock	(341)	(341)
<b>Total</b>	<b>226,910</b>	<b>203,247</b>

**27 Deposits**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Deposits	2,585	2,585
<b>Total</b>	<b>2,585</b>	<b>2,585</b>



NOTES TO THE FINANCIAL STATEMENTS (Continued)

28. Property, plant and Equipment

	LAND	BEARER PLANTS	BUILDINGS	MOTOR VEHICLES	PLANT & MACHINERY	OFFICE EQUIP.	FURNITURE & FITTINGS	LAB EQUIPMENT	MOTOR CYCLES & BICYCLES	INFRASTRUCTURE (Ghises, fences, streetlighting)	WORK IN PROGRESS	TOTAL
	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'	Kshs'000'
<b>Cost</b>												
As at 1 <sup>st</sup> July 2020	17,808,626	215,195	6,795,458	721,743	266,412	577,898	302,862	894,523	7,748	178,250	(0)	27,768,714
Addition for the period	400,000	-	-	24,501	9,757	19,730	1,831	6,804	247	451	7,478	470,599
Reclassification of assets categories	-	-	-	-	-	-	-	-	-	-	-	-
Disposal for the period	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from WIP	-	-	-	-	-	-	-	-	-	-	-	-
At 30 <sup>th</sup> June 2021	18,208,626	215,195	6,795,458	746,244	276,169	597,628	304,693	901,127	7,995	178,700	7,478	28,239,313
Addition for the period	-	-	581	19,770	25,483	44,266	1,633	4,139	-	11,938	547	108,357
Transfer from WIP	-	-	-	-	-	-	-	-	-	-	-	-
Reclassification of assets categories	-	-	-	-	-	-	-	-	-	-	-	-
Transfer from Biological assets	-	-	-	-	-	-	-	-	-	-	-	-
Disposal for the period	-	-	-	-	-	-	-	-	-	-	-	-
At 30 <sup>th</sup> June 2022	18,208,626	215,195	6,796,040	766,014	301,652	641,894	306,326	805,266	7,995	190,639	8,025	28,347,871
<b>Depreciation</b>												
At 1 <sup>st</sup> July 2020	-	14,196	1,063,378	656,925	218,837	535,814	208,916	702,912	7,809	133,566	-	3,542,152
Charge for the period	-	4,304	135,919	66,809	9,487	28,262	13,850	41,629	62	35,580	-	335,700
Accumulated depreciation on disposal	-	-	-	-	-	-	-	-	-	-	-	-
At 30 <sup>th</sup> June 2021	-	18,488	1,198,897	709,130	247,991	551,279	246,658	798,461	7,809	149,631	-	3,928,333
Charge for the period	-	4,304	135,909	42,120	9,892	40,002	17,053	26,840	62	19,227	-	295,409
Accumulated depreciation on disposal	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation on reclassification	-	-	-	-	-	-	-	-	-	-	-	-
At 30 <sup>th</sup> June 2022	-	22,792	1,334,806	751,250	257,883	591,282	263,711	825,291	7,871	168,858	-	4,223,742
<b>Net book values</b>												
At 30 <sup>th</sup> June 2021	18,208,626	192,403	5,461,234	14,764	43,769	50,613	42,614	79,975	124	21,781	8,025	24,123,928
At 30 <sup>th</sup> June 2022	18,208,626	196,707	5,596,561	37,114	28,179	46,349	58,035	102,676	185	29,070	7,478	24,310,980

Motor vehicles and motorcycles with a gross carrying amount of Ksh. 450,861,000 and Ksh. 6,506,650 respectively, had been fully depreciated during the year ending 30<sup>th</sup> June 2022 and are still in use



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**29 Intangible Assets**

	2021-2022 Kshs '000	2020-2021 Kshs '000
<b>Cost</b>		
At beginning of the year		
Addition	265,154	262,776
<b>At end of the year</b>	<b>71,257</b>	<b>2,378</b>
<b>Amortization</b>	<b>336,410</b>	<b>265,154</b>
At beginning of the year		
Amortization	262,854	245,997
At end of the year	24,552	16,857
<b>Net Book Value</b>	<b>287,405</b>	<b>262,854</b>
	<b>49,005</b>	<b>2,300</b>

**30 Biological Assets**

	2021-2022 Kshs '000	2020-2021 Kshs '000
As at 1st July	859,328	716,185
Gain in Value during the year	102,048	143,143
<b>As at 30th June</b>	<b>961,376</b>	<b>859,328</b>
<b>Total</b>	<b>961,376</b>	<b>859,328</b>

**31 Investments**

**Quoted Investments:**

1,672 B A T Kenya PLC shares-

682                      510

**Other Investments:**

KPCU Unsecured Loan Stock

KPCU Redeemable Ordinary shares

Fairvalue is Kshs 0 (2020/2021 Kshs 0)

**Total**

**682                      510**

The Kenya Planters Co-operative Union unsecured loan stock and redeemable ordinary shares are unquoted investments classified as available for sale and measured at cost. The fair value of KPCU is estimated at zero as the Government has liquidated KPCU.

For investments in equity share listed under note 31 above, the equity investments is under the following categories:

Name of entity where investment is held	No of shares			Nominal value of shares Kshs '000	Fair value of shares	Fair value of shares
	Direct shareholding	Indirect shareholding	Effective shareholding		Current year	Prior year
					%	%
British American Tobacco Kenya PLC	0.0000167	-	0.0000167	17	682	510
	<b>0.0000167</b>	<b>-</b>	<b>0.0000167</b>	<b>17</b>	<b>682</b>	<b>510</b>

The fair value of BAT shares is determined by reference to published price quotation in the active market (NSE). On 30th June 2022, the shares traded at Kshs. 407.75 (2020/2021:Kshs.305) per share.

**32 Bank Overdraft**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Bank overdraft	20	7
<b>Total</b>	<b>20</b>	<b>7</b>



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**33 Trade and Other Payables**

	2021-2022	2020-2021
	Kshs '000	Kshs '000
Trade Creditors	116,950	131,888
Statutory Deductions	26,294	45,242
Other Creditors	26,166	76,446
Rent Deposits	804	814
<b>Total</b>	<b>170,214</b>	<b>254,389</b>

**34 Deferred income**

Grants received from donors for specific projects are classified as non-current liabilities. They are carried at amortized cost of which amortization is recorded as other grants in proportion to expenditure incurred on the project over the life of the project.

Description	2021-2022	2020-2021
	Kshs '000	Kshs '000
National Government	-	-
International funders	475,249	855,204
Prior Year Adjustments-International funders	-	-
Public contributions and donations	-	-
<b>Total deferred income</b>	<b>475,249</b>	<b>855,204</b>

The deferred income movement is as follows:

	National government	International funders	Public contributions and donations	Total	Total
	Kshs '000	Kshs '000	Kshs '000	Kshs '000	Kshs '000
Balance brought forward	0	181,243	673,962	855,204	226,924
Prior year adjustment*				-	-
Additions		20,366	275,642	296,009	673,962
Transfers to Capital fund				-	-
Transfers to income statement		(2,003)	(673,962)	(675,964)	(44,649)
Other transfers				-	(1,032)
<b>Balance carried forward</b>	-	189,607	275,642	475,249	855,204

**35 General reserve**

	2021-2022	2020-2021
	Kshs '000	Kshs '000
Balance Brought Forward as at 1 July	1,247,629	812,538
Surplus/(Deficit) for the Year	99,257	435,091
<b>Balance Carried Forward as at 30 June</b>	<b>1,346,887</b>	<b>1,247,629</b>



**NOTES TO THE FINANCIAL STATEMENTS (Continued)**

**36 Capital fund**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Capital Funds Brought Forward as at 1st July	5,926,912	5,511,817
Capital Funds received during the year	18,307	415,095
<b>Balance Carried Forward as at 30th June</b>	<b>5,945,219</b>	<b>5,926,912</b>

**37 Reconciliation of operating profit/(loss) to cash generated from/(used in) operations**

	2021-2022 Kshs '000	2020-2021 Kshs '000
<b>Cash Flow from Operating Activities</b>		
Surplus/(Deficit)	99,257	435,091
<b>Adjustment for;</b>		
Depreciation and Amortisation	319,961	352,557
<b>Operating profit/(loss) before working capital changes</b>	<b>419,218</b>	<b>787,649</b>
<b>Working Capital adjustments</b>		
Decrease/(Increase) in Inventories	(23,663)	107,018
Decrease/(Increase) in Receivables-Exchange	(79,027)	(167,978)
Decrease/(Increase) in Receivables-Non-Exchange	5,328	(11,735)
Decrease/(Increase) in Prepayments	5,777	(76,586)
Increase/(Decrease) in Current liabilities	(84,162)	832
<b>Net changes in Working Capital</b>	<b>(175,747)</b>	<b>(148,448)</b>
<b>Cash generated from/(used in) operations</b>	<b>243,471</b>	<b>639,201</b>

**38 Revaluation reserve**

	2021-2022 Kshs '000	2020-2021 Kshs '000
Balance Brought Forward as a 1st July	19,865,377	19,865,377
<b>Balance Carried Forward as at 30th June</b>	<b>19,865,377</b>	<b>19,865,377</b>

**39 Provisions for contingent liabilities**

(i) During the financial year under review, liability relating to actual deficit as per the report on actuarial valuation of the Kenya Agricultural and Livestock Research Organization Staff retirement benefits Scheme indicated a valuation figure of Kshs.274.653million as at 31st December 2020. It is worth noting that this figure keep on changing every year and could not be disclosed under trade payables as it would materially affect the working capital of the Institute.

**40 Events after the reporting period**

There were no material adjusting and non- adjusting events after the reporting period.

**41 Ultimate and holding entity**

KALRO is a Semi- Autonomous Government Agency under the Ministry of Agriculture and Livestock Development. Its ultimate parent is the Government of Kenya.

**42 Currency**

The financial statements are presented in Kenya Shillings (Kshs).



### APPENDIX I. PROGRESS ON FOLLOW UP OF AUDITOR RECOMMENDATIONS

The following is the summary of issues raised by the external auditor, and management comments that were provided to the auditor. We have nominated focal persons to resolve the various issues as shown below with the associated time frame within which we expect the issues to be resolved.

Reference No. on the external audit Report	Issue / Observations from Auditor	Management comments	Focal Point person to resolve the issue	Status: (Resolved / Not Resolved)	Timeframe:(Put a date when you expect the issue to be resolved)
1.1	Cash and cash equivalents	Matter under investigation by the EACC and National Police Service. Long outstanding unrepresented cheques matter resolved	DG	Not Resolved	Continuous
1.2	Dormant Account	KALRO obtained National Treasury Approval for closure of all dormant accounts	DG	Resolved	Resolved
2	Receivables from exchange Transactions	To seek authority for write off.	H-Finance	Partially Resolved	Dec-22
3	Receivables from non-exchange Transactions	To seek authority for write off.	H-Finance	Partially Resolved	Dec-22
4	Property Plant & Equipment without Title Deeds	Follow up on acquisition of ownership documents ongoing	H-Finance	Partially Resolved	Continuous
5	Unsupported trade and other payables balance	Details schedules detailing the make up to be provided	H-Finance	Resolved	Dec-22
6	Idle assets due to lack of funds	National Treasury engagement through the Parent Ministry for funding of the completion of Tea Research Factory through the Medium Term Sector Framework process continues	H-Finance	Partly Resolved	Continuous
7	Non operationalisation of ERP System	Continuous capacity building and retooling the staff is being conducted	H-Finance	Partly Resolved	Continuous
8	Non operationalisation of Agricultural Research Fund	KALRO undertook the development of the regulations for approval by the Ministry before being Gazetted	H-Finance	Partly Resolved	Continuous



Reference No. on the external audit Report	Issue / Observations from Auditor	Management comments	Focal Point person to resolve the issue	Status: (Resolved / Not Resolved)	Timeframe:(Put a date when you expect the issue to be resolved)
9	Anomalies in KALRO Act, 2013	The professional opinion from the Registrar of Companies is still being followed up	H-Legal	Not Resolved	Continuous
10	Ageing workforce and inadequate staffing	Obtained Board of Management resolution/approval to seek concurrence from the Parent Ministry to commence steady staff replacement	H-Human Resources & Administration	Not Resolved	Dec-22

  
Mr. Wilfred Chacha Rotich  
Chairman, KALRO Bom

Date: 29/09/2022

  
Dr. Elbert K. Kireger, OGW  
Director General

Date: 29/09/2022



## APPENDIX II: PROJECTS IMPLEMENTED BY KALRO

### Projects

Major projects implemented by KALRO and funded by development partners

Project title	Project Number	Donor	Period/ duration	Donor commitment (Kshs'000')	Separate donor reporting required as per the donor agreement (Yes/No)	Consolidated in these financial statements(Yes/No)
1 Kenya Climate-Smart Agriculture Project (KCSAP)	Project I.D. P154784	World Bank	60months	3,866,786	YES	YES
2 AGRIF- Climate Smart Agricultural Productivity Project (CS-APP)	FED/2018/398-876	EU	60months	567,780	YES	YES

### Status of Projects completion

Project	Total project Cost <sup>1</sup> (Kshs'000')	Total expended to date (Kshs'000')	Completion % to date	Budget (Kshs'000')	Actual (Kshs'000')	Sources of funds
1 Kenya Climate-Smart Agriculture Project (KCSAP)	3,866,786	1,046,718	27%	1,200,000	966,718	WORLD BANK
2 AGRIF- Climate Smart Agricultural Productivity Project (CS-APP)	738,115	229,531	31%	250,000	219,796	EU

1. The project total cost is the total financing for both the Donor and counterpart(Gok)



**APPENDIX III: INTER-ENTITY TRANSFERS (Ksh'000')**

ENTITY NAME:		KALRO		
<b>Break down of transfers from the State Department for Agricultural Research and State Department for Livestock</b>				
<b>FY 2021/22</b>				
a. Recurrent Grants				
		Bank Statement Date	Amount (Kshs'000')	FY to which the amounts relate
		Aug-21	1,078,750	2021/22
		Nov-21	1,078,750	2021/22
		Feb-22	359,583	2021/22
		Feb-22	359,583	2021/22
		Mar-22	359,583	2021/22
		May-22	359,583	2021/22
		Jun-22	359,583	2021/22
		Jun-22	359,583	2021/22
		Jun-22	3,715	2021/22
		<b>Total</b>	<b>4,318,715</b>	
b. Development Grants				
		Aug-21	2,500	2021/22
		Aug-21	7,500	2021/22
		Aug-21	15,000	2021/22
		Aug-21	11,500	2021/22
		Aug-21	2,500	2021/22
		Apr-22	15,000	2021/22
		Apr-22	11,500	2021/22
		Apr-22	7,500	2021/22
		Apr-22	2,500	2021/22
		May-22	2,500	2021/22
		<b>Total</b>	<b>78,000</b>	
c. Grants from EU				
		Mar-22	125,000	2021/22
		Apr-22	116,340	2021/22
			<b>241,340</b>	
		<b>Total</b>	<b>4,638,055</b>	

The above amounts have been communicated to and reconciled with the Parent Ministry



**APPENDIX IV: RECORDING OF TRANSFERS FROM OTHER GOVERNMENT ENTITIES (Ksh'000')**

Name of the MDA Transferring the funds	Date received as per bank statement	Nature	Total Amount	Statement of Financial Performance	Where Recorded/recognized			Total Transfers during the Year
					Capital Fund	Deferred Income	Receivables	
Ministry of Agriculture and Livestock Development	Appendix III	Recurrent	4,318,715	4,318,715	-	-	-	4,318,715
	Appendix III	Development	78,000	78,000	-	-	-	78,000
	Appendix III	Grants	241,340	220,974	-	20,366	-	241,340
Ministry of Education-National Research Fund(NRF)	Jul-21	Research Funds	2,697	2,697	-	-	-	2,697
	Jun-22	Research Funds	2,334	2,334	-	-	-	2,334
	Aug-21	Royalties	4,750	4,750	-	-	-	4,750
	Aug-21	Royalties	2,350	2,350	-	-	-	2,350
Kenya Seed Company	Sep-21	Other Grants	300	300	-	-	-	300
	Jan-22	Research Funds	120,000	120,000	-	-	-	120,000
Kenya Climate Smart Agriculture Project (KCSAP)	Jul-21	Research Funds	-	673,962	-	(673,962)	-	-
	Apr-22	Research Funds	90,874	90,874	-	-	-	90,874
	Jun-22	Research Funds	357,525	81,883	-	275,642	-	357,525
<b>Total</b>			<b>5,218,885</b>	<b>5,596,838</b>	<b>-</b>	<b>(377,953)</b>	<b>-</b>	<b>5,218,885</b>