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REPUBLIC OF KENYA



THE NATIONAL ASSEMBLY


TWELFTH PARLIAMENT - THIRD SESSION, 2019

REPORT OF THE DEPARTMENTAL COMMITTEE ON AGRICULTURE AND LIVESTOCK ON THE INQUIRY INTO CHALLENGES OF THE COFFEE RESEARCH INSTITUTE

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## **LIST OF ABBREVIATIONS AND ACROYNMS**

<b>CBD</b>	-	Coffee Berry Disease
<b>CEO</b>	-	Chief Executive Officer
<b>CGIAR</b>	-	Consortium of International Agricultural Research
<b>CRF</b>	-	Coffee Research Foundation
<b>CRI</b>	-	Coffee Research Institute
<b>EU</b>	-	European Union
<b>GOK</b>	-	Government of Kenya
<b>KALRO</b>	-	Kenya Agricultural & Livestock Research Organization
<b>KARI</b>	-	Kenya Agricultural Research Institute
<b>KCPA</b>	-	Kenya Coffee Producers Association
<b>KESREF</b>	-	Kenya Sugar Research Foundation
<b>PS</b>	-	Principal Secretary
<b>R&amp;D</b>	-	Research and Development
<b>SDG</b>	-	Sustainable development goal
<b>TRF</b>	-	Tea Research Foundation
<b>UIS</b>	-	UNESCO Institute for Statistics

## **CHAIRPERSON'S FOREWORD**

On 15th October, 2019 Hon. (Dr.) Eseli Simiyu, CBS rose on a matter of national importance regarding the Coffee industry and specifically the Coffee Research Institute. He stated that, he had paid a visit to Coffee Research Institute in Ruiru and was disappointed to find out that, the coffee farm faced challenges including coffee berry disease; absentee employees; delayed employee salaries; lack of farm inputs including pesticides; lack of planting seedlings; lack of funding; ghost coffee estates without ongoing operations; and that the institution was in a deprived state.

Pursuant to Standing Order 218(2), the Speaker of the National Assembly directed the Departmental Committee on Agriculture and Livestock to extract statement from Hon. Eseli and undertake an inquiry into the Coffee Research Institute to investigate challenges the Institute was facing and report to the House.

On 17<sup>th</sup> October 2019 the Departmental Committee on Agriculture and Livestock resolved as directed by the Speaker to urgently investigate on the concerns raised by Hon Dr Eseli Simiyu.

The Committee further resolved to consider the matter under the following terms of reference:

- i. Examine and inquire on the mandate, management, activities and operations of the Coffee Research Institute;
- ii. Evaluate the progressive performance of the Institute from inception to date;
- iii. Investigate what was ailing the Coffee Research Institute;
- iv. Evaluate support accorded to the Institute by: Ministry of Agriculture, Livestock and Fisheries; Agriculture and Food Authority; Cherry Advance Revolving Funds; Commodities Fund and Coffee Revitalization Programme; and
- v. Report on possible solutions of addressing the existing challenges.

The Committee undertook an inspection visit to Coffee Research Institute in Ruiru on Wednesday, 23<sup>rd</sup> October, 2019 in accordance with its mandate as stipulated in the National Assembly Standing Orders 216. Further, on Monday 28<sup>th</sup> October, 2019 the Committee held extensive deliberations with officials from CRI headed by Dr Gichuru, representatives from Kenya Coffee Producers Association (KAPA). Further, on Tuesday 29<sup>th</sup> October, 2019 the Committee held a meeting with officials from the Ministry of Agriculture, Livestock and Fisheries represented by the Principal Secretary, State Department of Crop Development and Agricultural Research Prof. Hamadi Iddi Boga.

The Committee also reviewed various legislation and report including: the Agriculture and Food Authority Act, 2013; Crops Act, 2013 (No. 16 of 2013); Kenya Agricultural and Livestock Research Act, 2013 (No. 17 of 2013); Report of the National Task Force on Coffee Sub-Sector Reforms; and the Crops (Coffee) (General) Regulations, 2019.

The Committee observed that:

- (a) From the information provided by the CRI, CRI is mandated to provide timely advisory services through field visits, agricultural shows, radio programs, use of demonstrations plots, publications, use of modern technology such as social media, and provision of quarterly weather bulletins and disease and insect pest management protocols but these functions had been scaled down.
- (b) The CRI's 50% funding came from the Coffee Research Levy at 2% of gross coffee proceeds; however, the levy was abolished in 2016.
- (c) There had been salary delays at CRI on two occasions— first, during the reorganization of the CRI in in compliance with the Executive Order 1 of 2016 and secondly in financial year 2018/19 where the allocation given to KALRO did not factor in the approved harmonised salaries that had been effected and funded by the Exchequer with effect from January 2018— however, these had since been resolved and that the current payments by KALRO were up to date.
- (d) The last variety of coffee was released by CRI in the year 2010 and since then there has been no new variety.
- (e) The laboratory equipment in CRI are obsolete.
- (f) The CRI lacks modern irrigation infrastructure for coffee nurseries.
- (g) The CRI had seventeen scientists against an establishment of thirty scientists. The total workforce at the institute is 223 employees and two thirds of the workforce is above age fifty five.
- (h) The Auditor General regularly conducts financial audit of the KALRO; however, scientific audit on technologies and processes within the research institutes had never been conducted.
- (i) CRI produces 100,000 seedlings of “Ruiru II” seedlings per year whereas the demand is 1.5 million seedlings per year.
- (j) The National Task Force on Coffee Sub-Sector Reforms reviewed the entire coffee value chain and identified areas requiring interventions and made recommendations to address the challenges in CRI.

- (k) Since 2014, the number of staff in KALRO had been diminishing owing to varied reasons, which range from retirement, death, resignation among others.
- (l) From KALRO's age analysis, most research staff are evenly spread in bracket of 51-55 and 61-65 years of age categories accounting for approximately 74% of existing research scientists close to retirement.
- (m) Although Kenya has strong policies in research and has established required institutions, financing and research capacity management remain a major handicap at all levels.

The Committee recommends that:

- (a) The National Treasury allocates funds for implementation of recommendations by the National Task Force on Coffee Sub-Sector Reforms on funding CRI to expand production of coffee seed and planting material, and cooperatives to establish and distribute coffee planting mainly for the new varieties, Ruiru 11 and Batian; creation of a financial Kitty to support research to be nested in CRI; and financial & technical support amounting to KSh. 350 Million to State Department of Cooperatives, Coffee Research Institute, Nairobi Coffee Exchange, and Coffee Directorate.
- (b) The National Treasury introduces a coffee research levy at not more than 1% of the gross coffee proceeds to support coffee research and extension services.
- (c) Financing of agricultural research should be prioritized by the Government and other reliable sources of financing for research on coffee should be identified and implemented.
- (d) KALRO conducts a scientific audit on efficiency, effectiveness and economy on technologies and processes within the research institutes.
- (e) CRI works closely with farmers in coffee producing regions for adoption of innovations in research and provision of timely advisory services.

Finally, I take this opportunity to thank the Members of the Committee for their input, valuable contributions and time during the deliberations with various stakeholders and visit to Coffee Research Institute. In addition, the Committee appreciates the Offices of the Speaker and of the Clerk of the National Assembly for the logistical support accorded to it during the exercise.

On behalf of the Departmental Committee on Agriculture and Livestock and pursuant to the provisions of Standing Order 216, it is now my singular duty and privilege to present to the House, this Report of the Departmental Committee on Agriculture and Livestock on Investigations to Challenges Affecting Proper Functioning of Coffee Research Institute.

A handwritten signature in blue ink, appearing to read 'Emmanuel Wangwe', with a large, sweeping flourish extending to the left.

**HON. EMMANUEL WANGWE, MP.**

**VICE – CHAIRPERSON**

**DEPARTMENTAL COMMITTEE ON AGRICULTURE AND LIVESTOCK**

## **1.0 PREFACE**

### **1.1 Establishment and Mandate of the Committee**

- 1) The Departmental Committee on Agriculture and Livestock is one of the Fifteen Departmental Committees of the National Assembly established by Standing Order 216 and mandated to: -
  - (a) investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations and estimates of the assigned Ministries and departments;
  - (b) study the programme and policy objectives of Ministries and departments and the effectiveness of the implementation;
  - (c) study and review all legislation referred to it;
  - (d) study, assess and analyse the relative success of the Ministries and departments as measured by the results obtained as compared with their stated objectives;
  - (e) investigate and inquire into all matters relating to the assigned Ministries and departments as they may deem necessary and as may be referred to them by the House;
  - (f) vet and report on all appointments where the Constitution or any law requires the National Assembly to approve, except those under Standing Order 204 (*Committee on Appointments*); and
  - (g) make reports and recommendations to the House as often as possible, including recommendation of proposed legislation
  
- 2) The subject matter of the Committee is stated in the Second Schedule of the National Assembly Standing Orders No. 216 (f) as follows: Agriculture, Livestock, Irrigation, Fisheries, Development, Production and Marketing. In discharge of its mandate, the Committee oversees the following.

### **1.2 Oversight**

- 3) In executing its mandate, the Committee oversees the following state Departments, namely: The State Department for Crop Development and Agricultural Research, State Department for Livestock, State Department for Fisheries, Aquaculture and the Blue Economy and State Department for Irrigation.



### 1.3 Committee Membership

- 4) The Committee on Agriculture and Livestock was constituted by the House in December, 2017 and comprises of the following Members:-

Hon. Adan Haji Ali, MP. (**Chairperson**)

Mandera South Constituency – Jubilee Party

Hon Emmanuel Wangwe, MP. (**Vice-Chairperson**)

Navakholo Constituency – Jubilee Party

Hon. Maison Leshoomo, MP.

Samburu County – Jubilee Party

Hon. Ferdinard Wanyonyi, MP.

Kwanza Constituency – Ford Kenya

Hon. Florence Mutua, MP.

Busia County – Orange Democratic Movement

Hon. Simba Arati, MP.

Dagoretti Constituency – Orange Democratic Movement

Hon. Francis Munyua Waititu, MP.

Juja Constituency – Jubilee Party

Hon. Silas Kipkoech Tiren, MP.

Moiben Constituency – Jubilee Party

Hon. Yegon Brighton Leonard, MP.

Konoin Constituency – Jubilee Party

Hon. Gabriel Kago Mukuha, MP.

Githunguri Constituency – Jubilee Party

Hon. John Paul Mwirigi, MP.

Igembe South – **Independent Member**

Hon. Dr. John Kanyuithia Mutunga, MP.

Tigania West Constituency – **Jubilee Party**

Hon. Adan Haji Yussuf, MP.

Mandera West Constituency – **Economic Freedom Party**

Hon. Janet Jepkemboi Sitienei, MP.

Turbo Constituency – **Independent Party**

Hon. Dr. Daniel Kamuren Tuitoek, MP.

Mogotio Constituency – **Jubilee Party**

Hon. Fred Ouda, MP.

Kisumu Central Constituency – **Orange Democratic Movement**

Hon. Joyce Kamene, MP.

Machakos County – **Wiper Democratic Party**

Hon. Justus Makokha Murunga, MP.

Matungu Constituency - **Amani National Congress**

Hon. Silvanus Osoro Onyiego, MP.

South Mungirango Constituency – **Kenya National Congress**

#### **1.4 Committee Secretariat**

Mr. Ahmad Kadhi

**First Clerk Assistant – Head of Secretariat**

Mr. Nicodemus Maluki

**Clerk Assistant**

Mr. Alex Mutuku

**Sergeant At Arms**

Mr. Salem Lorot

**Legal Counsel**

Ms. Faith Makena

**Sergeant At Arms**

Mr. John Ngugi

**Audio Officer**

Mr. Robert Ngetich

**Fiscal Analyst**

Mr. Eric Kariuki

**Research Officer**

Ms. Deborah Ghati

**Media Relations Officer**

## 2.0 BACKGROUND INFORMATION

- 5) Coffee was first planted in Kenya at Bura in Taita Hills in 1893 and later grown under irrigation at Kibwezi in 1900, and at Kikuyu, near Nairobi, in 1904. In 1923, the colonial government allowed controlled planting of coffee outside European-settled areas, particularly in Kisii and Meru.<sup>1</sup> Kenya coffee is produced under two systems, comprising smallholder farmers affiliated to co-operative societies and coffee estates, which are individually, managed coffee plantations. Coffee is grown by an estimated 700,000 smallholder farmers, clustered under 500 cooperative societies, and a total of about 4,000 coffee estates. The coffee sub-sector is estimated to support five million people through forward and backward linkages.<sup>2</sup>
- 6) The production of coffee during Kenya's independence in 1963 was 43,778 Metric Tones (MT) and it substantially increased to a high of 128,926 MT in year 1987/1988. However, following the collapse of International Coffee Agreement in 1989, production of coffee went into a steady decline due to various challenges, production presently is 40,000 MT.<sup>3</sup>

**Table 1: Production, Earnings and Area of coffee 2014-2018**

Year	Production (000 tonnes)	Earnings (Billions )	Area (000 Ha )
2018	41.4	14.83	236.2
2017	38.7	16.03	232.7
2016	46.1	16.19	218.5
2015	42.0	12.07	209.4
2014	49.5	16.6	203

Source: Economic survey 2019

- 7) The reduction in coffee production is demonstrated in the decline of export earnings from US\$500 million in the 1990s to less than US\$ 150 million in 2018. This is attributable to

<sup>1</sup> <http://www.ico.org/documents/cy2018-19/icc-124-7e-profile-kenya.pdf>

<sup>2</sup> Report of the National Task Force on Coffee Sub-Sector Reforms 2016

<sup>3</sup> Report of the National Task Force on Coffee Sub-Sector Reforms 2016

**low productivity of 2 Kgs per coffee tree** against a potential of 30 Kgs per tree on average, uprooting of coffee trees, high cost of inputs especially fertilizer and pesticides, limited credit access and poor institutional governance.<sup>4</sup> Despite the decline in production and revenues the coffee sub-sector is still vital in foreign exchange earnings and is ranked as Kenya's fourth most important export, after horticulture, tourism and tea.

- 8) **Sustainable development goal (SDG) 9.5** calls upon Countries to “Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.”<sup>5</sup>
- 9) According to the latest statistics published in 2019 by the UNESCO Institute for Statistics (UIS) Israel and South Korea are the world's leading spenders on research and development (R&D) as a percentage of gross domestic product (GDP) both spending **4.6% of GDP** followed by Switzerland (3.4%), Sweden (3.3%) and Japan (3.2%). However, on a dollar basis, the U.S. leads, having spent \$543 billion in 2017 China (\$496B), Japan (\$176B), Germany (\$127B) and the Republic of Korea (\$90B).<sup>6</sup>
- 10) Various Regions have been setting their own spending targets. The European Union (EU) target is to raise overall R&D investment **to 3% of GDP by 2020**. Four EU countries have already reached this target: Sweden (3.3%), Austria (3.2%), Denmark (3.1%) and Germany (3.0%)<sup>7</sup> The African Union **has set a target of 1% of GDP invested on R&D**, but UIS data shows that only **three sub-Saharan African** countries are **close** to this target: South Africa, **Kenya** and Senegal (around 0.8% in all three countries). In Latin America and the Caribbean, Brazil reported the highest level of R&D investment at (1.3%) of GDP.
- 11) Due to the economic significance of coffee subsector on 15<sup>th</sup> October, 2019 Hon. (Dr.) Eseli Simiyu rose on a matter of **national importance regarding the Coffee industry and specifically the Coffee Research Institute**. He stated that he had paid a visit to Coffee research institute in Ruiru and was disappointed to find out that: - the coffee farm had been

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<sup>4</sup> Report of the National Task Force on Coffee Sub-Sector Reforms 2016

<sup>5</sup> <http://uis.unesco.org/en/news/new-uis-data-sdg-9-5-research-and-development>

<sup>6</sup> <http://uis.unesco.org/en/news/new-uis-data-sdg-9-5-research-and-development>

<sup>7</sup> <http://uis.unesco.org/en/news/new-uis-data-sdg-9-5-research-and-development>

extremely affected by coffee berry disease; absentee employees; delayed employee salaries; lack of farm inputs including pesticides; lack of planting seedlings; lack of funding; ghost coffee estates without ongoing operations; and the institution was in a deprived state.

## **2.1 Committal to the Departmental Committee on Agriculture and Livestock**

12) On 15<sup>th</sup> October, pursuant to Standing Order 218(2), the Speaker of the National Assembly directed the Departmental Committee on Agriculture and Livestock to extract the statement from Hon. David Eseli, MP on the Coffee Research Institute, to inquire into the matter and report to the House.

13) On 17<sup>th</sup> October 2019 the Departmental Committee on Agriculture and Livestock resolved as directed by the Speaker to urgently investigate on the concerns raised by Hon Dr Eseli Simiyu, MP. The Committee set out the aforementioned terms of reference and mapped out key stakeholders including: Ministry of Agriculture, livestock and fisheries; Kenya Agricultural & Livestock Research Organization; Coffee Research Institute; and Kenya Coffee producers association.

14) The Committee further identified legislation for consideration ; the Agriculture and Food Authority Act, 2013; Crops Act, 2013 (No. 16 of 2013); Kenya Agricultural and Livestock Research Act, 2013 (No. 17 of 2013); Report of the National Task Force on Coffee Sub-Sector Reforms; and the Crops (Coffee) (General) Regulations, 2019.

## **2.2 Mandate, Management, Activities and Operations of the Coffee Research Institute**

15) Coffee research is undertaken by the Coffee Research Institute (CRI) of the Kenya Agriculture Research and Livestock Organization (KARLO). Coffee research in Kenya commenced in 1908. In 1944, the colonial government acquired Jacaranda farm at Ruiru and established the Coffee Research Station. Laboratories were constructed and completed

in 1949 funded by the Government. The Coffee Research Foundation (CRF) was established in 1964 under the Company's Act (Cap 486).<sup>8</sup>

16) On 1st July 2014, four (4) State Corporations namely; Kenya Agricultural Research Institute (KARI), Tea Research Foundation (TRF), **Coffee Research Foundation (CRF)** and Kenya Sugar Research Foundation (KESREF) were effectively dissolved and merged to form Kenya Agricultural and Livestock Research Organization (KALRO). CRF was consequently transformed into **Coffee Research Institute (CRI)** as one of the institutes under KALRO.<sup>9</sup>

17) The Mandate of the (CRI) is to conduct research in all areas of production, processing and marketing. In addition the institute is expected to provide routine services to the coffee industry such as:

- i. Soil and leaf analysis- to give farmers advice on best fertilizer to use, the rates and time of application
- ii. Production of certified seeds for varieties such as SL28, SL34 and K7, disease resistant varieties- Ruiru-11 seeds and Batian.
- iii. Raising coffee seedlings-The Institute supplies seedlings to farmers on a first come first served basis.
- iv. Chemical analysis and evaluation- testing and evaluation of newly released chemicals for use in coffee such as pesticides, fungicides, herbicides, fertilizers to determine their suitability and make recommendations to growers.
- v. Advisory services to farmers through - Publications, field days, field visits, open days, agricultural shows, radio programs and use of demonstration plots. Quarterly weather bulletins and disease and insect pest management protocols.
- vi. Residential training at the Kenya Coffee College- Short courses on coffee production, processing and marketing to farm, Factory and Nursery Managers, Coffee Extension officers and Ordinary farmers are offered. The college is also an ideal venue for seminars and workshops and has excellent catering facilities

18) In order to discharge its mandate, the Institute had established research stations across the country. The substations are located at Mariene (Meru), Kisii, Kitale and Koru (Kipkelion).

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<sup>8</sup> [http://www.kalro.org/Coffee\\_Research\\_Institute](http://www.kalro.org/Coffee_Research_Institute)

<sup>9</sup> [http://www.kalro.org/Coffee\\_Research\\_Institute](http://www.kalro.org/Coffee_Research_Institute)

The institute also runs a demonstration plot in Bungoma. The Institute is headed by a director, Dr. Elijah Gichuru.

- 19) Executive Order 1 of 2018 established the State Department for Agricultural Research which is mandated to promote agricultural research and facilitate the agriculture sector for socio-economic development and industrialization. The specific mandate includes: crop research; agriculture seed research; livestock research and development; tsetse fly and trypanosomiasis research and control; crop genetic research; and animal genetic research.
- 20) Parliament enacted Agriculture, Food and Fisheries Authority (AFFA) and Crops Act, 2013, which repealed the Coffee Act, 2001. Consequently, Coffee Board became a directorate under AFA, with regulatory oversight on the sub-sector.

### **3.0 SUBMISSION BY THE STAKEHOLDERS**

The Committee engaged the following stakeholders on the inquiry regarding the woes facing the Coffee Research Institute:

#### **3.1 Inspection of the Farm**

- 21) The Committee visited the following areas during its tour to the farm on Wednesday, 23<sup>rd</sup> October, 2019:

**Coffee Gene Bank** – The Committee was informed that the coffee gene bank was established to conserve varieties for coffee improvement programs. The gene bank had over 250 germplasm accessions. The germplasm accessions helps in development of new coffee varieties. The main challenge with the gene bank is high cost of maintenance and financial challenges to expand the germplasm conservation at CRI and sub centres.

**Coffee Nursery** – The Committee was further informed that CRI Ruiru Centre had a capacity of **500,000 seedlings**. They supply farmers with the seedlings during both the short and long rains. Other centres of CRI also have coffee nurseries aimed at serving the farmers in the spirit of devolution. The total seedling **capacity at all centres within CRI was 1 million** seedlings annually. The coffee seedlings include improved coffee variety (Batian and Ruiru 11) and the traditional Varieties (SL28, SL34, and K7). Other activities



carried out within the nurseries include **grafting** of Ruiru 11 scions on traditional cultivars root stocks. The nurseries are also used for **training** coffee nursery operators. During the Committee visit the nursery had **350,000 coffee seedlings** at various stages while those ready for planting were **200,000** seedlings. The institute at the time of the Committee visit had 340,000 seedlings ready for planting across all its centres. The challenges within the coffee nurseries include: inadequate financing; erratic weather affecting seed uptake by farmers; old irrigation system; frequent water shortage in Kitale; and inadequate production of some types of seedlings such as Ruiru 11.

**Seed Garden-** The Committee visited the seed garden which had established parental materials for mass production of seeds of Arabica coffee variety Ruiru 11. The Committee was informed that the seed production involves artificial cross pollination between the male and female parents. The hybridization process is both labour intensive and costly. Challenges include: High cost of producing hybrid Ruiru 11 seeds (**KES 22,225 per kg but sold at 7,500**); lack of irrigation for batian seed garden in CRI centres; inadequate skilled labour during the emasculation/ pollination period and grafting for Ruiru 11 seed variety.

**Biotechnology unit** – The Committee was further informed that the Biotechnology unit deals with mass propagation of coffee seedlings through tissue culturing processes. They face challenge of Aged laboratory equipment and understaffing.

**Diversification Project-** The biotechnology unit partners with other institutions to develop in vitro protocols for economically important crops (vanilla, giant bamboo, aloe vera, moringa, cape goose berry, miraa, sweet potato, pineapple and pumpkin). Most of these crops are produced to diversify farmer's income as well as enhance utilization and sustainability of the facility.

### **3.2 Boardroom Deliberations With Coffee Research Institute**

22) After conducting a tour of the farm the Committee proceeded for a board room meeting with Management of KALRO together with the Management of CRI at the Institute Boardroom. Further on Monday, 28<sup>th</sup> October, 2019 the Committee held meeting with the Management of CRI, headed by the Director, Dr. Elijah Gichuru. The following matters

were discussed during the two meetings, the initial meeting and inspection visit held on Wednesday, 23<sup>rd</sup> October at Ruiru and a follow up meeting on Monday, 28<sup>th</sup> October, 2019.

23) **Funding-** The institute was previously funded through Coffee Research Levy at 2% of gross proceeds which was abolished in year 2016. The levies were abolished as they were considered discriminatory to tea and sugar cane farmers since all other commodities that fall under AFA and KALRO were not subjected to such statutory deductions. The position had hampered the activities of the institute which has not been receiving government funding from year 2014 to finance its operations and research work. However, the government did cater for staff emoluments. To finance research work, the institute was dependent on Appropriations in Aid and donor funding. In the current financial year 2019/2020 as shown in (table 2) the budget deficit was KES 457 Million.

**Table 2: Financial situation of CRI between financial year 2010/11 to 2019/20 (000)**

items	2010/11	2011/12	2012/13	2013/14	2014/15	2015/15	2016/17	2017/18	2018/19	2019/20
Budget Request	372,208	486,950	456,352	459,230	519,100	532,891	481,398	466,705	480,707	605,325
GOK exchequer	43,750	41,472	49,500	30,300	0	0	0	0	0	0
Levy collected	396,027	469,027	276,512	327,222	324,245	270,908	0	0	0	0
AIA	90,666	98,490	98,490	92,797	86,017	91,212	150,245	85,602	146,512	109,377
Projects	121,355	26,283	26,283	41,248	80,136	21,138	82,161	48,032	10,212	38,000
Deficit/ Surplus	189,590	148,322	-5,567	-32,337	-28,702	-149,633	-248,992	-333,071	-323,983	<b>(457,948)</b>

Source: CRI

24) **Staff Structure-** The institute had an approved staff establishment of 236 officers, 131 permanent staff and 100 temporary workers while daily workers vary according to seasonal activities. The long term projection was an establishment of 344 permanent staff (table 3).

**Table 3: Staff establishment**

Center	Research		Technical		Administration		Total		
	In	Required	In	Required	In	Required	In	Required	Variance

	Post		post		post		post		
Ruiru	16	41	23	19	68	102	108	162	54
Namwela	0	0	1	2	2	5	3	7	4
Kitale	1	1	1	4	1	7	4	12	8
Koru	0	0	2	6	2	6	4	12	8
Kisii	0	0	2	6	2	8	5	14	9
Azania	0	0	2	7	0	9	2	16	14
Mariene	0	0	2	8	3	5	5	13	8
Total	17	42	33	52	78	142	131	236	105

Source: CRI

**Scientists-** There were seventeen (17) scientists at the institute whose age brackets are shown below on (table 4 )

**Table 4: Scientists and their age brackets**

Age	No
30-49	6
50-54	5
55-60	4
>60	2
Total Scientists Over 50 years	11

Source: CRI

25) **Succession planning-** The Committee was informed that over two thirds of the permanent employees at the institute were above the age of fifty five while the retirement age at the institute was 65 years. Therefore, the said staff, in the next ten years, will have exited the institute. The government had halted employment creating a knowledge gap in the future.

26) **Stalled projects-** the institute was undertaking forty three (43) projects before the coffee research levy was abolished, with only fourteen (14) projects ongoing at suboptimal levels that would take longer to complete (*Annexure 1*). The stalled projects include: Variety improvement; Promotion of coffee into new areas; Leaf analysis for status of coffee nutrition; Pest monitoring; Support to domestic coffee consumption; Installation of irrigation systems preferable drip/nutrigation in Meru, Koru, Ruiru ; Acquisition of smart agriculture equipment; Upgrading of equipment, buildings, machinery; and Staff development.

27) **Key partners** of the institute include: African Caribbean Pacific States- European Union (ACP-EU); French Development Agency; County Governments; Government of Kenya; Kenya Coffee platform; and World Coffee Research.

28) **Coffee Growing Counties-** coffee is grown in the following **32 counties** across Kenya: Nakuru; Laikipia; Elgeyo Marakwet; West Pokot; Baringo; Nandi; Kericho; Narok; Kajiado; Uasin Gishu; Bomet; Meru; Tharaka Nithi; Embu; Machakos; Makueni; Kisii; Nyamira; Homa Bay; Kisumu; Siaya; Kiambu; Murang'a; Kirinyaga; Bungoma; Vihiga; Kakamega; Busia; Taita Taveta; Nairobi; and Trans-Nzoia.

29) **Seed Production-** The Committee was informed that Coffee Research Institute produces seeds for major varieties cultivated in Kenya which include the improved coffee varieties (Batian and Ruiru 11) and the traditional Varieties ( SL28, SL34 and K7). There is no shortage of traditional varieties related to demand which is low and limited to some producers mostly for use as root stock to graft with Ruiru 11. Ruiru 11 was released in 1985 and since then meeting its demand has been a challenge. However due to the hybrid nature of Ruiru 11, its seed production involves artificial cross pollination between male and female parents. The hybridization process is both labour intensive and costly. The process of emasculation and pollination is only effective during off-season when small blocks can be irrigated to induce flowers. There is a huge annual demand of Ruiru 11 variety at about 1.5 Million seedlings while CRI produces about 100, 000 seedlings. Batian variety is pure breed and therefore easier to produce seeds and CRI has been enlarging its seed gardens to produce seeds in its different centres and sub centres.

Table 5: Seeds of coffee varieties Batian and Ruiru 11 produced, Demanded and Supplied from 2012/13 to 2019 ( In kilograms)

Year	Batian			Ruiru 11		
	Production	Demand	Supply	Production	Demand	Supply
2012-2013	2,147	1,470	1,470	143.8	327.5	143.8
2013-2014	1,060	461	461	162.7	282	162.7
2014-2015	1,551	2,361	2,361	138	565	138
2015-2016	850	1,195	1,195	82	1,211	82

2016-2017	2,333	1,354	1,354	68	854	68
2017-2018	991	1,172	1,046	66	1,234	66
2018-2019	2,298	3,572	2,298	169	1,641	169
2019 (July to October)	190	166	180	45	50	42
Total	11,420	11,751	10,365	874.5	6,164.5	871.5

Source: CRI

30) **Salary Delays-** The Committee was informed that delay in salary payment had occurred on two occasions at the institute. The first occurrence was in year 2016/17 as a result of reorganisation in compliance with the Executive Order 1 of 2016, KALRO was moved from State Department for Agriculture to the State Department for Livestock. The reorganisation resulted to movement of the budget allocations to the State Department of Livestock resulting to delayed release of funds to pay staff for two months. The second occasion was in financial year 2018/19 where the allocation given to KALRO did not factor in the approved harmonised salaries that had been effected and funded by the Exchequer with effect from January 2018. The additional funds were factored in Supplementary Estimates II upon approval by the National Assembly and disbursed to KALRO in June 2019. It occasioned two months delay in salary payment. The Committee was informed that although current payments by KALRO were up to date there was a high possibility of future delay in employee salaries since there was a budget deficit of approximately 290 Million to KALRO in the financial year 2019/2020.

31) **Release of new seed Variety-** the Committee was informed that CRI takes approximately 25 years to release a new seed variety. The last variety released was in year 2010 and the current trials will yield a new variety in year 2034.

32) **Impact of Low CRI activities include:-** Threat to the coffee industry due to depressed performance; Reduced stakeholder goodwill in cases where trials were abandoned in farmers farms; Reduced customer confidence in results; Misinformation to the farmers by unqualified and uncoordinated source of information; Reduction of customer confidence in Kenyan coffee which had been built upon knowledge that it is supported by a vibrant research systems; Adoption of technologies that have not been verified scientifically; and Farmers being supplied with low quality planting materials. (table 6 on trend of activities in

CRI)

Table 6: Trend of activities by CRI

Activity	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
Research project	35	33	34	35	35	43	11	10	10
Pesticide evaluation	16	16	9	24	25	23	23	17	15
Field days	81	65	101	53	61	37	5	0	1
On farm advisories	42	43	56	47	38	43	4	14	15
Exhibitions	13	10	19	23	10	12	7	6	9
Residential trainings	47	35	36	35	35	38	36	18	15
Soil samples	5,731	7,983	3,416	1,423	7,754	3,465	2,275	2,948	1,510
Coffee Quality samples	98	52	42	44	58	38	101	227	281
Pesticide quality samples	34	18	5	40	16	3	2	1	1

Source:CRI

33) **Infection of the Institutes Coffee by Coffee Berry Disease (CBD)** – The Committee was informed that the institute has some blocks planted with varieties that are susceptible to CBD and are affected by the disease. Some of the blocks are used for experiments, conservation, varietal assessment and sources of CBD inoculums thus not sprayed. Where the blocks are available for commercial purpose, application of fungicides is delayed at times due to shortage of funds and irregular inflows.

34) **Absentee Employees-** the Committee was informed that the institute had 886 staff prior to retrenchment carried out in year 2002 triggered by down turn of the coffee industry as the levies were inadequate to finance the institute. Currently the institute had 236 staff serving in all the centres and sub centres. Staff reduction may give an impression that the institute

was deserted. Most of the staff were deployed to undertake both laboratory and field activities.

### 3.3 Meeting with Kenya Coffee Producers Association (KCPA)

- 35) On Monday 28<sup>th</sup> October, 2019 the Committee met representatives of Kenya Coffee Producers Association (KCPA) led by the CEO, Ms Josephine Njoki. KCPA, a non-political, non-profit membership umbrella organization of coffee farmers in Kenya currently representing the interests of approximately 343,536 households of coffee farmers spread out in all the 31 coffee growing counties. The vision of KCPA is to be an active and effective representative organization that voices the concerns of coffee producers in Kenya.
- 36) The Committee was informed that about 70% of Kenyan coffee is produced by small-scale holders who are required by law to process and sell their coffee through the local cooperative societies while the remaining 30% is produced by coffee estate farmers.
- 37) Further, Kenya's coffee value chain is characterized by extreme fragmentation at the grower level and a heavy concentration of powerful players further upstream. This fragmentation is less extreme for estate owners because they own processing factories and their coffee farm size results in high negotiating power to by pass the marketing agents and sell their coffee directly to exporters.
- 38) On matters regarding CRI, a notable achievement of the Institute is development of two coffee varieties that are resistant to the common coffee diseases i.e. coffee leaf rust and coffee berry disease. The Committee was presented with the following challenges that coffee farmers are facing:
- 39) **Inadequate agronomic skills-** Ministry of Agriculture, Livestock and Fisheries officers lack adequate skills specifically on coffee – leading to **inefficient/ineffective extension service**. Lack of visitation by extension officers due to demand driven services resulting to poor coffee farming practices (e.g. untimely application of fertilizers and chemicals) which results to low quality and quantity coffee, thus low prices. The role of CRI was to provide timely advisory services through field visits, agricultural shows, radio programs, use of

demonstrations plots, publications, use of modern technology such as social media, as per its mandate

- 40) **High cost of production**- occasioned by high cost of inputs, untimely, unpredictable and unreliable provision of subsidized fertilizers, **unaffordable disease resistant planting** seedlings (Ruiru 11 and Batian) and high cost of labour. The role of CRI was to capacity build the farmers on conversion of traditional varieties to Ruiru 11 and batian and ensure the availability of the seedlings; Conduct soil analysis services; Quality control of fertilizers and agro chemicals through testing and evaluation of new fertilizers and chemicals; continuous research on disease resistant varieties among others.
- 41) **Negative effects of climatic change** characterized by unpredictable weather patterns, drought and floods. CRI should develop coffee seed varieties that are resilient to climate change and build capacity of farmers on mitigation and adaptation strategies.
- 42) **Review of Crops (Coffee) (General) Regulations, 2019**- The regulations lack transparency in the entire process of milling, grading and classification of coffee; with numerous marketing intermediaries in the marketing chain who take the bulk of the money. Coffee General regulations, 2019 should be reviewed to seal the gap.
- 43) **Low coffee prices** due to low domestic consumption and over reliance on exports which are exposed to external shocks. Many farmers have abandoned coffee and turned to other enterprises. (The area under coffee is currently approximately 109,795 hectares down from 170,000 hectares). CRI should provide advisory services to ensure production of quality coffee that will fetch high prices. Further Research on production of high yielding varieties that are disease resistant should be conducted.
- 44) **Delayed coffee payments** - Farmers are discouraged by late payments and this is one of the reasons they are abandoning coffee farming. Coffee regulations should be reviewed.
- 45) **Inadequate funds**- to support coffee farming activities including procuring of farm inputs and labour, Therefore the supply of credit for coffee farming is inadequate or disbursement of the funds from initiatives such as Commodity Fund may not be effective. There was



need to do an analysis on how commodity funds are disbursed to farmers and assess the efficiency of the systems.

- 46) **Create a research fund-** The fund should be funded and managed by farmers in partnership with the government. The funds should be used to support direct research activities while other administrative costs like staff salaries should be financed by the government. Government to finance and support research fully. Further **Internally generated funds by CRI** should not be pooled under KALRO but should be left for the institute to manage in order to meet overheads
- 47) **Quality and productivity-** The Committee was informed that the best quality coffee variety was SL, Batian, Ruiru 11 in that order. However in terms of production it's the reverse order starting with Ruiru 11, Batian, SL in that order. Ruiru 11 is a high yielder producing approximately 20 to 42 kgs per bush annually, Batian averages 20 kgs per bush while SL variety averages 10 kgs per bush annually.
- 48) **Effects of abolishing 2% coffee research levy** – cost of coffee seedling purchase was 25 KES per seedling, currently the cost was 40 KES per seedling. The training fee at CRI was 11,000 KES but reviewed to 35,000 KES, therefore was beyond the reach of farmers.

### **3.4 Meeting with Kenya Agricultural & Livestock Research Organization (KALRO)**

- 49) On Tuesday 29th October, 2019 the Committee met officials from the Kenya Agricultural & Livestock Research Organization (KALRO) led by the Director General, Dr. Eliud Kireger who informed the Committee that:-
- 50) The mandate of KALRO was to promote, streamline, co-ordinate and regulate research in crops, livestock, genetic resources, biotechnology, animal genetics and expedite equitable access to research information, resources and technology and promote the application of the research findings and technology in the field of agriculture and livestock.

51) KALRO is an umbrella body that brings together the following former organizations:- Kenya Agricultural Research Institute (KARI); Tea Research Foundation (TRF); Coffee Research Foundation (CRF); and Kenya Sugar Research Foundation (KESREF). KALRO has 16 institutes, 53 Centres and Sub-Centres strategically located in the country to enable the organization meet the demands of farmers throughout Kenya.

**Table 7: KALRO'S 16 Research institutes**

<b>Crop Research Institute</b>	<b>Livestock Research Institutes</b>
Food Crops Research Institute	Apiculture Research Institute
Horticulture Research Institute	Biotechnology Research Institute
Industrial Crops Research Institute	Dairy Research Institute
Genetic Resources Research Institute	Beef Research Institute
Tea Research Institute	Veterinary Research Institute
Coffee Research Institute	Arid & Range Research Institute
Sugar Research Institute	Sheep & Goat Research Institute
Agriculture Mechanization Research Institute	Non Ruminant Research Institute

Source: KALRO

52) **Staff Establishment-** Since 2014, the number of staff had diminishing owing to varied reasons, which range from retirement, death, resignation among others. In order to fill the short-term gaps and to implement the KALRO Human Resource strategy, there was need to recruit staff so as to sustain research programs.

Table 8: staff establishment at KALRO

<b>Job Title</b>	<b>Inpost</b>	<b>Proposed</b>	<b>Variance</b>
Research Scientists	507	765	258
Research Support	485	835	350
Administrative staff	1,342	2,012	588
Total	2,334	3,612	1,278

53) **KALRO age analysis** - Most research staff are evenly spread in bracket of 51-55 and 61-65 years of age categories accounting for approximately 74% of existing research scientists close to retirement.

Table 9: KALRO age analysis

	<b>Scientists</b>	<b>Technical</b>	<b>Administration</b>
Above 60	207	0	0
56-60	102	259	722
51-55	64	114	339
46-50	54	60	137
41-45	61	32	97
36-40	14	19	44
31-35	5	1	0
26-30	0	0	4
Total	507	485	1,342

Table 10: Budget request and allocation for financial year 2019/2020

<b>Description</b>	<b>Requirement(Ksh)</b>	<b>Allocation(Ksh)</b>	<b>Deficit(Ksh)</b>
GoK Recurrent	4,743,790,000	4,129,000,000	(614,790,000)
GoK Development	2,152,600,000	76,000,000	(2,076,600,000)
AIA	880,000,000	880,000,000	
Development partners	2,149,000,000	2,149,000,000	
Total	9,925,390,000	7,234,000,000	(2,691,390,000)

Table 11: Budget request and allocation for staff emoluments, operation and maintenance for financial year 2019/2020

<b>Recurrent</b>	<b>Requirement</b>	<b>Allocation</b>	<b>Deficit</b>
Personal Emoluments	4,023,730,000	3,629,000,000	(394,730,000)
Operations & Maintenance	720,060,000	500,000,000	(220,060,000)
Totals	4,743,790,000	4,129,000,000	(614,790,000)

The funds for staff emoluments and operation & maintenance are required to implement fully harmonized salaries with proper placement and smooth operation and maintenance.

Table 12: Budget request Allocation analyzed per four former research institutions for financial year 2019/2020

Requirements	CRI (Ksh)	SRI(Ksh)	TRI(Ksh)	KARI(Ksh)	Total (Ksh)
Recurrent(PE&O&M)	240,324,509	164,473,490	245,364,550	4,093,627,451	4,743,790,000
Development (Adaptive and strategic)	365,000,000	321,400,000	345,800,000	4,149,400,000	5,181,600,000
<b>Total Requirement</b>	<b>605,324,509</b>	<b>485,783,490</b>	<b>591,164,550</b>	<b>8,243,027,451</b>	<b>9,925,390,000</b>
Budgetary Allocation					
GOK Recurrent	-	-	-	4,129,000,000	4,129,000,000
GOK Development	-	-	-	76,000,000	76,000,000
AIA	109,376,808	21,819,512	96,070,315	652,733,365	880,000,000
Development Partners	38,000,000	-	-	2,111,000,000	2,149,000,000
Total Allocation	147,376,808	21,819,512	96,070,315	6,968,733,365	7,234,000,000
<b>Deficit</b>	<b>(457,947,701)</b>	<b>(464,053,978)</b>	<b>(495,094,235)</b>	<b>1,274,429,086)</b>	<b>(2,691,390,000)</b>

54) Research on crops such as Tea, Coffee and sugar do not attract funding by the development partners. These research areas were mainly funded by levies which were abolished in year 2016 **resulting** to shifting of budget to KALRO without a similar compensation from Exchequer. It was evident that abolition of levies has adversely affected their operations.

55) Key challenges facing KALRO include: poor state of research equipment, infrastructure and inadequate farm machinery; shortage of staff especially amongst the scientists and technical staff; and disquiet among staff due to placement challenges and lack of annual salary increment.

### 3.5 Meeting with the Ministry of Agriculture, Livestock and Fisheries

56) On Tuesday 29th October, 2019 the Committee met officials of the Ministry of Agriculture, Livestock and Fisheries who were represented by a team led by the Principal Secretary, State Department of Crop Development and Agricultural Research Pro. Hamadi Iddi Boga.

57) The Committee was informed that the Government recognizes coffee as an important livelihood crop, a key foreign exchange earner and therefore one of the crops identified for promotion under the Big 4 agenda. Since 2013, in line with the devolved structure of Government, the county governments were mandated to promote production and marketing of coffee, while the National government dealt with coffee policy and international trade, through the Agriculture and Food Authority (AFFA). Similarly, The Coffee Development Fund, formerly a specialized coffee financing agency that had been set up in 2006, was absorbed by the newly created Commodities Fund. However, Coffee research services were under the Agricultural and Livestock Research Organization (KALRO).

58) The PS further stated that on 1st July 2014, four (4) State Corporations namely; Kenya Agricultural Research Institute (KARI), Tea Research Foundation (TRF), Coffee Research Foundation (CRF) and Kenya Sugar Research Foundation (KESREF) were dissolved and merged to form Kenya Agricultural and Livestock Research Organization (KALRO), however, the Act was silent on how these institutions were to be funded. CRF was consequently transformed into Coffee Research Institute (CRI) under KALRO

59) Members were informed that Tea, Flowers and Coffee are the key crops which contribute to high income from exports. However most of the areas that the Country invests in is in food crops like sugarcane and maize. 98% of our farmers are small holder farmers for all crops. There are 800,000 small holder farmers in coffee and 600,000 small holder farmers of Tea.

The PS provided the following key challenges that are affecting CRI:-

60) **Weak Research Ecosystem**-A strong research ecosystem requires support from society and by policy makers. Society must demand evidence based solutions and policy makers must create the instruments and institutions to support strong research endeavors. Kenya has strong policies in research and has established required institutions however **financing and research capacity management** remain a major handicap at all levels.

61) **Human Resource**- Majority of the researchers with PhD in KALRO are above 55 years old. Due to a freeze in recruitment and low salaries, there is little new talent joining KALRO. As a result, most of the Institutes have shied away from cutting age research to

support agricultural development. To improve, the structure of KALRO needs to be relooked as follows

- i. **Board-** Composition of the Board should be designed to promote research excellence and should include eminent international scientists.
- ii. **Management-** Need to attract the best to lead KALRO Research Institutes from within and without.
- iii. **Staffing:** Each thematic area should be led by an eminent scientist supported by assistants and a team of Post-Doctoral, MSc fellows and Technical staff. This is the structure globally. Hiring of staff should be at PhD level. The rest should be training positions. There should be opportunities for a small pool of international Scientists to work at KALRO (as happens in Universities).

62) **Old Infrastructure and Technologies-** Tools used by researchers changed fast as the convergence of digital applications, space technology and Biotechnologies quickly change the way science and innovation is done. Lack of funding has turned KALRO and by extension many of its institute into static institutions that are unable to keep pace with the dynamic developments in science.

63) **Cultural Constraints within KALRO** - Performance management within the research community is measured through fund-raising, publications, innovation output and impact on community. Apart from the Management Board, **KALRO lacks a scientific advisory board** which can push all KALRO scientists towards excellence in research. The work and scientific culture around KALRO and other research Institutes needs to deliberately be re-engineered towards excellence in research and innovation. Recruitment, promotion and tenure should be guaranteed through relevance of scientific fields, excellence in research and impact to communities/farmers/industry.

64) **Weak Collaborative linkages-**For coffee research to excel, it must have collaborations with the best coffee research laboratories in the world. It must establish exchange linkages for staff and students to advance their own research. Generally for crops like Maize, Sorghum, Millet and Pulses have donor funding, there is strong collaboration with Universities and Consortium of International Agricultural Research (CGIAR) Centres, but this is not replicated in cash crops like Tea, Coffee and Sugar.

65) **Financing of Agricultural Research-** Before merger, the Coffee Research Foundation was funded mainly through a levy on coffee sales. However, levies for coffee were abolished alongside levies for other cash crops. This has impacted negatively on research on coffee. It is therefore necessary to prioritize financing of Agricultural Research and identify other reliable sources of financing for research on coffee or to reinstate the levies. Table 13 shows the relative weights of agricultural functions as a proportion of the Public Sector in Support of Agriculture. Both recurrent and development expenditures had been considered. On average, infrastructure has the highest share at 26%, versus 22% for subsidies, **21% for knowledge** expenditures and 20% for multipurpose projects

Table 13. The share of the national level public expenditure allocation to agriculture sector, by agricultural functions, 2013/14-2016/17.

Agric. Function	Share by function				
	2013-14	2014-15	2015-16	2016-17	Average
<b>Subsidies</b>	<b>21%</b>	<b>23%</b>	<b>21%</b>	<b>25%</b>	<b>22%</b>
Capital subsidies	0%	0%	1%	0%	0%
Input subsidies	12%	13%	16%	13%	13%
Storage subsidies	8%	10%	4%	12%	8%
<b>Knowledge</b>	<b>12%</b>	<b>24%</b>	<b>26%</b>	<b>22%</b>	<b>21%</b>
Research	6%	15%	20%	15%	14%
Extension and advisory services	3%	4%	1%	1%	2%
Training	0%	1%	1%	2%	1%
Inspection/quality control	3%	5%	3%	5%	4%
<b>Infrastructure</b>	<b>34%</b>	<b>21%</b>	<b>25%</b>	<b>24%</b>	<b>26%</b>
Feeder Roads	0%	0%	0%	0%	0%
Irrigation	26%	20%	23%	18%	21%
Other infrastructure	3%	0%	0%	2%	1%
Processing and marketing	5%	1%	2%	4%	3%
<b>Multipurpose</b>	<b>26%</b>	<b>18%</b>	<b>14%</b>	<b>22%</b>	<b>20%</b>
Multipurpose projects	14%	6%	8%	10%	9%
Multipurpose - SAGA	12%	12%	7%	13%	11%
<b>Administrative costs</b>	<b>7%</b>	<b>14%</b>	<b>15%</b>	<b>7%</b>	<b>10%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Agriculture Sector Expenditure Review, 2018

66) Table 13 depicts that spending on knowledge at 21%. However, most of the research funds allocated to KALRO which amalgamated research institutions in the agriculture sector. The aggregate spending on research was ten times below the **1% of agricultural GDP** target decided upon by the Executive Council of the African Union in the 2006 Khartoum Decision for Agriculture and Technology (African Union, 2006). In addition, the 2% share of spending on extension and advisory services and 1% share on training leaves knowledge dissemination activities significantly underfunded.

67) **Collaboration with the Private Sector/Industry**-In the past Industry funded Coffee research Institute using levies. Industry was also part of the Boards of those institutes. Removal of the levies resulted in a pressing constraint to funding. Further, lack of linkages of agricultural research to private sector funding sources partly because of cultural and structural reasons. There is therefore, need to identify and develop incentives to attract industry funding into agricultural research.

68) **Research Funding**- Treasury established the National Research Fund however its structure and leadership has struggled to meet the expectation of stakeholders and to even absorb funds. The fund has only 2 staff and has not been able to recruit a CEO, with the Ministry of Education seconding officers to manage the fund. The structure of the fund and its management needs to be revamped. The fund should be dedicated to basic research in all fields and should attract the 2% of the Budget as approved by parliament in the Science, Technology and Innovation Act 2012.

69) The Ministry of Agriculture, Livestock and Fisheries proposes the establishment of a dedicated **Kenya Agricultural Research and Innovation Fund (KARIF)**, which will offer competitive grants to support the development of agricultural research in the country (focusing on promoting and supporting research through funding, human resource development and the provision of the necessary research facilities in order to facilitate the creation of knowledge, innovation and development in all fields of science and technology, based on a knowledge-bio economy; and thereby contribute to the improvement of quality of life in the country.



### 3.6 Review of the Recommendations of the National Task Force on Coffee Sub-Sector Reforms

- 70) On Tuesday 29th October, 2019 the Committee held a meeting and reviewed recommendations made by the National Task Force on Coffee Sub-Sector Reforms which was appointed on 4<sup>th</sup> March 2016, by His Excellency the President, Uhuru Kenyatta, to review the entire coffee value chain and identify areas requiring interventions such as production, processing and marketing of coffee; examine the existing policy, institutional, legislative and administrative structures and systems in the coffee industry; and recommend comprehensive reforms among other key issues.
- 71) The Committee limited its review to recommendations by the Task force concerning Coffee Research Institute. The Task Force in addressing dwindling coffee production occasioned by high production costs in: fertilizers; pest and disease control (30-35% cost is towards disease control) and shrinking area under coffee due to urbanization, **recommended establishment of a sub-sector subsidy programme to smallholder farmers and small coffee estates (less than 20 acres)**. It would boost coffee production in the immediate term from the current average production of 2kgs of cherry per tree per year to 8kgs within 2-4 years. The estimated cost of the subsidy programme was KSh. 1.21 billion for the first Financial Year, 2016/2017, and KSh. 2.47 billion for the next two Financial Years.
- 72) **The subsidy in relation to CRI was to provide a package to cater for-**
- i. Funds to be provided to CRI to expand production of coffee seed and planting material, and cooperatives to establish and distribute coffee planting mainly for the new varieties, Ruiru 11 and Batian. The subsidy was to be offered as a package where coffee farmers would also be supported to adopt new coffee varieties (Ruiru 11 and Batian) by funding CRI to increase its capacity and establish coffee nurseries at each of the 500 coffee societies. The societies would also be given an incentive package (matching grant) to offer technical services to their members. This activity would be geared towards the youth.
  - ii. **Capacity building** to support farmers in coffee husbandry to increase production, training of factory managers on processing, and training of society Board of Management. To ensure that all societies benefit from support, a collaborative **financial support kitty**

**nested in CRI** should be created and any development partners interested in supporting the sector should contribute to this kitty. The provision of extension services should be undertaken together with County governments as the services were devolved.

- iii. **Pillar Six on Institutional Support of the National Task Force on Coffee Sub-Sector Reforms** established that there were serious institutional weaknesses in key institutions that deal with the coffee sub-sector. To address this, the Task Force proposed financial and technical support amounting to KSh. 350 Million in 2016/2017 Financial Year to State Department of Cooperatives, Coffee Research Institute, Nairobi Coffee Exchange, and Coffee Directorate

73) The task force as well noted that coffee sub-sector statutory deductions **that fund research and regulation under the law were discriminatory**. Further the task force noted that research and regulation functions of the sub-sector fall in the jurisdiction of AFA and KALRO, both of which cover other commodities that are not subjected to comparable statutory deduction, it was clear that the coffee farmer was overburdened.

#### 4.0 COMMITTEE OBSERVATIONS

74) The Committee observed that:

- (n) From the information provided by the CRI, CRI is mandated to provide timely advisory services through field visits, agricultural shows, radio programs, use of demonstrations plots, publications, use of modern technology such as social media, and provision of quarterly weather bulletins and disease and insect pest management protocols but these functions had been scaled down.
- (o) The CRI's 50% funding came from the Coffee Research Levy at 2% of gross coffee proceeds; however, the levy was abolished in 2016.
- (p) There had been salary delays at CRI on two occasions— first, during the reorganization of the CRI in in compliance with the Executive Order 1 of 2016 and secondly in financial year 2018/19 where the allocation given to KALRO did not factor in the approved harmonised salaries that had been effected and funded by the Exchequer with effect from January 2018— however, these had since been resolved and that the current payments by KALRO were up to date.
- (q) The last variety of coffee was released by CRI in the year 2010 and since then there has been no new variety.
- (r) The laboratory equipment in CRI are obsolete.
- (s) The CRI lacks modern irrigation infrastructure for coffee nurseries.
- (t) The CRI had seventeen scientists against an establishment of thirty scientists. The total workforce at the institute is 223 employees and two thirds of the workforce is above age fifty five.
- (u) The Auditor General regularly conducts financial audit of the KALRO; however, scientific audit on technologies and processes within the research institutes had never been conducted.
- (v) CRI produces 100,000 seedlings of “Ruiru II” seedlings per year whereas the demand is 1.5 million seedlings per year.
- (w) The National Task Force on Coffee Sub-Sector Reforms reviewed the entire coffee value chain and identified areas requiring interventions and made recommendations to address the challenges in CRI.
- (x) Since 2014, the number of staff in KALRO had been diminishing owing to varied reasons, which range from retirement, death, resignation among others.

- (y) From KALRO's age analysis, most research staff are evenly spread in bracket of 51-55 and 61-65 years of age categories accounting for approximately 74% of existing research scientists close to retirement.
- (z) Although Kenya has strong policies in research and has established required institutions, financing and research capacity management remain a major handicap at all levels.

## 5.0 COMMITTEE RECOMMENDATIONS

75) The Committee recommends that:

- (f) The National Treasury allocates funds for implementation of recommendations by the National Task Force on Coffee Sub-Sector Reforms on funding CRI to expand production of coffee seed and planting material, and cooperatives to establish and distribute coffee planting mainly for the new varieties, Ruiru 11 and Batian; creation of a financial Kitty to support research to be nested in CRI; and financial & technical support amounting to KSh. 350 Million to State Department of Cooperatives, Coffee Research Institute, Nairobi Coffee Exchange, and Coffee Directorate.
- (g) The National Treasury introduces a coffee research levy at not more than 1% of the gross coffee proceeds to support coffee research and extension services.
- (h) Financing of agricultural research should be prioritized by the Government and other reliable sources of financing for research on coffee should be identified and implemented.
- (i) KALRO conducts a scientific audit on efficiency, effectiveness and economy on technologies and processes within the research institutes.
- (j) CRI works closely with farmers in coffee producing regions for adoption of innovations in research and provision of timely advisory services.

Signed .....

Date .....

**HON. EMMANUEL WANGWE, MP.**

**VICE – CHAIRPERSON**

**DEPARTMENTAL COMMITTEE ON AGRICULTURE AND LIVESTOCK**

# ANNEX 1

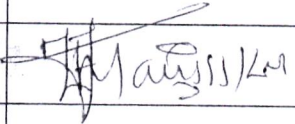
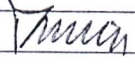

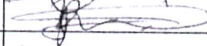
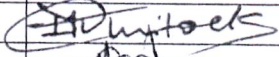

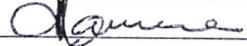

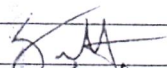

# MINUTES

**THE NATIONAL ASSEMBLY**  
**DEPARTMENTAL COMMITTEE ON AGRICULTURE AND LIVESTOCK**  
**MEMBERS ATTENDANCE SCHEDULE**

DATE:.....START:.....END:.....

VENUE:.....

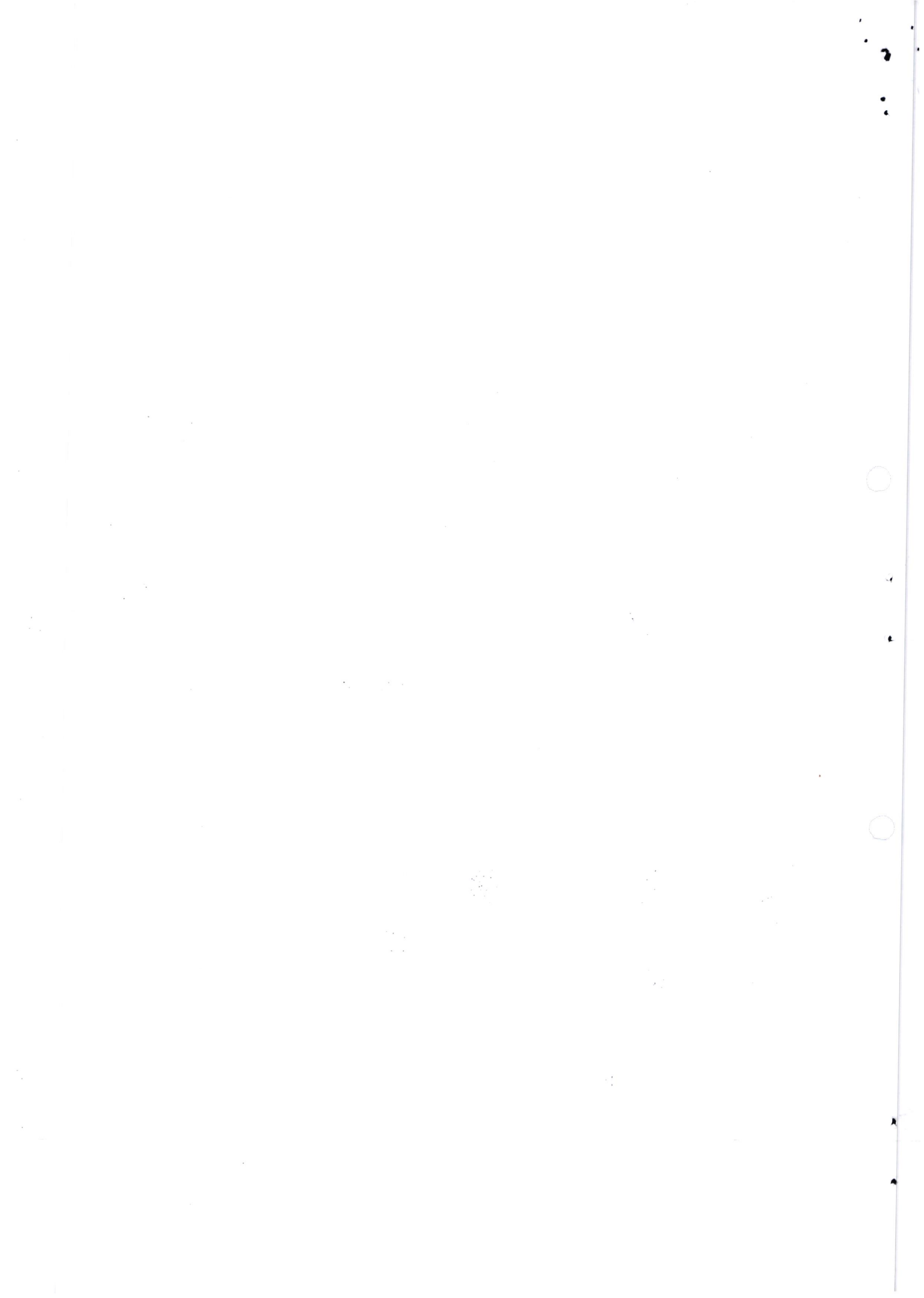
AGENDA: ADOPTION OF REPORT - CRI REPORT

	NAME	TITLE	SIGNATURE
1	Hon. Adan Haji Ali, MP.	CHAIRPERSON	
2	Hon. Emmanuel Wangwe, MP.	VICE-CHAIRPERSON	
3	Hon. Maison Leshoomo, MP.		
4	Hon. Ferdinard Wanyonyi, MP.	Member	
5	Hon. Florence Mutua, MP.		
6	Hon. Simba Arati, MP.		
7	Hon. Francis Munyua Waititu, MP.		
8	Hon. Silas Kipkoech Tiren, MP.	member.	
9	Hon. John Paul Mwirigi, MP.	member	
10	Hon. Adan Haji Yussuf, MP.		
11	Hon. Janet Jepkemboi Sitienei, MP.		
12	Hon. Gabriel Kago Mukuha, MP.		
13	Hon. Daniel Kamuren Tuitoek, MP.	Member	
14	Hon. Fred Ouda, MP.	Member	
15	Hon. Joyce Kamene, MP.	Member	
16	Hon. Yegon Brighton Leonard, MP.	member	
17	Hon. Dr. John Kanyuithia Mutunga, MP.		
18	Hon. Silvanus Osoro Onyiego, MP.	Member	
19	Hon. Justus Makokha Murunga, MP.	"	

COMMITTEE

CLERK:.....

DIRECTOR:.....





ANNEX 2

ADOPTION LIST

**MINUTES OF THE 46<sup>TH</sup> SITTING OF THE DEPARTMENTAL COMMITTEE ON AGRICULTURE AND LIVESTOCK HELD ON MONDAY 19<sup>TH</sup> NOVEMBER 2019 IN THE CONFERENCE ROOM, 3<sup>RD</sup> FLOOR, ENGLISHPOINT MARINA AT 2.30PM**

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**PRESENT**

1. Hon. Emmanuel Wangwe, MP. **Vice- Chairperson**
2. Hon. Dr. Daniel Kamuren Tuitoek, MP
3. Hon. Dr. John Kanyuithia Mutunga, MP
4. Hon. Justus Makokha Murunga, MP
5. Hon. Adan Haji Yussuf, MP
6. Hon. John Paul Mwirigi, MP.
7. Hon. Yegon Brighton Leonard, MP
8. Hon. Fred Ouda, MP.
9. Hon. Joyce Kamene, MP.

**APOLOGIES**

1. Hon. Adan Haji Ali, MP. **Chairperson**
2. Hon. Ferdinard Wanyonyi, MP.
3. Hon. Simba Arati, MP.
4. Hon. Francis Munyua Waititu, MP.
5. Hon. Silas Kipkoech Tiren, MP
6. Hon. Janet Jepkemboi Sitienei, MP
7. Hon. Gabriel Kago Mukuha, MP
8. Hon. Silvanus Osoro Onyiego, MP
9. Hon. Maison Leshoomo, MP.
10. Hon. Florence Mutua, MP.

**COMMITTEE SECRETARIAT**

- |                         |   |                   |
|-------------------------|---|-------------------|
| 1. Mr. Ahmad Kadhi      | - | Clerk Assistant 1 |
| 2. Mr. Salem Lorot      | - | Legal Counsel     |
| 3. Mr. John Ng'ang'a    | - | Audio Officer     |
| 4. Mr. Alex Mutuku      | - | Sergeant At- Arms |
| 5. Mr. Moses Musembi    | - | Office Assistant  |
| 6. Mr. Sakana Ole Saoli | - | Intern            |

**MIN.NO. DC/A&L/256/2019: PRELIMINARIES**

The Chairperson called the meeting to order at fifty minutes past Two O'clock. Proceedings began with prayers and introductions.

**MIN.NO. DC/A&L/257/2019: CONSIDERATION OF THE REPORT ON THE INQUIRY INTO THE CHALLENGES FACING THE COFFEE RESEARCH INSTITUTE**

The Members present deliberated on the report and thereafter made the following resolutions;

- 1) The Committee observed that:

- (a) From the information provided by the CRI,\* CRI is mandated to provide timely advisory services through field visits, agricultural shows, radio programs, use of demonstrations plots, publications, use of modern technology such as social media, and provision of quarterly weather bulletins and disease and insect pest management protocols but these functions had been scaled down.
- (b) The CRI's 50% funding came from the Coffee Research Levy at 2% of gross coffee proceeds; however, the levy was abolished in 2016.
- (c) There had been salary delays at CRI on two occasions— first, during the reorganization of the CRI in compliance with the Executive Order 1 of 2016 and secondly in financial year 2018/19 where the allocation given to KALRO did not factor in the approved harmonised salaries that had been effected and funded by the Exchequer with effect from January 2018— however, these had since been resolved and that the current payments by KALRO were up to date.
- (d) The last variety of coffee was released by CRI in the year 2010 and since then there has been no new variety.
- (e) The laboratory equipment in CRI are obsolete.
- (f) The CRI lacks modern irrigation infrastructure for coffee nurseries.
- (g) The CRI had seventeen scientists against an establishment of thirty scientists. The total workforce at the institute is 223 employees and two thirds of the workforce is above age fifty five.
- (h) The Auditor General regularly conducts financial audit of the KALRO; however, scientific audit on technologies and processes within the research institutes had never been conducted.
- (i) CRI produces 100,000 seedlings of "Ruiru II" seedlings per year whereas the demand is 1.5 million seedlings per year.
- (j) The National Task Force on Coffee Sub-Sector Reforms reviewed the entire coffee value chain and identified areas requiring interventions and made recommendations to address the challenges in CRI.
- (k) Since 2014, the number of staff in KALRO had been diminishing owing to varied reasons, which range from retirement, death, resignation among others.

(l) From KALRO's age analysis, most research staff are evenly spread in bracket of 51-55 and 61-65 years of age categories accounting for approximately 74% of existing research scientists close to retirement.

(m) Although Kenya has strong policies in research and has established required institutions, financing and research capacity management remain a major handicap at all levels.

2) The Committee therefore recommended that:

(a) The National Treasury allocates funds for implementation of recommendations by the National Task Force on Coffee Sub-Sector Reforms on funding CRI to expand production of coffee seed and planting material, and cooperatives to establish and distribute coffee planting mainly for the new varieties, Ruiru 11 and Batian; creation of a financial Kitty to support research to be nested in CRI; and financial & technical support amounting to KSh. 350 Million to State Department of Cooperatives, Coffee Research Institute, Nairobi Coffee Exchange, and Coffee Directorate.

(b) The National Treasury introduces a coffee research levy at not more than 1% of the gross coffee proceeds to support coffee research and extension services.

(c) Financing of agricultural research should be prioritized by the Government and other reliable sources of financing for research on coffee should be identified and implemented.

(d) KALRO conducts a scientific audit on efficiency, effectiveness and economy on technologies and processes within the research institutes.

(e) CRI works closely with farmers in coffee producing regions for adoption of innovations in research and provision of timely advisory services.

**MIN.NO. DC/A&L/258/2019: ADJOURNEMENT**

The Vice - Chairperson adjourned the meeting at fifty minutes past six O' Clock to Wednesday 20<sup>th</sup> November, 2019 at 9.30 am.

Signed.....

**HON. EMMANUEL WANGWE, MP  
(VICE - CHAIRPERSON)**

Date.....