STRATEGIC PLAN
2018 2023

THEME:
Human Health Research For Sustainable Development.
Vision
To be a Leading Centre of Excellence in Research for Human Health

Mission
To Improve Human Health and Quality of Life through Research, Capacity Building, Innovation and Service Delivery

Motto
In Search of Better Health

Core Values
The culture of practice fostered by KEMRI is intended to advance dynamic nature of the institute and demonstrable change that reflects the core values of the Institute. Institute core values are abbreviated as PICTURE.

Purity
We uphold purity/ sanctity of life

Innovativeness
We are committed to promoting and supporting creativity and innovation

Customer focus
We value our customers, and we endeavor to be customer focused

Teamwork
We believe there is strength in teamwork and therefore, we encourage team spirit in what we do.

Uprightness/ Integrity
We uphold zero tolerance to corruption

Respect and fairness
We uphold the philosophy of respect and fairness to all

Excellence
We are committed to excellence and highest standards of professionalism
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# Acronyms and Abbreviations

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<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>AHSC</td>
<td>African Health Sciences Congress</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>AJHS</td>
<td>African Journal of Health Sciences</td>
</tr>
<tr>
<td>ANDI</td>
<td>African Network for Drug and Diagnostic Innovation</td>
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<tr>
<td>CBRD</td>
<td>Centre for Biotechnology Research and Development</td>
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<tr>
<td>CCR</td>
<td>Centre for Clinical Research</td>
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<tr>
<td>CGHR</td>
<td>Centre for Global Health Research</td>
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<tr>
<td>CGMR-C</td>
<td>Centre for Geographic Medicine Research – Coast</td>
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<tr>
<td>CHMT’s</td>
<td>County Health Management Teams</td>
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<td>CIPDCR</td>
<td>Centre for Infectious &amp; Parasitic Diseases Control Research</td>
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<td>CMR</td>
<td>Centre for Microbiology Research</td>
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<tr>
<td>CRDR</td>
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<tr>
<td>CPHR</td>
<td>Centre for Public Health Research</td>
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<tr>
<td>CTMDR</td>
<td>Centre for Traditional Medicine and Drugs Research</td>
</tr>
<tr>
<td>CVR</td>
<td>Centre for Virus Research</td>
</tr>
<tr>
<td>DHSS</td>
<td>Demographic Health Surveillance Systems</td>
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<tr>
<td>DNDi</td>
<td>Drugs for Neglected Diseases</td>
</tr>
<tr>
<td>EAC</td>
<td>East Africa Community</td>
</tr>
<tr>
<td>ESACIPAC</td>
<td>Eastern &amp; Southern Africa Centre of International Parasite Control</td>
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<tr>
<td>FGDs</td>
<td>Focus Group Discussions</td>
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<tr>
<td>GBV</td>
<td>Gender Based Violence</td>
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<td>GCP</td>
<td>Good Clinical Practice</td>
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<tr>
<td>GoK</td>
<td>Government of Kenya</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>KAIS</td>
<td>Kenya Aids Indicator Survey</td>
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<tr>
<td>KASH</td>
<td>KEMRI Annual Scientific and Health conference</td>
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<tr>
<td>KDHS</td>
<td>Kenya Demographic Health Surveys</td>
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<tr>
<td>KEMRI</td>
<td>Kenya Medical Research Institute</td>
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<td>KNMS</td>
<td>Kenya National Micronutrient Survey</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>NACOSTI</td>
<td>National Commission for Science, Technology and Innovation</td>
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<td>NCDs</td>
<td>Non-Communicable Diseases</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
</tr>
<tr>
<td>SERU</td>
<td>Scientific, Ethics Regulatory Unit</td>
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<tr>
<td>SLDP</td>
<td>Strategic Leadership Development Programme</td>
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<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities and Threats</td>
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<tr>
<td>TWG</td>
<td>Technical Working Group</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
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<td>WHO</td>
<td>World Health Organization</td>
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PREFACE

Kenya Medical Research Institute (KEMRI) is thirty nine (39) years since it was established as a national body responsible for carrying out research for human health in Kenya. Within the Health Sector, KEMRI has continued to provide leadership in health research & development, shape the national health research agenda, articulate evidence-based policy options, monitoring and assessing health trends as well as dealing with trans-boundary health threats and disease outbreaks.

Despite the tremendous achievements realized, the Institute has faced a number of challenges in executing its mandates. Key among them is inadequate government funding for health research resulting in a high reliance on donor funding, inadequate human resource for specialized areas, limited specialized research facilities including high-tech-laboratories, aging infrastructure, inadequate uptake of research findings and weak legislative framework for health research.

The development of KEMRI Strategic Plan 2018-23, which is the fourth strategic plan for the Institute and a successor of the recently ended strategic plan 2013-17 will strengthen areas of success and mitigate the challenges as encountered in the previous plans. This Strategic Plan will streamline the conduct of biomedical research to increase innovation and improvement in translational science by strengthening knowledge management. We will place emphasis on providing solutions for achieving Universal Health Coverage by increasing focus and resource allocation.

Throughout this plan, we have put in place strategies that aim at repositioning KEMRI as the premier health research institution in the region. The fundamental issues addressed in the plan are National Research Priorities and being responsive to citizen health priorities which are properly captured in our slogan “In Search of Better Health”

We have renewed our efforts and rededicated ourselves to re-engineering our systems and processes to exceed the expectations of the people of Kenya, our collaborators and stakeholders.

To this end, I welcome all the staff, partners and stakeholders to cooperate and provide support in delivering the desired objectives aimed at realizing our vision “To be a Leading Centre of Excellence in Research for Human Health”.

Dr. Naphtali Agata

Chairman, Board of Management

Kenya Medical Research Institute
FOREWORD

This Strategic Plan will guide KEMRI’s work over the next five years covering the period 2018 to 2023 and captures five key priority thematic areas that will position the Institute on a global platform and enhance our reputation. For each thematic area a strategic objective has been identified as set out below:

1. To strengthen investment in Health Research and Innovation
2. To strengthen corporate governance by transforming and reengineering business processes in order to achieve efficiency and effectiveness in health research and service delivery
3. To upgrade Research Infrastructure and Automate processes
4. To attain degree awarding status for KEMRI Graduate School of Health Sciences
5. To enhance and diversify resource mobilization as a step towards financial sustainability

The development of this Strategic Plan was heavily informed by the United Nations 2030 Agenda for Sustainable Development Goals (SDGs) and Kenya’s development blueprint Vision 2030. Its timing is opportune because promulgation of the new Kenya constitution in 2010 and the subsequent establishment of devolved county governments led to dramatic change in the governance landscape of the country. The devolution of the country’s governance has undoubtedly led to an increase in the diversity of health research priorities and expectations from the County Governments. This Plan thus advances increased collaboration with national and County Governments to positively impact the development of the health sector.

The preparation of this Strategic Plan required a significant level of reflection and consultation, not only on the challenges facing KEMRI but also those facing the health sector. Thus the Plan sets out ambitious priorities, representing the needs of not just KEMRI, but also those of the wider stakeholder community. Achieving these priorities will involve a significant level of organizational management change and flexibility to proactively respond to the emerging challenges and health research priorities. The Plan also offers opportunities to embrace the use of modern technology to improve and strengthen research and administrative structures.

In addition to ensuring the provision of a robust national health research service, this Plan looks beyond the current remit of KEMRI by proposing completion of the development of a KEMRI Bill and its enactment so as to secure the existence of the institution, and support broadening of its portfolio.

I would like to thank all stakeholders for their contribution to the development of this Strategic Plan. We believe it has struck the right balance in maintaining what we do well and responding to future needs. I commend all the staff of KEMRI for their continued efforts, dedication and commitment to maintaining and advancing KEMRI as the premier National Health Research Institute.

Prof. Yeri Kombe
Director General & Chief Executive Officer
Kenya Medical Research Institute
CHAPTER ONE: INTRODUCTION
1.1. Background
The Kenya Medical Research Institute (KEMRI) is a State Corporation established in 1979 under the Science and Technology (Repealed) Act, Cap 250 Laws of Kenya and as currently established and accredited to continue to operate as such under the Science, Technology and Innovation Act, 2013 as the national body responsible for carrying out research for human health in Kenya. The mandate of KEMRI as aligned with the Health Act 2017 is as follows:

a) To carry out research in human health;

b) To cooperate with other organizations and institutions of higher learning on matters of relevant research and training;

c) To liaise with other relevant bodies within and outside Kenya carrying out research and related activities;

d) To disseminate and translate research findings for evidence based policy formulation and implementation;

e) To cooperate with the Ministries responsible for Health, the National Commission for Science, Technology and Innovation (NACOSTI) and the National Health Research Committee on matters pertaining to research policy and priorities; and

f) To do all such things as appear necessary, desirable or expedient to carry out its functions.

1.2. History, Geographical location and spread of KEMRI Centres
Upon its creation, KEMRI immediately incorporated and consolidated research activities of the defunct East African Medical Council including the naming of the various units and centres. The naming of KEMRI Centres emerged based on the need for a focus on specific health conditions as well as type of research to be conducted. This has evolved based on the need to realign and harmonize with National and International trends in health research as well as with programs of major collaborative partners.

Currently, KEMRI has twelve (12) Research Centres with state of the art research facilities and laboratories spread throughout Kenya. Although the Centres have evolved to encompass emerging research needs, they were created based on research areas of expertise. Over the years, KEMRI has developed a critical mass of highly skilled scientists and technical staff to enable it conduct competitive research ranking it as a leading center of excellence in research for health in Africa and globally.

Within the Health Sector, KEMRI is responsible for providing leadership in health research & development, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options and monitoring and assessing health trends as well as dealing with trans-boundary threats and disease outbreaks.

The Institute further continues to be responsive to the challenges of emerging and re-emerging diseases, including Non-Communicable Diseases (NCDs), communicable conditions and bio-terrorism. However, to maintain this response, the Institute must attract and retain highly competitive research and technical workforce; a big challenge to the Institute.

Geographic Location & Spread of KEMRI Centres is as shown in Table 1.
Table 1: Research Centres of KEMRI

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Acronym</th>
<th>Location</th>
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<tbody>
<tr>
<td>1</td>
<td>Centre for Biotechnology Research and Development</td>
<td>CBRD</td>
<td>Nairobi</td>
</tr>
<tr>
<td>2</td>
<td>Centre for Clinical Research</td>
<td>CCR</td>
<td>Nairobi</td>
</tr>
<tr>
<td>3</td>
<td>Centre for Global Health Research</td>
<td>CGHR</td>
<td>Kisumu</td>
</tr>
<tr>
<td>4</td>
<td>Centre for Geographic Medicine Research - Coast</td>
<td>CGMR-C</td>
<td>Kilifi</td>
</tr>
<tr>
<td>5</td>
<td>Centre for Infectious &amp; Parasitic Diseases Control Research</td>
<td>CIPDCR</td>
<td>Busia</td>
</tr>
<tr>
<td>6</td>
<td>Centre for Microbiology Research</td>
<td>CMR</td>
<td>Nairobi</td>
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<td>7</td>
<td>Centre for Public Health Research</td>
<td>CPHR</td>
<td>Nairobi</td>
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<td>11</td>
<td>Centre for Virus Research</td>
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<td>Nairobi</td>
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In addition to the above Centres, KEMRI established a Graduate School of Health Research. The school offers courses which are research oriented and geared towards solving national, regional and global health problems. By combining the academic, research, and training capacity available in KEMRI, the Graduate School provides a very fertile academic and research environment for young scientists in particular, to carry out research on the current pressing health issues in the world today.

Other field stations and Research Units established in collaboration with various partners are located in Kericho, Kombewa, Kwale, Salgaa, Mwea, Kirinyaga, Msambweni, Malindi, Mtwapa and Taita Taveta.

The Institute’s activities are further organized into three (3) main thematic areas namely; Research & Development, Capacity Building & Training, and Products & Services delivery as shown in Figure 1.
1.3. Research for human health

Research activities are organized, coordinated and conducted under six Research Programmes as presented in Table 2 below.

Table 2: Institute Research Programmes

<table>
<thead>
<tr>
<th>No</th>
<th>Programme Name</th>
<th>Objective</th>
<th>Flagship projects/areas</th>
</tr>
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</table>
| 1  | Biotechnology                              | To promote, harness and apply biotechnology for the discovery and development of tools and strategies for use in medicine and health care. | - Vaccine development  
- Diagnostics  
- Genetic engineering  
- Bioinformatics |
| 2  | Traditional Medicine & Drug Development   | To identify and develop safe and effective traditional/alternative medicines and drugs for use against human diseases | - Traditional medicine  
- Conventional medicine  
- Alternative Medicine |
<table>
<thead>
<tr>
<th>No</th>
<th>Programme Name</th>
<th>Objective</th>
<th>Flagship projects/areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Infectious and Parasitic diseases</td>
<td>To conduct research aimed at developing tools and technologies for reduction of disease burden due to infectious and parasitic agents</td>
<td>- Bacterial, fungal &amp; Viral diseases                                                         &lt;br&gt; - Parasitic diseases &lt;br&gt; - HIV/AIDS, TB &amp; Malaria &lt;br&gt; - Neglected tropical diseases</td>
</tr>
<tr>
<td>4</td>
<td>Public health and Health Systems</td>
<td>To conduct multidisciplinary epidemiology, biostatistical, environmental, occupational, nutritional, social, dental population and health systems and policy research.</td>
<td>- Epidemiology &lt;br&gt; - Behavioral &amp; Social Sciences &lt;br&gt; - Nutrition &lt;br&gt; - Environmental /occupational health &lt;br&gt; - Oral health &lt;br&gt; - Health care financing, HRD, information, governance and leadership, service delivery</td>
</tr>
<tr>
<td>5</td>
<td>Non communicable diseases</td>
<td>To conduct basic, clinical, operational, implementation and applied research in all matters related to non-communicable diseases</td>
<td>- Life styles diseases- Obesity, diabetes, hypertension, drug and substance abuse, Cardiovascular &lt;br&gt; - Cancers (Breast, Cervix, prostate, throat, stomach, ovaries and skin) &lt;br&gt; - Road traffic accidents, Domestic/Occupational injuries &lt;br&gt; - Mental Health</td>
</tr>
<tr>
<td>6</td>
<td>Sexual, Reproductive, Adolescent and child health</td>
<td>To conduct basic, clinical, operational, implementation and applied research in all matters related to Sexual, Reproductive and Child health</td>
<td>- Maternal health &lt;br&gt; - Child health &lt;br&gt; - Adolescent health &lt;br&gt; - STIs &lt;br&gt; - Gender Based Violence (GBV) &lt;br&gt; - Infertility &lt;br&gt; - Sexual dysfunction &lt;br&gt; - Family planning &lt;br&gt; - Harmful traditional practices &lt;br&gt; - Aging and sexual and reproductive health &lt;br&gt; - Gender &amp; human rights</td>
</tr>
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1.4. Research for human health in the devolved system of Government
In contributing towards realization of Equitable, Affordable and Quality Health Care of the Highest Standard as enshrined in the Constitution of Kenya 2010 and the Country’s blue print, Vision 2030, KEMRI has developed a comprehensive framework, under
which the Institute will carry out research, capacity building, innovation and service delivery in the country’s forty-seven Counties. The framework provides seven clusters which have begun to play a pivotal role in planning and implementation of research projects and programmes which will translate science to policy formulation, facilitate training and expansion of best practices for service delivery.

Through the clusters, KEMRI will establish partnerships and collaborations with both the National and County Governments to address priority local health research agendas and where necessary establish new Research Centres, Units or Stations. The coordinating stations for the clusters will work with County and National Governments on health issues that are specific and relevant to the County Governments.

1.5. The National Strategic Focus for Health Research and Development
In setting up strategies for human health research, it is mandatory that international standards for improvements are observed. This ensures quality research that is approached from a global perspective. The strategy should not only strengthen human health research but also involve improved research standards and strengthened capacity. Health policies and practices should be informed by the best research evidence. Investments in health research are generally not sufficient and that traditionally, research is often not focused on priority health problems. At the same time research often does not reflect best practices in terms of ethical review and public accountability. Therefore, in this strategy, it is proposed that human health research should be organized and managed in a systematic and comprehensive manner, and efforts to improve health should be based on evidence from research. The strategy addresses the need for integration, networking with stakeholders/partners to produce evidence and tools for improving health.

This is premised on the fact that complex and emerging health challenges demand a proactive and innovative approach. Kenya has several issues that influence the burden of disease. These include, but not limited to human resource capacity, skills, and limited financial resources among others. This leads to dependence on development assistance. In view of this, the Institute will lobby National and County governments and other local entities with the aim to increase funding for research.

The aims of this strategy are geared towards promotion of health, prevention/management of diseases for improved health security. In this respect, KEMRI will work with National and County Governments as well as other partners to implement and attain the highest possible level of Universal Health Coverage through provision of evidence based solutions. The guiding principles are; quality, impact and inclusiveness.

In doing this, five interrelated goals to be achieved include: Organizational structures within KEMRI to serve as reference institute mandated with human health research, Identification of priority health needs at national and county levels, capacity building to strengthen systems for health research, standards maintenance and translation of research findings to inform policy.

1.6. KEMRI’s Contribution to Kenya
KEMRI's role in the Health sector can be categorized into; conducting high quality research that informs evidence based policy, translating research into best practices, capacity building and service delivery for human health.
The Kenyan Government has committed to increase research funding through enactment of the Science Technology and Innovation Act of 2013 which provides for an allocation of up to 2% GDP to research and development. This provides an opportunity for scientific solutions directly targeting Kenya’s health agenda, as part of this allocation trickles down to fund the health research agenda.

Kenya’s vision 2030 goal for the health sector is to “provide equitable and affordable healthcare at the highest affordable standard to citizens”. The national development agenda (Chapter four of the Constitution on the Bill of rights) places a heavy responsibility on the health sector to ensure that citizens secure equitable, affordable and quality health care of the highest standard.

This responsibility is in recognition that a healthy human resource base is pivotal for enhanced national competitiveness, economic growth and development.

It is in this regard that KEMRI as the research arm of the Ministry of Health must conduct research for health that will facilitate the translation of this goal into reality by ensuring science innovates and informs practical applications that enhance human health. KEMRI has been lobbying for additional funding over and above the current GoK allocation specifically to support and expand research for human health. The funding would be both from National and County Governments’ perspective. This will enable KEMRI to fulfill its core responsibility of research and innovation in human health, capacity building and service delivery. This will also ensure that in addition to a global agenda KEMRI focuses on local research health needs and that KEMRI functions would be unhindered and would continue to operate.

1.7. KEMRI’s Contribution to Research for Health Capacity Development in Africa

Over the years, KEMRI has been in the fore-front in the region in the dissemination of research findings through the East African Health Research Commission and a change to KEMRI Annual Scientific and Health Conference (KASH) and the African Journal of Health Sciences (AJHS).

KEMRI also hosts several regional programmes for the promotion of health in Africa. These include:

- School-based Parasite Control in Africa (in collaboration with partners)
- Laboratory Training on the Control of Emerging and Re-emerging Diseases in Africa.
- Africa Regional Offices for Drugs for Neglected Diseases (DNDi)
- International Union against TB and Lung Diseases
- International Union against Cancers, Climate Change and Health.
- East Africa Public Health Laboratory Network
- Third Country Training Blood Safety/Parasitic Infections

1.8. KEMRI’s contribution to Sustainable Development Goals (SDGs)

The UN General Assembly of 25th September 2015 adopted the 2030 Development Agenda titled: “Transforming our World”. The 2030 Agenda for Sustainable Development
Goals (SDGs) outlines seventeen (17) goals associated with 169 targets. The production of knowledge for decision making is instrumental in progressively realizing the Right to “highest attainable standard of physical and mental health” as espoused in SDG 3- Good health and well-being. The norms and guidelines for global health are detailed in SDG 3 targets: achieving Universal Health Care, through health systems that are adequately resourced and staffed, and guarantees protection against financial risk, access to quality essential health care services, sexual and reproductive health care, and essential medicines for all. Among the thirteen targets identified for implementation in this goal are:

1. Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

2. Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3. Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

1.9. Achievements/ Impact and Outcome of health research
These achievements have not only created economic impact in terms of reduced health care expenditure but also been key in attainment of the Millennium Development Goals (MDGs), these being key in sustaining a healthy and productive workforce critical in propelling the Nation into its new industrializing status. Some of the key achievements include:

i. Its role in advising the Ministry of Health on the rational use of anti-malarial drugs, and changes in national malaria treatment policy due to anti-malarial resistance.

ii. The development of a national disease surveillance and rapid response capacity for major disease outbreaks. It is this capacity that has enabled the nation to respond quickly and effectively to yellow fever, rift valley fever and viral haemorrhagic fever outbreaks in Kenya. It is also this capacity that has reduced the risk of outbreaks for other catastrophic diseases such as the Ebola, Marburg, SARs, Swine flu, HINI, Anthrax and others.

iii. Development of treatment regimens that have substantially reduced the treatment period for leprosy, tuberculosis and leishmaniasis (kalazar).

iv. The development and commercialization of diagnostic kits for HIV 1 and 2 and viral hepatitis.

v. Development of HIV/AIDS prevention in the work-place programme that involves comprehensive training on HIV/AIDS awareness information, education, and
communication.

vi. Advisory role on the rationalization and regulation of traditional medical practice in the modern health care delivery system in Kenya. This has also led to the identification of potentially useful traditional medicines for asthma, epilepsy, diabetes, hypertension and malaria that are in various stages of commercialization.

vii. Establishment of training programmes for disease control personnel in the Eastern and Southern African region focusing on blood safety and control of parasitic diseases, through the support of the Japanese Government.

viii. Establishment of a collaboration with the Jomo Kenyatta University of Agriculture and Technology (JAU), to train experts in infectious and tropical diseases at graduate level (Masters and PhD) through the KEMRI Graduate School.

ix. Development of modern infrastructure, with highly sophisticated laboratories spread across the Country, for a wide range of health research investigations.

x. Promotion of dissemination and exchange of health research information through the KEMRI Annual Scientific and Health Conference (KASH) and the African Journal of Health Sciences (AJHS), both hosted and managed within the Institute.


xii. Established the KEMRI Annual Scientific and Health conference (KASH) that is held annually to disseminate research findings and show-case research in the Institute, the Counties and globally.

xiii. Obtained International recognition in the promotion of global health and designation as a World Health Organization (WHO) collaborating centre for HIV/AIDS, polio immunization, viral haemorrhagic fevers, leishmaniasis, leprosy and antimicrobial drug resistance. The Institute also, hosts several other regional and global health research initiatives.

xiv. Established the first routine testing and confirmation laboratory for HIV in Kenya in 1989 that later evolved to Voluntary counselling and testing units (VCT) across the country.

xv. Initiated new analytical techniques including conduct of DNA testing for paternity and forensic purposes.

xvi. Successfully conducted Ebola clinical vaccine trials that have demonstrated safety of the vaccine and potential for use.

xvii. Successfully conducted pneumococcal vaccine trials that resulted in its introduction in the market in Kenya and beyond. More than the market. It is introduction into KEPI that is key.

xviii. A key partner for the Ministry of Health for conducting National Health surveys including Kenya Aids Indicator Survey (KAIS), Kenya National Micronutrient Survey (KNMS) and Kenya Demographic Health Surveys (KDHS) among others.

xix. Engaging with the County Governments to conduct food handling certifications for the hospitality industries to promote local and international health safety.
xx. Grant applications for local and international funding that has generated Kes 6.1B as at 2014 to fund research projects to facilitate attainment of the highest standards of health for the people of Kenya.

xxi. Piloted the first use of antiretroviral treatment against HIV in Kenya in 1996

xxii. PrEP was the No.1 scientific discovery of 2011 and KEMRI was engaged. HPTN 052 – Treatment for prevention of HIV also a landmark and KEMRI engaged.

1.10. Financial Resources

KEMRI is involved in various research activities for human health. In the Financial Year 2016/17 annual donor funded grants generated through proposal grant writing by KEMRI was KES 4,649,212,265, the funding from the National Treasury was KES 2,030,412,265 while internally generated income was KES 361,446,861.

Figure 2: Financial trends for 2013-2017

1.11. KEMRI’s Human Resource Establishment

The Institute recognizes that its major strength is in its human resources. The Institute is aware that attracting, retaining and motivating highly talented employees is critical and essential for identifying problems to be researched, developing appropriate research and development strategies, implementation of research and development programmes/projects, and providing the necessary technical and administrative support services.

The Institute is currently facing a critical shortage of staff and brain drain particularly in the scientific, technical and professional cadres. This need is compounded by the Institute expanded activities and various staffing gaps which have arisen out of lack of non-declaration of vacant posts, delays in filling posts and a large number of staff who are expected to retire on age grounds within the next few years. The institute also supports a disproportionately high proportion of support staff.
Within the current strategic plan the Institute intends to build capacity and provide an enabling environment to enhance productivity and ensure implementation of the Institute’s long term vision and strategic objectives. Table 3 below shows the staff skill mix and numbers.

Table 3: Summary of GoK and Project Staff Skill Mix

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Permanent</th>
<th>Contract</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Staff</td>
<td>218</td>
<td>1088</td>
<td>1306</td>
</tr>
<tr>
<td>Technical staff</td>
<td>254</td>
<td>1052</td>
<td>1306</td>
</tr>
<tr>
<td>Support staff</td>
<td>443</td>
<td>463</td>
<td>906</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>915</strong></td>
<td><strong>2,603</strong></td>
<td><strong>3,518</strong></td>
</tr>
</tbody>
</table>

1.12. Stakeholders, Partners and Collaborators
KEMRI has developed a network of National and International networks, partnerships and collaborations as stated in its mandate to achieve its objectives. The following are some of the major development partners, national and international stakeholders/collaborators.

1.12.1. Local Collaborators/Stakeholders
i. Ministry of Health
ii. NACOSTI
iii. Other Government of Kenya ministries and departments
iv. All 47 County Governments
v. National and locally based international research and development institutions and organizations
vi. National Referral, other Hospitals and Health facilities
vii. Universities and Tertiary Institutions

1.12.2. Regional Collaborators
viii. East African Health Research Commission (BURUNDI)
ix. Noguchi Memorial Institute of Medical Research (Ghana)
x. National Institute of Medical Research (Tanzania)
xi. Virus Research Institute (Uganda)
xii. Makerere University Medical School (Uganda)
xiii. Medical Research Council of South Africa
xiv. Suez Canal University (Egypt)
xv. Eastern, Central and Southern Africa Health Community (ECSA) (Tanzania)
xvi. East African Community (EAC) (Tanzania)
1.12.3. International collaborators

xvii. World Health Organization (WHO)
xviii. World Association of Industrial and Technological Research Organizations (WAITRO)

xix. Japan International Cooperation Agency (JICA) - JAPAN
xx. United States Agency for International Development (USAID) - USA

xxi. Centres for Diseases Control and Prevention (USA)
xxii. Walter Reed Army Institute of Medical Research (USA)
xxiii. Wellcome Trust/Oxford University (UK)
xxiv. International Development Research Centre (IDRC) - Canada

xxv. Royal Tropical Institute (Netherlands)
xxvi. University of California, San Francisco (USA)
xxvii. University of Washington, Seattle (USA)

xxviii. Case Western University (USA)
xxix. University of New Mexico (USA)
xxx. University of Georgia (USA)
xxxi. Nagasaki University (Japan)

xxxii. London School of Hygiene and Tropical Medicine (UK)
xxxiii. Kanazawa University (Japan)
xxxiv. Shiga University of Medical Science (SUMS) - Japan

xxxv. United Nations University (Canada)
xxxvi. Imperial College London (UK)

xxxvii. Liverpool School of Tropical Medicine (UK)
xxxviii. Emory University (USA)

xxxix. University of Texas Medical Center Board (USA)

x. University of California Berkeley (USA)
xii. University of Maryland Baltimore (USA)
xiii. Washington State University (USA)
xiv. Global health innovations (USA)
xlv. Kansas university medical center (USA)
xlv. University of Burgen (Norway)

1.13. The Rationale for the Strategic Plan
Since inception in 1979, the Kenya Medical Research Institute`s mandate has been to carry out research in human health in Kenya and globally. As the needs and expectations of its stake holders have grown, so too have the organizational capacities and expectations.

Increasing demand for services dictates that KEMRI reaffirms its mission to address fundamental questions such as, what objectives should be the priority to make the
best use of available skills and resources and the kind of organizational structure that best allows the fulfillment of its mission.

The Institute has put forth this strategic plan as a successor to the strategic plan 2013-17 to help define what KEMRI is, its strategic direction and its future growth as an organization. In framing this strategic plan, the Institute looks at who it is as a function, what its historical roles have been, as well as what present day expectations are. KEMRI identifies its primary programmatic initiatives and how it anticipates they will evolve. It reviews the characteristics and needs of the organization and examines ways to structure itself to better serve its stakeholders.

Finally, the Strategic Plan identifies key aspects of the Institute to be enhanced in order to meet the increasing needs of the stakeholders (government, public and partner organizations).

1.14. Methodology
Development of KEMRI strategic plan IV was highly participatory and consultative. A technical working group was appointed to spearhead the development of the plan. The strategic plan development process involved:

a) Assessment of achievements and challenges in the implementation of strategic plan 2013-17

b) Desktop review and analysis of key documents including Sustainable Development Goals, Africa’s Agenda 2063, Kenya’s Vision 2030 and Ministry of Health Strategic Plan, among others.

c) Development of a questionnaire and data collection on priority areas to be addressed by the strategic plan

d) Carrying out Focus Group Discussions (FGDs) in all KEMRI centres to get the opinion of the staff on challenges and priorities

e) Holding focus group discussions with Heads of departments and Centre directors

f) Holding consultative meeting with stakeholders and collaborators

g) Involving the top management and the Board of management who made significant contribution to the plan.

h) Carrying out an environmental scanning through SWOT analysis

i) Reviewing organizational structure to cater for targeted expansion of research activities and ensure efficiency and effectiveness of services.
CHAPTER TWO:

SITUATION ANALYSIS
2.1. Introduction:
This chapter presents a review of key successes and challenges during the implementation of the strategic plan 2013-17. A further analysis of KEMRI’s internal and external environments has been done to understand Institutes capacity, potential, customers and business environment. Additionally, Strengths, Weaknesses, Opportunities and Threats (SWOT) have been analyzed as a precursor to development of research and operational strategic objectives in the strategic plan.

2.1.1. Key Achievements of Strategic Plan 2013-17
During the Strategic Plan period, KEMRI successfully implemented 60% of the planned activities. These achievements are listed below.

2.1.2. Research and Innovation
i. The Institute developed nine hundred and seventy (970) new research proposals covering national health research priority areas with the aim of providing evidence based research data to inform policy formulation, prioritization of interventions, allocation of resources and revision of national treatment guidelines.

ii. One thousand one hundred and one (1,101) publications were done in peer reviewed journals. These contributed to increased scientific knowledge in addition to providing a repository of scientific reference material for formulation of evidence based policies and treatment guidelines for disease management and training.

iii. The Institutes' scientists also developed a total of 239 scientific abstracts presented in national and international conferences and scientific forums.

iv. Traditional Medicines and Natural Products: Innovation of using pyrethrum to control jiggers and sun flies; Herpes treatment product; Screening herbal medicines for cancer treatment; Enrichment of infant/children’s food using pawpaw seeds to control helminths;

v. Research findings lead to development of PReP Policy for HIV prevention

vi. Specialized service: Viral Load, 75% of all National PCR- Early Infant Diagnosis of HIV, HIV/Rapid Test and DNA are perform

vii. Set up of National reference TB laboratory in Kisumu

viii. Developed and manages Demographic Health Surveillance Systems (DHSS) targeting hospitalization, outpatient, births/deaths and priority diseases within Nyanza (Siaya, Kombewa, Mbita) and Coast region.

ix. Upgraded select laboratories to P3 in Nairobi and Kilifi

x. Three studies conducted to reduce TB treatment from 6 to 4 months that showed high efficacy

xi. Dissemination Scientific Conferences: Annual conferences include KASH, NCD; Participated in all professional scientific forums.

xii. Support to select County Referral hospitals with state of the art facilities to manage paediatric health needs.

xiii. Malaria vaccine phase 3 trials conducted with a significant efficacy level. This vaccine has subsequently been approved by WHO for rollout.

xv. Other clinical trials conducted during the period include; Malaria, TB, Sickle cell

xvi. Outbreak response: Rapid response unit established and spearheaded response to cholera, flu, chikungunya, dengue and yellow fever outbreaks

xvii. Evaluation of TB culture diagnosis (MIGIT)

xviii. Eight Laboratories accredited and certified as follows: WHO accreditation (CVR polio lab), Microbiology & Clinical Research Labs (CAP) (KEMRI/WRP Kericho), ISO 15189:2012 (Medical laboratory (CVR, CGHR-TB/HVR/DLSP)), ISO 9001:2015 (QMS Requirements KEMRI), ISO 17043 (Proficiency Testing (Production), ISO 13485 (Medical devices (Production)). KEMRI is also pursuing ISO 151189:2012 Medical Laboratory certification for CCR, ESACIPAC, CVR HIV lab, KEMRI/RTCP-FACES, CGHR Malaria.

xix. KEMRI participated in the development policy briefs, guidelines. Some of the key guidelines include:

a) Kenya Aids Indicator Surveys

b) Kenya Health Policy


d) Manual for conducting a gender analysis for microbicide use

e) Manual for engaging male partners in women’s microbicide use

f) National School-Based Deworming Program Year 2

g) Conducting sexual and reproductive health research with adolescents in Kenya

h) Guidelines for Conducting adolescent HIV sexual and reproductive health research in Kenya, May 2015

i) Malaria vaccine guideline

j) Ebola vaccine guidelines

k) Kenya national micronutrient survey

l) East African Community Knowledge Management on Reproductive Health Policy 2017

m) Policy Guide on EAC regarding emergency resistance of enteric to third line antibiotics

xx. KEMRI collaborated with a total of 66 research and development partners in development of research activities of public health concern.

xxi. The Institute developed the KEMRI Bill. The Bill aims to consolidate the various legislations that define the operations of KEMRI. The Bill will enhance the coordination, conduct, regulation and oversight of research for human health.

xxii. Leadership Skills and grants management trainings through Kenya School of Government (KSG), university of Washington, GCP, Grants, SLDP
2.1.3. **Product Development and Service Delivery**
   i. The Institute developed and sold a total of 169,835 diagnostic kits and other products. The products include: Culture Media (plates), Culture Media (Tubes), KEM-rub, TBcide, KEMTAQ, Safi Kem (Hand wash), Sheep blood and Distilled Water
   
   ii. The institute provided 12,206 clinical services to clients seeking services at KEMRI clinics. The Institute also conducted a total of 508,645 laboratory tests to inform treatment and intervention choices. These were also conducted to support approved research and disease surveillance activities. Specialized services include Viral Load, PCR- Early Infant Diagnosis of HIV, HIV/Rapid Test and DNA diagnostics.
   
   iii. Development of Rift Valley Fever testing kit in collaboration with Science and Technology Research Partnership for Sustainable Development (SATREPS) Program.

2.1.4. **KEMRI Graduate School**
   i. Over the specified period, the Institute continued to offer graduate training programmes under the KEMRI Graduate school. The school graduated 262 MSc. and 70 PhD students during the period in various disciplines.
   
   ii. The school also offered short term courses to 1,788 students over the Strategic Plan period.

2.1.5. **Research under Devolution**
   i. The Institute established 7 county clusters to ease coordination of research activities across all 47 counties. It is through these clusters that health research needs assessment was conducted in 18 counties to identify priority research needs
   
   ii. KEMRI supported a total of 21 health promotional activities during the strategic plan period. Key activities included; KEMRI/Nairobi City County/ Kenya Women/Children’s Wellness Centre (KWCWC) medical camp, Nakuru Influenza Outbreak Response, Hepatitis Campaign and Ol Kalau, Breast Cancer Awareness

2.1.6. **Financial Sustainability**
   i. The Institute internally generated ksh 917,204,000 for the period under review. This was generated from student fees, food handlers programme, rent and overheads.
   
   ii. The Institute successfully raised external research grants amounting to Ksh19,231,551,000.

2.1.7. **Management Systems, Processes and Human Resource Capacity**
   i. Turnaround time for research approvals was reduced from six months to two months (expedited approvals – 5 days)
   
   ii. Benchmarking was conducted for research grants management and best practices adopted
2.1.8. Physical, ICT and Research Infrastructure

i. Centre of Excellence established in collaboration with African Network for Drug and Diagnostic Innovation (ANDI) for development of schistosomiasis diagnostic test kit.

ii. The institute secured funding from SANDIA for the renovation of research laboratories in Centre for Virus Research (CVR), Centre for Biotechnology Research and Development (CBRD) and Centre for Traditional Medicine & Drugs Research (CTMDR). Additionally, the funding arrangement included Construction on of state of the art sample management repository.

iii. ICT: Bandwidth upgrade, Increased

iv. The following infrastructure was also upgraded during the period
   a) Renovation of laboratories, offices and staff houses in KEMRI Centre Busia.
   b) Acquisition of molecular TB diagnosis (gene expert, HAIN Life)
   c) Automated TB culture diagnosis (MIGIT)
   d) Early Infant Diagnostic equipment
   e) Human Identification (DNA testing)
   f) High Performance Liquid Chromatography
   g) Renovation of staff houses in KEMRI- Kisian station
   h) Renovation of staff clinic at KEMRI HQ
   i) Construction of KEMRI-Kwale perimeter/ boundary wall
   j) Construction of KEMRI-Taveta field station boundary wall
   k) Construction of KEMRI- Mbagathi Road staff quarters parking and boundary wall
   l) Upgraded ICT infrastructure

2.2. SWOT Analysis

An analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) was carried out to identify the internal and external factors that might affect KEMRI’s future performance. SWOT analysis was done as a precursor to development of research and operational strategic objectives and goals in the strategic plan.

2.2.1. Strengths

Evaluating KEMRI’s strengths was intended to determine how to allocate resources in a manner that will result in the highest possible outcomes in health research agenda in order for the institute to maintain its competitive edge. The strengths were examined by functional area, as follows:
Table 4: Strengths

<table>
<thead>
<tr>
<th>No</th>
<th>Strengths</th>
<th>Strategic Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>High caliber of trained researchers (HR)</td>
<td>• Enhanced ability to undertake innovative research.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• International recognition of research findings</td>
</tr>
<tr>
<td>2.</td>
<td>Structured research programmes (S)</td>
<td>• Effective coordination of research effort and output</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Research databases for programme areas</td>
</tr>
<tr>
<td>3.</td>
<td>State of the art laboratories – (T)</td>
<td>• Capacities for conducting complex/ advanced – high throughput research experiments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High quality specialized diagnostic services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reference Centres of excellence</td>
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<tr>
<td>4.</td>
<td>Structured research dissemination platforms (S)</td>
<td>• A platform of reliable, credible user friendly high quality research products</td>
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<tr>
<td></td>
<td></td>
<td>• A citizen participation and accountability framework</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Interactive platform for researchers, academia and policy makers</td>
</tr>
<tr>
<td>5.</td>
<td>Research stations in different parts of the country (S)</td>
<td>• Decentralized structures with specific local priority research focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Spatially diversified operational opportunities for health research</td>
</tr>
<tr>
<td>6.</td>
<td>Research translation and product development (S)</td>
<td>• Locally applicable and affordable health care solutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Revenue generation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Intellectual property</td>
</tr>
<tr>
<td>7.</td>
<td>Traditional medicine &amp; natural products (S)</td>
<td>• Locally applicable and affordable alternative medicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Biomedical testing and exploration of traditional remedies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• National repository of indigenous remedies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regulatory framework for the unregulated herbal industry</td>
</tr>
<tr>
<td>8.</td>
<td>Partners/ collaborators (local/ international) (P)</td>
<td>• Increased research scope and geographic coverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Technology transfer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased local and global visibility</td>
</tr>
<tr>
<td>9.</td>
<td>Animal house (S)</td>
<td>• Unlimited research possibilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Facilitates product development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Phase II clinical research trials</td>
</tr>
</tbody>
</table>
10. Capacity building and training (S)  • Development of critical human resource in health research  • Continuous professional and technical knowhow for sustained health research excellence

11. Infrastructure to support conduct of research (S)  • Quality and credible research output  • Improved ability to respond to disease outbreaks and emergencies

12. Government patronage (L)  • Continued exchequer funding  • Enabling legal framework

13. Brand name  • Positive image and publicity  • Increased network of collaborators and partners  • Demonstrated value for public revenue

Key: HR – Human resource; L – legal; S – Systems; P – Processes; T - technology

**Key considerations for repositioning**

1. KEMRI’s main strengths are seen to be clustered around research for health and infrastructure.

2. KEMRI’s strengths are also closely based on good relationships with government, partners and stakeholders.

**2.2.2. Weaknesses**

The Institute identified the critical areas for improvement in order for it to maintain leadership in research for human health. For each weakness, remedies need to be provided in order to turn these into future strengths. The following table presents weaknesses identified and their strategic implications.

**Table 5: Weakness**

<table>
<thead>
<tr>
<th>No</th>
<th>Weaknesses</th>
<th>Strategic implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Inadequate Funding (S, P)</td>
<td>• Inability to fully realize mandate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strained infrastructure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Dependence on donor funding</td>
</tr>
<tr>
<td>2.</td>
<td>Low number of scientific staff (HR, S)</td>
<td>• Inability to fully implement research priorities</td>
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<tr>
<td></td>
<td></td>
<td>• Low productivity research outputs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Inability to optimally realize KEMRI’s mandate</td>
</tr>
<tr>
<td>3.</td>
<td>Aging research infrastructure</td>
<td>• Increased cost of repairs and maintenance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased risk to employees</td>
</tr>
<tr>
<td>No</td>
<td>Weaknesses</td>
<td>Strategic implications</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4.</td>
<td>Acting appointments in key leadership positions (HR)</td>
<td>• Institutional indecisiveness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Delayed implementation of key institutional priorities</td>
</tr>
<tr>
<td>5.</td>
<td>High turnover of senior management (P)</td>
<td>• Organizational instability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Loss of institutional memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Frequent midstream changes in priorities</td>
</tr>
<tr>
<td>6.</td>
<td>Weak coordination and administrative systems (P)</td>
<td>• Delayed turnaround time in finance, procurement and other administrative processes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Weak implementation of policy documents</td>
</tr>
<tr>
<td>7.</td>
<td>Inadequate ICT infrastructure (S)</td>
<td>• Inadequate data and information security</td>
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<tr>
<td></td>
<td></td>
<td>• Long turnaround time for processes</td>
</tr>
<tr>
<td>8.</td>
<td>Weak legal framework</td>
<td>• Weak coordination of research and uptake of research findings</td>
</tr>
</tbody>
</table>

*Key: HR – human resource; L – legal; S – systems; P - Processes*

**Key considerations for repositioning**

1. KEMRI now needs to leverage its strengths to address some of the identified weaknesses during this strategic planning period. This will require reengineering of institutional business processes.

2. KEMRI’s current financial prospects are pegged heavily on GoK’s overall strategy. From past experience, Government funding growth has remained marginal from year to year. KEMRI must make do with this limited funding by ensuring prudent application of resources to address national priority research agenda.

3. The continued relevance of KEMRI is heavily dependent on its ability to achieve its mandates. KEMRI will need to address the weak legislative foundation during the plan period in order to address emerging challenges in conduct of research within the country.

4. Overall governance challenges are not uncommon in public institutions and KEMRI is no exception. For instance, KEMRI has continued to develop policies and strategies whose implementation has not been optimal. The institute will need to review its administrative structure in order to enhance coordination and ensure effective service delivery.

5. KEMRI has a unique relationship with local and international collaborators which has continued to support research albeit with challenges in coordination. Going forward, KEMRI will need to address specific weaknesses in how the relationships with collaborators are managed through implementation of policies to guide partnerships and collaborations and over dependence in donor funding.

**2.2.3. Opportunities**

Growth in health research requires seeking out new opportunities, including new potential collaborations and funding opportunities, harnessing technology, product commercialization and distribution, developing new categories of products and
services and research expansion. In conducting SWOT analysis, KEMRI identified emerging opportunities and developed strategies aimed at harnessing these opportunities. The following table summarizes the identified opportunities and their strategic implications. The considerations for repositioning driven by these opportunities are discussed.

Table 6: Opportunities

<table>
<thead>
<tr>
<th>NO</th>
<th>Opportunities</th>
<th>Strategic Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Government (National and County) policies and Presidential directives (UHC, MES)</td>
<td>• Increased research funding and training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved research infrastructure</td>
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<tr>
<td></td>
<td></td>
<td>• Increased utilization of research output</td>
</tr>
<tr>
<td>2.</td>
<td>Research funding from GoK – NRF (P)</td>
<td>• Public ownership on increased research demand</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Credibility at national and international level</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Self-sustenance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Focus on local unique and endemic health challenges from exchequer funding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Intellectual Property ownership</td>
</tr>
<tr>
<td>3.</td>
<td>Adoption of cutting edge research technology and process (T)</td>
<td>• Producing timely high quality and relevant research evidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved processes and turnaround times</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Training and capacity development on latest technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved competitiveness and innovations</td>
</tr>
<tr>
<td>4.</td>
<td>Global health information access (T)</td>
<td>• Rapid appraisal and use of best global research evidence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Highest standards of conduct of research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Improved and timely decision making</td>
</tr>
<tr>
<td>5.</td>
<td>National, Regional and International engagements (EC)</td>
<td>• Access to wider research population</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Shared priorities and common interests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Synergy</td>
</tr>
<tr>
<td>6.</td>
<td>Emerging and re-emerging diseases</td>
<td>• Increased focus on emerging and re-emerging diseases Nationally and Globally</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased research and training opportunities</td>
</tr>
<tr>
<td>7.</td>
<td>Non-Communicable Diseases</td>
<td>• Research on non-communicable diseases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased research and training opportunities</td>
</tr>
<tr>
<td>NO</td>
<td>Opportunities</td>
<td>Strategic Implication</td>
</tr>
<tr>
<td>----</td>
<td>---------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>8.</td>
<td>Devolution / decentralization (P)</td>
<td>• Identification of local health research priorities&lt;br&gt;• Diversified multi-stakeholder participation for health research&lt;br&gt;• Timely response to emergencies&lt;br&gt;• Local capacity development&lt;br&gt;• Local community awareness and participation&lt;br&gt;• Improved access to services</td>
</tr>
<tr>
<td>9.</td>
<td>Shortage of trained biomedical researchers (T,S)</td>
<td>• Expanded training infrastructure&lt;br&gt;• Increased capacity of research staff and health care workers&lt;br&gt;• Accessible affordable in-house resource for targeted capacity development&lt;br&gt;• Increased collaborative and partnership scope</td>
</tr>
<tr>
<td>10.</td>
<td>KEMRI enterprise (EC)</td>
<td>• Financial self-sustainability&lt;br&gt;• Local production and national development</td>
</tr>
<tr>
<td>11.</td>
<td>Public good will (S)</td>
<td>• Improved organizational image&lt;br&gt;• Ease of doing business</td>
</tr>
<tr>
<td>12.</td>
<td>Political good will (P)</td>
<td>• Enhanced research funding&lt;br&gt;• Enhanced legal and institutional framework&lt;br&gt;• Ease of doing business</td>
</tr>
<tr>
<td>13.</td>
<td>Media (T)</td>
<td>• Enhanced visibility&lt;br&gt;• Dissemination of research findings and innovations&lt;br&gt;• Interactive interface with public, policy makers, decision makers and development partners</td>
</tr>
</tbody>
</table>

**Key considerations for repositioning**

1. Establishment of the National Research fund provides a channel through which all national research funds of up to 2% of the GDP is managed. KEMRI being a state corporation will strategically position itself in order to tap into this funding which can be channeled towards addressing priority health research needs of the Country.

2. KEMRI being the only mandated national research institution will strive to establish good relationship with the media in order to facilitate ease of communication of research findings and subsequent translation into policy.

3. Collaborations are a great opportunity for KEMRI to harness synergies to achieve its mandates. On balance, relationships with collaborators have generally been positive. Going forward, KEMRI must implement policies that allow relationships to remain mutually beneficial, productive and transparent.

4. KEMRI will need to adopt/adapt new technologies in research as well as carry out research in new emerging areas in order to maintain its status of being a regional leader in research for human health.
### 2.2.4. Threats

In analyzing external threats, KEMRI considered environmental factors that could adversely affect its performance or achievement of its goals. This ranged from existing legal framework, new and existing competitors, new technologies, political environment and economic downturns. The following table presents the identified threats.

**Table 7: Threats**

<table>
<thead>
<tr>
<th>NO</th>
<th>Threat</th>
<th>Strategic Implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Weak health research coordination and regulatory framework (L)</td>
<td>• Exposed to litigations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Exposure to unethical research practices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low credibility and scientific impact</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low research output</td>
</tr>
<tr>
<td>2.</td>
<td>Multiple state, non-state and freelance actors in health (L)</td>
<td>• Duplication of research efforts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Poor coordination of research initiatives</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Competition for research resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Community fatigue for research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Unethical research practices</td>
</tr>
<tr>
<td>3.</td>
<td>Collaborators domineering influential (L)</td>
<td>• Distorted research priorities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low image and visibility</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Loss of intellectual property</td>
</tr>
<tr>
<td>4.</td>
<td>Political interference (P)</td>
<td>• Organizational instability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Unpredictability and development partner anxiety</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Misplaced priorities</td>
</tr>
<tr>
<td>5.</td>
<td>Loss of highly skilled human resource (S)</td>
<td>• Low productivity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Loss of research projects and grants</td>
</tr>
<tr>
<td>6.</td>
<td>Social media (T)</td>
<td>• Potential for negative publicity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reversal and loss of positive image of brand name and value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Misreporting/misrepresentation on research findings</td>
</tr>
<tr>
<td>7.</td>
<td>Risk of Bioterrorism (S)</td>
<td>• Risk of loss of strategic partners</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Increased insurance premiums</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Demand for awareness and counter mechanisms</td>
</tr>
</tbody>
</table>

**Key considerations for repositioning**

1. The current research for health environment has multiple state, non-state and freelance actors and is fairly unregulated. KEMRI can excel in this environment by fully implementing a well thought out strategy.

2. KEMRI’s mandate is drawn from Science and Technology Act (Amendment),
1979 which has since been repealed by the Science, Technology and Innovation, 2013 which does not explicitly provide for the functions of the Institute. In order to have a firm legal foundation, KEMRI will need to pursue development of the KEMRI Bill through an Act of Parliament which will consolidate its functions and harmonize with other existing legislation.

3. Employees remain an organization’s greatest asset, especially when provided with a great place to work. Striking the right balance between staff motivation and productivity is often an intricate act that is sometimes difficult to achieve. As it repositions itself, KEMRI must pay attention to its employees by establishing a mechanism to mitigate brain drain.

2.3. Risk Analysis
The purpose of this risk management framework is to provide a mechanism for management of situations that could cause KEMRI material, strategic, reputational, regulatory, legal, security and operational difficulties or losses. In this strategic planning period, risk management activities shall be embedded within the processes and systems of KEMRI. KEMRI’s current risks originate both internally and externally and have been categorized into Financial, Reputation, Operational, Programmatic, Business continuity and Human Resources risks. For each risk, appropriate mitigation measures have been identified which have subsequently informed the Strategy formulation. The risk analysis will also provide an integral input in the development of a comprehensive institute risk management strategy.

Table 8: Summary of Organizational Risks

<table>
<thead>
<tr>
<th>Nature of Risk</th>
<th>Risk Description</th>
<th>Risk of Occurrence</th>
<th>Severity of events</th>
<th>Mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>Changes in government continue to affect workings and coherence of KEMRI</td>
<td>Low</td>
<td>High</td>
<td>• Enculture flexibility to always remain relevant to the Government agenda</td>
</tr>
<tr>
<td></td>
<td>Government funding is inadequate to sustain essential health research priorities</td>
<td>Moderate</td>
<td>High</td>
<td>• Broaden and diversify the resource base</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Strengthen internal mechanisms to ensure prudent utilization of limited resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Lobby for increased funding</td>
</tr>
<tr>
<td>Nature of Risk</td>
<td>Risk Description</td>
<td>Risk of Occurrence</td>
<td>Severity of events</td>
<td>Mitigation measures</td>
</tr>
<tr>
<td>-----------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------</td>
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<td>-------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Economic Environment | Decline in donor support to health sector programmes in Kenya due to negative trends in the global economy | Moderate           | Moderate           | • Broaden and diversify the resource base  
• Strengthen internal mechanisms to ensure prudent utilization of limited resources  
• Lobby for increased funding |
| Natural Disasters | Emergencies due to; Bomb Threats, Floods, Fire outbreaks, Earthquakes, overcrowding, | Low                | High               | • Develop and implement emergency response policies                                   |
|                  |                                                                                 |                    |                    | • Develop and implement emergency response policies                                   |
|                  | Physical/attempted assault on any staff / Injuries or incidences requiring first aid and/or hospitalization | Low                | Moderate           | • Develop and implement emergency response policies                                   |
|                  |                                                                                 |                    |                    | • Develop and implement emergency response policies                                   |
| Technical        | Aging ICT infrastructure / limited database                                      | Moderate           | High               | • Adopt equipment and infrastructure policy  
• Adopt new technologies                                                                 |
<p>|                  | Inadequate Physical infrastructure                                              | Moderate           | Low                | • Space and use audit to review future space requirement                              |
|                  | Inability to attract extra funding from donor sources                            | Moderate           | High               | • Resource mobilization strategy should be developed and implemented                  |</p>
<table>
<thead>
<tr>
<th>Nature of Risk</th>
<th>Risk Description</th>
<th>Risk of Occurrence</th>
<th>Severity of events</th>
<th>Mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial risks</td>
<td>Corruption/Fraud</td>
<td>High</td>
<td>High</td>
<td>• Financial risks should be monitored on a quarterly basis by the Finance &amp; Audit Committee</td>
</tr>
<tr>
<td>Liquidity risk</td>
<td></td>
<td>High</td>
<td>Moderate</td>
<td>• Annual cash-flow should be incorporated into budget to strengthen longer term cash flow planning</td>
</tr>
<tr>
<td>Inability to develop sufficiently good scientific protocols to respond to calls.</td>
<td>High</td>
<td>Moderate</td>
<td>• Training of staff in grants writing.</td>
<td></td>
</tr>
<tr>
<td>Nature of Risk</td>
<td>Risk Description</td>
<td>Risk of Occurrence</td>
<td>Severity of events</td>
<td>Mitigation measures</td>
</tr>
<tr>
<td>---------------</td>
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</tr>
<tr>
<td>Programme Risks</td>
<td>Inability to provide Research leadership</td>
<td>High</td>
<td>Moderate</td>
<td>Train researchers in people leadership skills</td>
</tr>
<tr>
<td></td>
<td>Collaboration &amp; partnership – managing expectations</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Develop a communication strategy which continuously informs stakeholders.</td>
</tr>
<tr>
<td></td>
<td>Research implementation delays</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Train researchers in people management skills</td>
</tr>
<tr>
<td></td>
<td>Data loss &amp; database management</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Data audits carried out regularly as activities / functions expand.</td>
</tr>
<tr>
<td></td>
<td>Bio-security &amp; bio-hazards</td>
<td>Moderate</td>
<td>High</td>
<td>• Establish emergency response and disaster preparedness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Access control to facilities</td>
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<td></td>
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<td></td>
<td>• Regular drills</td>
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<td></td>
<td></td>
<td></td>
<td>• Procure and deploy automatic electronic defibrillators</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Establish coping strategies such as enhanced insurance cover.</td>
</tr>
<tr>
<td></td>
<td>Inability to fully utilize research funds</td>
<td>High</td>
<td>Moderate</td>
<td>• Building capacity on project management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Improve finance and procurement processes</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Increase staffing</td>
</tr>
<tr>
<td></td>
<td>Inability to attract and retain staff with critical research and management skills</td>
<td>High</td>
<td>Moderate</td>
<td>Improved terms of service; providing a great place to work</td>
</tr>
<tr>
<td>Reputation Risk</td>
<td>Errors by management in developing and implementing programs and strategies</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Strong audit and external programs evaluation team oversight; implement Mwongozo</td>
</tr>
</tbody>
</table>
### Table 9: Stakeholder Analysis

<table>
<thead>
<tr>
<th>Key stakeholders</th>
<th>Interests</th>
<th>Power</th>
<th>Strategic implication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary stakeholders</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Citizens 'wananchi' | • Health care services and solutions (H)  
• Employment (H)  
• Training (H)  
• Corporate social responsibility (H)  
• Research participant insurance cover (H) | • Research participants (L)  
• Access for research (L)  
• Safety and security (L) | • Empowerment  
• Public education  
• Demand creation  
• Branding  
• Communication information |
<table>
<thead>
<tr>
<th>Key stakeholders</th>
<th>Interests</th>
<th>Power</th>
<th>Strategic implication</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEMRI Employees</td>
<td>• Research priorities and passion (H) &lt;br&gt; • Enabling environment (H)  &lt;br&gt; • Terms and conditions of service (H) &lt;br&gt; • Involvement and engagement in key decisions affecting them</td>
<td>• Productivity (H) &lt;br&gt; • Intellectual capital/ knowledge flow (H) &lt;br&gt; • Innovation and Creativity (H)</td>
<td>• Supply of health solutions and related products  &lt;br&gt; • Competitive edge  &lt;br&gt; • Brand name  &lt;br&gt; • Research excellence and leadership  &lt;br&gt; • National and international recognition  &lt;br&gt; • Enhanced productivity</td>
</tr>
<tr>
<td>GoK (includes MoH, National Treasury, SCAC, PSC, SRC, NACOSTI, KENIA, NRF, CUE, County Governments, Security agencies, Office of AG and department of justice, Parliament)</td>
<td>• Leadership and governance (H) &lt;br&gt; • Priority setting (H) &lt;br&gt; • Regulatory frameworks (H) &lt;br&gt; • Research funding (H) &lt;br&gt; • Policy formulation and implementation (H) &lt;br&gt; • Innovative research products (H) &lt;br&gt; • Ethical framework (H) &lt;br&gt; • Enabling environment (H) &lt;br&gt; • Resource development (H)</td>
<td>• Ownership (H) &lt;br&gt; • Stewardship (H) &lt;br&gt; • Funding (H) &lt;br&gt; • Policy (H) &lt;br&gt; • Customers (H) &lt;br&gt; • Goodwill (H)</td>
<td>• Legal framework  &lt;br&gt; • Strategic recognition and positioning  &lt;br&gt; • Essential national innovative hub  &lt;br&gt; • Dedicated national funding  &lt;br&gt; • Increase revenue from other sources  &lt;br&gt; • Regional and global centre of excellence</td>
</tr>
<tr>
<td>Partners &amp; collaborators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>• Research standards and regulatory frameworks (H) &lt;br&gt; • Impact evaluation (H) &lt;br&gt; • Mutual accountability (H) &lt;br&gt; • Regulation of research information and data (H) &lt;br&gt; • Funding research (H) &lt;br&gt; • Patents (H) &lt;br&gt; • Capacity development (H) &lt;br&gt; • Research (M)</td>
<td>• Funding (H) &lt;br&gt; • Technology &amp; Expertise (M)</td>
<td>• Strengthened research capacity  &lt;br&gt; • Reformed and strengthened MOUs  &lt;br&gt; • Fair ownership of IPs</td>
</tr>
<tr>
<td>Key stakeholders</td>
<td>Interests</td>
<td>Power</td>
<td>Strategic implication</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
</tbody>
</table>
| International          | • Technology transfer  
                        • Regulation of research information and data (H)  
                        • Impact evaluation (H)  
                        • Mutual accountability (H)  
                        • Funding research (H)  
                        • Patents (H)  
                        • Capacity development (H)  
                        • Research (M)  
                        • Mentorship                | • Funding (H)  
                        • Technology & Expertise (M) | • Strengthened research capacity  
                        • Reformed and strengthened MOUs  
                        • IPs to advantage KEMRI |
| Professional bodies and Unions | • Professional ethics and Standards (H)  
                        • Licensing (H)  
                        • Recognition rewards and sanctions (M)  
                        • Welfare (M)  
                        • Member subscription (M)  
                        • Continuous professional development (H) | • Compliance enforcement (H)  
                        • Quality and standards (H)  
                        • Collective bargaining (H) | • Compliance with international laws, norms and standards  
                        • Benchmarking and best practices  
                        • Good Clinical Laboratory Practices, GMP  
                        • Other international standards e.g ISO  
                        • Accreditation and international recognitions  
                        • Implementation of CBAs  
                        • Good industrial relations  
                        • Highly motivated workforce |
<table>
<thead>
<tr>
<th>Key stakeholders</th>
<th>Interests</th>
<th>Power</th>
<th>Strategic implication</th>
</tr>
</thead>
</table>
| Health care service delivery facilities | • Bench to bedside (H)  
• Appropriate, acceptable and affordable health solutions and technologies (H)  
• Research Products (H)  
• Diagnostic capacity (H)  
• QA/QC (H)  
• Capacity development (H)  
• Resource development (infrastructure, equipment and supplies)  
• Access and usage of research products by clients  
• Impact evaluation | • Source of Information on health and disease burden and research priority identification (H)  
• Application of research products (H)  
• Continuous learning and quality improvement (H)  
• Services (H)  
• Delay access (H) | • Central hub for determining disease burden and research priorities  
• Strengthened policy dialogue and resource allocation  
• Highest standards of health  
• Optimal staffing norms and standards and health equity  
• Quality assurance and quality control  
• Impact of devolution in health care delivery |
| Academia (Universities & their staff/students) | • Research facilities (H)  
• Faculty (H)  
• Capacity building (H)  
• Research dissemination platforms (H)  
• Patents and new product development (M)  
• Research methodology and guidelines (M)  
• Honorary teaching positions (M) | • Man power (L)  
• Financial resources (L)  
• Training (L)  
• Mentorship (L) | • Strategic balanced partnerships and collaboration with KEMRI |
| Local | • Research facilities (H)  
• Faculty (H)  
• Capacity building (H)  
• Research dissemination platforms (H)  
• Patents and new product development (M)  
• Research methodology and guidelines (M)  
• Honorary teaching positions (M) | | |
| International | • Research facilities (H)  
• Faculty (H)  
• Capacity building (H)  
• Research dissemination platforms (H)  
• Patents and new product development (M)  
• Research methodology and guidelines (M)  
• Local presence and collaboration (M) | • Man power (L)  
• Financial resources (L)  
• Training (L)  
• Mentorship (L) | • Strategic balanced partnerships and collaboration with KEMRI |
<p>| Research institutions | | | |</p>
<table>
<thead>
<tr>
<th>Key stakeholders</th>
<th>Interests</th>
<th>Power</th>
<th>Strategic implication</th>
</tr>
</thead>
</table>
| Local            | - Research facilities (H)  
                  - Capacity building (H)  
                  - Research dissemination platforms (H)  
                  - Patents and new product development (M)  
                  - Research methodology and guidelines (M)  
                  - Benchmarking (H)  
                  - Visiting scientists (M) | - Knowledge repository  
                  - Intellectual property  
                  - Royalties and awards | - Highly competitive environment  
                  - Joint reviews/ conferences/ grant applications  
                  - Exchange programmes  
                  - Multidisciplinary research priority setting  
                  - Research translation  
                  - Joint disease outbreak investigations |
| International    | - Research facilities (H)  
                  - Capacity building (H)  
                  - Research dissemination platforms (H)  
                  - Patents and new product development (M)  
                  - Research methodology and guidelines (M)  
                  - Local presence and collaboration (M)  
                  - Visiting scientists | - Knowledge repository  
                  - Intellectual property  
                  - Royalties and awards | - Highly competitive environment  
                  - Joint reviews/ conferences/ grant applications  
                  - Exchange programmes  
                  - Multidisciplinary research priority setting  
                  - Research translation  
                  - Joint disease outbreak investigations |
| Customers/ clients | - Timely relevant high quality research evidence for policy formulation and evidence based practices (H)  
                  - High skilled human resources for health (H)  
                  - Quality products and services (H)  
                  - Image (M) | - Purchasing power (L)  
                  - Customer confidence (L) | - High demand for KEMRI products and services  
                  - Preferred service provider  
                  - Enhance marketing  
                  - Branding  
                  - Prestigious institution attractive to clients  
                  - Centre of excellence |
### Key stakeholders

<table>
<thead>
<tr>
<th>Suppliers</th>
<th>Interests</th>
<th>Power</th>
<th>Strategic implication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Commercial interests (H)</td>
<td>• Supplies of goods and services (H)</td>
<td>• Adhere to good business practices</td>
</tr>
<tr>
<td></td>
<td>• Provision of goods and services (H)</td>
<td>• Credibility (H)</td>
<td>• Efficient and effective procurement management</td>
</tr>
<tr>
<td></td>
<td>• Standards (H)</td>
<td>• Cost of doing business (M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Credit period (H)</td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td>• Commercial (H)</td>
<td>• Information dissemination (H)</td>
<td>• Image and visibility</td>
</tr>
<tr>
<td></td>
<td>• Information gathering and sharing (H)</td>
<td>• Visibility</td>
<td>• Credibility and accountability</td>
</tr>
<tr>
<td></td>
<td>• Image (M)</td>
<td></td>
<td>• Increased funding</td>
</tr>
</tbody>
</table>

**Key:** H – high; M – moderate; L – low

#### 2.5. Key Success Factors

Arising from the situation analysis, the following have been identified as the key success factors for the Institute;

- a) Develop/review enabling legislation framework;
- b) Rebrand and reposition KEMRI as a leader in research for human health;
- c) Invest in priority research for human health;
- d) Espouse good corporate governance;
- e) Recruit, develop and retain the best human resource;
- f) Establish strategic partnerships and collaborations;
- g) Ensure financial sustainability and resource mobilization;
- h) Transform and reengineer business processes;
- i) Automate key functions and processes; and
- j) Develop and implement of key policies and operation manuals;
- k) Upgrade research infrastructure.
CHAPTER THREE:

STRATEGIC DIRECTION
3.1. Preamble
Whereas the ultimate goal of research for health is improved health and wellbeing at the national and international level, the unique contribution of KEMRI will be to generate the evidence required to inform policy and improve practice. KEMRI is expected to play a significant role in global health research especially in research translation. KEMRI’s Vision, Mission and Strategic Objectives will be informed by that agenda, as well as by the situational analysis. The strategic approach KEMRI will take will therefore be as outlined below.

3.2. Strategic Themes/ Key Result Areas (KRAs)
During this strategic plan period, KEMRI has identified the following five areas of focus/ Key Result Areas:

<table>
<thead>
<tr>
<th>Strategic Theme</th>
<th>Focus</th>
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<tbody>
<tr>
<td>1</td>
<td>Research and Innovation</td>
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<tr>
<td>2</td>
<td>Corporate Governance</td>
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<tr>
<td>3</td>
<td>Research Infrastructure</td>
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<tr>
<td>4</td>
<td>KEMRI Graduate School of Health Research</td>
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<tr>
<td>5</td>
<td>Financial Sustainability</td>
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</tbody>
</table>

Arising from the above Strategic Themes, KEMRI will pursue the following Strategic Objectives:

- **Strategic Objectives 1:** To strengthen investment in health Research and Innovation
- **Strategic Objectives 2:** To strengthen corporate governance by transforming and reengineering business processes in order to achieve efficiency and effectiveness in health research and service delivery
- **Strategic Objectives 3:** To upgrade research infrastructure and automate processes
- **Strategic Objectives 4:** To attain degree awarding status for KEMRI graduate school of Health sciences
- **Strategic Objectives 5:** To enhance and diversify resource mobilization as a step towards financial sustainability

3.3. Key Result Areas, Strategic Issues, Objectives, Strategies and Activities
Strategic Theme 1: 
Research and Innovation

Strategic Objectives 1: 
To strengthen investment in health Research and Innovation
Introduction
During this strategic planning period, KEMRI will invest in priority research for health areas. The specific areas will be informed by local, national and regional ill-health considerations, occurrences and emergencies. KEMRI will use innovative approaches and appropriate technologies to monitor the emergence and re-emergence of diseases. It will embrace the “One Health Concept” to convene its human, environmental and animal health interests.

Strategic Issue: Inadequate investment in Health research priority areas

Strategy 1.1 Develop Health Research Agenda

Activities

a) Assess research needs and define research for health priorities
b) Participate in international priority research agenda setting (WHO Assembly, EAC, National TWG,)
c) Train county health management teams (CHMTs) on the various aspects of health research
d) Conduct county and community engagement fora to develop and implement priority research agenda
e) Planning, convening and holding meetings to deliberate research programme agenda

Strategy 1.2 Strengthen Research Approval and Implementation Mechanisms

Activities

a) Strengthen research implementation oversight
b) Develop and implement KEMRI research policy
c) Carry out peer review and benchmarking
d) Review and approve research proposals
a) Consolidate research under research programmes
b) Form strategic research teams
e) Carry out quality control and quality assurance in research and innovation
f) Develop research - evidence based clinical practice guidelines
g) Review and implement guidelines/regulations for conducting research
h) Monitor and evaluate implementation of research projects
i) Conduct external scientific advisory audit
j) Conduct external institutional review
Strategy 1.3  Conduct research for human health in priority areas

Activities

a) Conduct research on Universal Health Coverage
b) Conduct research on human food security and nutrition
c) Conduct Research on Health systems
d) Conduct research on environmental and occupational health
e) Conduct research in immunology
f) Conduct research in proteomics
g) Conduct research in genomics
h) Conduct Stem Cell Research
i) Conduct Research in Nanotechnology
j) Conduct research on mental health/substance abuse
k) Conduct research in natural products
l) Establish drug discovery/pharmacovigilance biosimilar research
m) Implement research in other priority research areas

Strategy 1.4  Strengthen Research Translation and Knowledge Management

Activities

a) Publish manuscripts
b) Organize conferences, symposia and workshops
c) Present research findings in scientific forums
d) Constitute research translation committee and hold regular policy dialogue meetings/forums
e) Translate research findings into policies and practice guidelines
f) Link researchers with policy makers
g) Hold regular media briefs
h) Hold Community engagement forums to disseminate research findings
i) Establish and operationalize a web based portal for dissemination of research findings
j) Develop and Integrate Databases
k) Capacity building on knowledge management and Knowledge translation
l) Establish strategic information gathering office
m) Train researchers on preparing targeted reports for different audiences
Strategy 1.5 Strengthen Innovations in Research for Human Health

Activities

a) Adopt Precision Medicine models in research and innovation
b) Map commercializable research products and innovations
c) Develop a marketing strategy and implement it.
d) Commercialize research products and innovations
e) Register and launch new products and innovations emanating from research
f) Quality control and quality assurance in research and innovation
g) Development of generic drugs from established brand drugs

Strategy 1.6 Strengthen County, National and International Linkages

Activities

a) Develop and implement clear collaboration policies
b) Sensitize collaborators on partnership policies and practice
c) Monitor and evaluate collaborations and partnerships

Strategy 1.7 Create and Sustain Global Competitive Edge

Activities

a) Facilitate registration of staff to relevant local and international professional bodies
b) Spearhead establishment of a professional recognition and regulatory platform for research scientists in human health
c) Create exchange programmes

Strategy 1.8 Establish Strategies and Tools for Disease Surveillance and Disaster Preparedness

Activities

a) Strengthen coordinating structures for disease surveillance, emergency and disaster preparedness
b) Develop and review tools for monitoring diseases of public health importance
c) Liaise with the MOH and other relevant partners on disease surveillance.
d) Identify priority areas
e) Develop disease surveillance concept notes
f) Develop and automate a data management system
g) Training frontline institute health workers
h) Capacity building on disease surveillance and disaster preparedness at county level
Strategic Theme 2: 
**Corporate Governance**

**Strategic Objectives 2:**
To strengthen corporate governance by transforming and re-engineering business processes in order to achieve efficiency and effectiveness in health research and service delivery.
Strategic Theme 2: Corporate Governance
The World Bank defines governance as “the manner in which power is exercised in the management of a country’s economic and social resources for development.” Strong governance for human health research is necessary to ensure that resources devoted to the health research are prudently management with the ultimate goal of improving health outcomes.

Strategic issue: This strategic theme aims to address gaps in research regulation, institutional capacity and systems, transparency and accountability, policies as well as communication of research findings

Strategy 2.1 Strengthen Legal Framework
Activities
a) Review the existing Act under which KEMRI is established to harmonize with the Kenya constitution and other legislation
b) Carry out legal audits to ensure compliance with the constitution, laws and all statutory requirements
c) Develop and implement a case management policy for addressing litigation

Strategy 2.2 Realign KEMRI Systems and Structures
Activities
a) Review and establish a flat organizational structure
b) Provide stewardship in the management of public resources
c) Decentralize Finance, procurement and Human Resource functions
d) Develop a decentralization policy
e) Implement Quality Management Systems
f) Ensure Accreditation for all laboratories
g) Improve budgetary controls
h) Train staff on governance
i) Restructure centres and programs to focus on key mandate

Strategy 2.3 Mainstream Monitoring and Evaluation in Research and Development
Activities
a) Monitor and Evaluate (M&E) implementation of strategic plan, Institute policies and Government circulars
b) Establish M&E management steering committee
c) Develop and approve M&E policy
d) Develop M&E Guidelines and tools
e) Develop SOPs and guidelines on data management, data quality assurance and performance reviews
f) Establish an integrated digitized monitoring and evaluation system

g) Establish a framework for data collection

h) Recruit planning and M&E officers

i) Capacity building for researchers and M&E staff

j) Orient research and support staff on the M&E system, M&E guidelines and tools

k) Developing of Annual Work Plans (AWP) based on strategic plan

l) Carry out midterm review of strategic plan

m) Develop annual programme /projects monitoring and evaluation schedule and carry out regular joint monitoring and evaluation exercise

n) Regular Reporting on implementation of activities

o) Benchmark with local and international institutions and apply best practices in M&E

p) Create database of all research activities, findings, policies and other useful information

Strategy 2.4 Strengthen Procurement and Supply Chain Management System

Activities

a) Develop Institute procurement plan

b) Develop and implement procurement and supply chain manual

c) Set up a supplies warehouse

d) Develop and implement an asset management policy

e) Develop and maintain inventory of assets and properties

f) Disposal of unserviceable and obsolete assets

Strategy 2.5 Improve Communication and Institutional Image

Activities

a) Review and implement corporate communication policy and strategy.

b) Enhance Online Presence

c) Carry out corporate social responsibility

d) Develop and operationalize corporate branding manual/policy

e) Undertake publicity campaigns and open days

f) Regular productions (newsletters, infographics)

g) Set up a client’s advocacy and insight
Strategy 2.6 Review and Establish Effective Human Resource Management Systems

Activities
a) Finalize review and operationalize the Human Resource Policies and procedures Manual
b) Review optimal staffing levels
c) Finalize and implement Career Progression guidelines
d) Develop and operationalize the human resource strategy
e) Review and implement Training and Development Policy
f) Carry out skills gap analysis and implement the report
g) Carry out training needs assessment and implement the report
h) Undertake training impact analysis.
i) Develop and implement succession plan
j) Undertake a culture change exercise

Strategy 2.7 Improve Terms and Conditions of Service and Employee Performance

Activities
a) Establish car loan and mortgage schemes
b) Provide inpatient and outpatient medical cover to all staff and dependents
c) Undertake and implement employee satisfaction and work environment survey
d) Sign individual performance contracts and evaluate implementations
e) Implement automated performance appraisal system
f) Implement recommendations of performance appraisal
g) Develop and implement an incentive and sanctions framework
h) Develop and implement Conflict of Interest Policy
i) Develop and implement Grievance Management Policy
j) Implement government circulars on employee terms and conditions of service
k) Strengthen employee relations through coordinated team building activities

Strategy 2.8 Strengthen Biosafety and Biosecurity

Activities
a) Maintenance of firefighting equipment
b) Compliance to occupation safety Act
c) Provide personnel protective equipment
d) Conduct biosafety and biosecurity training
e) Conduct regular biosafety audits
Strategic Theme 3: 
Research Infrastructure 

Strategic Objectives 3: 
To upgrade research infrastructure and automate processes
Strategic issue: Inadequate and Aging Research Infrastructure

Strategy 3.1 Upgrade Infrastructure Necessary for Health Research

Activities

a) Construct and upgrade research laboratories to accreditable standards
b) Acquire cutting edge research equipment
c) Develop a Centre for excellence in Genomics, Bioinformatics and Drug Discovery
d) Construct Research facilities at County KEMRI Centres
e) Acquire and process title deeds for KEMRI parcels of land (Mbagathi way residential, Busia, Taveta)
f) Construct KEMRI Vehicle Maintenance Unit at CPHR
g) Construct of multipurpose, multi story facility (CPHR + CMR)
h) Master plan design for KEMRI centres including Kwale, Alupe, Kisian, Taveta and KNH
i) Construct of research administration block at KEMRI HQ
j) Construct of research regulation and coordination block at KEMRI HQ
k) Perimeter wall and sentry for CMR, KNH grounds, CIPDCR
l) Erect security barriers at all entrances
m) Install security screening equipment
n) Install Access control systems within buildings
o) Install surveillance cameras
p) Upgrade plumbing systems for CIPDCR
q) Acquire and maintain new vehicles
r) Equip CCR for phase I clinical trials
s) Procure an ambulance for CCR/staff clinic
t) Set up advanced cancer diagnostics and treatment facility
u) Operationalize sample management and repository facility
v) Carry out maintenance and repairs of facilities and equipment
w) Develop and implement an infrastructure and equipment management policy

Strategy 3.2 Automation of Core Institute Processes

Activities

a) Deploy an Enterprise Resource Planning Solution
b) Acquire modern end user computers
c) Acquire new Servers
d) Implement network security system
e) Acquire backup solution for Collocation/ Replication/ Virtualization
f) Upgrade VOIP and video-conferencing systems
g) Implement network (LAN, WAN) upgrades
h) Digitize Library Information Services
i) Set up a health information management system to support clinical services
j) Establish Information Security Management Systems
k) Acquire appropriate security systems
Strategic Theme 4:
KEMRI Graduate School of Health Research

Strategic Objectives 4:
To attain degree awarding status for KEMRI Graduate School of Health
Strategic Issue: The aim of this KRA is to build human capacity of research scientists for the long-term sustainability of the country, regional and international health research.

Strategy 4.1: Establish Degree Awarding Status for KEMRI Graduate School of Health

Activities

a) Pursue Graduate School of Health Sciences Charter  
b) Design postgraduate courses/ curriculum  
c) Enroll students  
d) Recruit lecturers and supervisors  
e) Create a database of trained experts  
f) Implement a mentorship scheme for research leaders  
g) Mainstream sandwich training programs with other institutions  
h) Establish Joint scholarships  

Strategic Issue: Reduce donor dependency and enhance the ability for KEMRI to finance research on health research needs of the country
Strategic Theme 5: **Financial Sustainability**

Strategic Objectives 5:
To enhance and diversify resource mobilization as a step towards financial sustainability
Strategy 5.1: Sustain Existing Partnerships and Collaborations and Seek New Partnerships

Activities
a) Identify program areas for partnerships and collaboration
b) Strengthen existing funding networks
c) Develop new funding networks

Strategy 5.2 Mobilize Research and Infrastructural Funding

Activities
d) Develop unsolicited proposals for infrastructural development
e) Engage the National Research Fund for increased allocation
f) Lobby GoK for establishment of a dedicated KEMRI research fund
g) Identify funding calls and lobby for research funding
h) Engage public/private partnerships
i) Engage local entities to partners in financing research

Strategy 5.4 Enhance Income Generation

Activities
a) Strengthen commercial enterprises office
b) Develop a resource mobilization plan
c) Formulate a pricing policy for products and services
d) Expand current product line and volumes
e) KEMRI Graduate School
f) Provide Conferencing Services
g) Provide Consultancy services
h) Provide Specialized Services
i) Earn Research Overheads
j) Rent and lease space to clients

Strategy 5.5 Strengthen Grants Management

Activities
a) Track global research program funding
CHAPTER FOUR:
COORDINATION FRAMEWORK, IMPLEMENTATION, MONITORING AND EVALUATION
Implementation of this Strategic Plan will be a concerted effort across Institute management and staff.

4.1. The Performance Management Framework
KEMRI has adopted a performance management framework to facilitate successful implementation of this Strategic Plan. The framework provides a basis for setting of performance targets, evaluation and rewarding or sanctioning of performance. The strategic objectives, strategies and activities in the Plan will be translated into departmental objectives, strategies and activities and further cascaded to individual performance targets. This will facilitate effective appraisal at the individual, departmental and institutional levels while allowing for continuous improvement of performance and by extension, effective implementation of Institute programmes.

4.2. Implementation Management Structure
Within the senior management team, a strategy implementation team will be established to coordinate implementation and make progress reports on a quarterly basis. The heads of directorates, departments and sections will take responsibility within their functional areas and report on a monthly basis.

4.3. Implementation Framework
The implementation of the Strategic Plan will comply with the performance contracting framework. The Director General with the support of Directors and heads of departments will provide overall guidance for the implementation of the Strategic Plan. Regular departmental meetings will be utilized for progress review to support the implementation of the Strategic Plan. KEMRI will also ensure harmony with other relevant Government initiatives and appropriate linkages with stakeholders to enhance synergy as it seeks to realize the goals and objectives set out in the Plan.

4.4. Organizational Structure
During the strategic plan period, KEMRI reviewed its organizational structure in order to enhance coordination of scientific and support activities and ensure effective service delivery. The new organizational structure provides for the Board of Management as the supreme governance organ while the management is headed by the Director General.

In line with its core business, KEMRI organizational structure has taken into account lessons learnt so far in the implementation of the previous organizational structures and its mandate. The new organizational structure has created six directorates namely; Directorate of Research Capacity Building, Directorate of Research and Development, Directorate of Partnerships and Grant Management, Directorate of Strategy & Compliance, Directorate of Corporate Services and Corporation Secretary and Directorate of Legal Services. Figure 3 below presents the organizational structure that will deliver the identified strategies.
Figure 3: KEMRI Organizational Structure
4.5. Mandates of Directorates

4.5.1. Directorate of Research and Development

The Directorate of Research and Development will be headed by a Director and shall be responsible for carrying out the following duties and responsibilities.

i) Develop and ensure implementation of the institute research and health policy to ensure provision of evidence based health solutions through policy and products at national regional and global level;

ii) Provide strategic leadership and administrative management of the Research and Development directorate;

iii) Establish strategic partnerships for research, innovations, and technology transfer;

iv) Coordination of research review, management and reporting;

v) Guide in the development of research proposals;

vi) Promotion of innovation and technology transfer and product development

vii) Coordination of research activities and operations through centers

viii) Coordination of clinical services, trial sites, hospitals and specialized Services;

ix) Overseeing disease surveillance and epidemiological platforms;

x) Oversee the development, implementation and co-ordination of research staff training programs and capacity building activities in the Institute;

xi) Facilitate dissemination, translation and implementation of research findings; interpreting the Science and Technology Act and other relevant statutes in relation to the Institute;

xii) Ensuring prudent resource management and compliance to budgetary requirements and financial reporting;

xiii) Ensuring maintenance of accurate and up to database of all Research assets including research projects and intellectual properties;

xiv) Ensure the co-ordination of activities and operations of research centres;

xv) Ensuring compliance to research policy, regulation, standards and guidelines;

xvi) Spearheading partnerships, collaborations and links with professional institutions and related bodies in advancing the Institute’s interest.

4.5.2. Directorate of Scientific Programmes, Partnerships and Grant Management

The Directorate of scientific programmes, partnerships and grants management will be headed by a Director and shall be responsible for carrying out the following duties and responsibilities.

i) Coordinate all the research activities that are carried out in the Institute, advice on policy that will contribute towards realization of Equitable, Affordable and Quality Health Care.
ii) Provide support in research financing and development of sustainable research and grants management capacity, and creation of effective synergy and networks within KEMRI, and with donors and partners in the public and private sector.

iii) Ensure efficient and effective grant compliance and financial management of research funds based on donor and the institutional policies and guidelines.

iv) Coordinate research for human health in the devolved system of Government. In contributing towards realization of Equitable, Affordable and Quality Health Care of the Highest Standard as enshrined in the Constitution of Kenya 2010 and the Country’s blue print, Vision 2030, KEMRI has developed a comprehensive framework, under which the Institute will carry out research, capacity building and service delivery in the country’s forty seven Counties.

v) Coordinate the Scientific Research Programs in the Institute

vi) Coordinate Grants Management of the Institute

vii) Coordinate Country Cluster Coordinators and the REACH-PI.

viii) Promote, coordinate and advance all research collaborations and partnership.

ix) Liaise with Government Ministries, other research Institutions, the Universities, the National Council for Science and Technology and Innovations (NACOSTI) and other organization on research collaboration activities.

x) Coordinate Research related Vision 2030 committee and activities

xi) Promote partnership and collaboration, and ensure efficient and effective technical cooperation.

xii) Coordinate the Planning and execution of national, regional and international collaborative activities of ESACIPAC.

xiii) Develop and review collaborative MOUs and agreements with partners.

xiv) Develop and review MOUs and Service Level Agreements (SLAs) with county Governments and other relevant partners.

xv) Coordinate routine meetings with collaborators, partners and other stakeholders to thrush out issues of mutual concern.

xvi) Initiate development of policies that will enhance funding for research programs

xvii) Develop strategies that Attract research grant income, and other income, from a variety of sources, for research and capacity building efforts towards financial sustainability of the Institute.

4.5.3. Directorate of Research Capacity Building

The Directorate of Research Capacity Building will be headed by a Director and shall be responsible for carrying out the following duties and responsibilities.

i) To oversee the development, implementation and coordination of capacity building strategies, policies and regulations and teaching of academic
programs of the graduate school;

ii) Supervise and coordinate the academic and administrative programs of the graduate school;

iii) Oversee the development and regular reviewing the specialized curriculum and other research strengthening initiatives in the directorate;

iv) Overseeing the establishment of effective institutional structure for monitoring quality assurance in the academic and research programs;

v) Ensure proper planning, development, coordination and management of curricula for training;

vi) Establish endowment funds for scholarships, fellowship and grants;

vii) Establish exchange programs;

viii) Oversee the supervision and coordination of the academic and administration programs of the directorate;

ix) Ensure student compliance to research policy, regulation, standards and guidelines;

x) Spearhead training partnerships, collaborations and linking with professional institutions and related bodies in advancing the Institute’s interest;

xi) Develop short skill development courses for employees of KEMRI;

xii) Ensure student compliance to research policy, regulation, standards and guidelines;

xiii) Spearhead partnerships, collaborations and links with professional institutions and related bodies in advancing the Institute’s interest.

4.5.4. Directorate of Strategy and Compliance

The Directorate of Strategy and Compliance will be headed by a Director and shall be responsible for carrying out the following duties and responsibilities.

i) Advising management on policies and strategies relating to planning, resource mobilization, performance management, quality assurance, risk management

ii) Coordinate overall long-term and medium-term planning for the Institute to ensure realization of institute’s Vision and strategic goals

iii) Coordinate development, implementation, monitoring, review and evaluation of Institute’s Strategic Plan and annual work plans for effectiveness and efficiency of implementation of planned activities

iv) Coordinate the overall Institutes Performance management framework to ensure alignment of performance targets to national and Institute long term plans

v) Develop, implement and monitor internal controls and risk management strategy to minimize losses incurred by the institute arising from exposure to risks

vi) Co-ordinate formulation and/or review of Institutes development strategies,
policies, programs and projects, leading to effective research and innovation, capacity building, policy formulation and service delivery.

vii) Coordinate programs/projects forecasts, estimates and budgets in liaison with departmental heads and the Finance Department for effective planning and implementation

viii) Coordinate identification and implementation of vision 2030 flagship projects geared towards realization of Sustainable Development Goals (SDGs)

ix) Coordinate and facilitate comprehensive capital/infrastructural needs assessment in consultation with user centres/departments and prioritizes projects in line with Institute’s Strategic Plan, Medium Term Plan and Vision 2030.

x) Develop, establish and maintain an institute up-to-date Master-database for Research and support activities

xi) Guide in the development, implementation and application of modern techniques in Monitoring and Evaluation systems for research and capacity building programs.

xii) Coordinate operations research and conduct surveys for additional strategic information for decision making

xiii) Conduct feasibility studies and carry out assessment of viability, strategic importance and sustainability of all development projects

xiv) Guide research teams to prepare monitoring and evaluation schedules and reports.

xv) Provide custody and secretariat of all capital projects documents for safe keeping and future reference

xvi) Preparation and implementation of the Centre’s Quality Management System through quality assurance programs.

xvii) Facilitate identification and evaluation of risks, monitoring risk exposure and advising management accordingly.

xviii) Implementation of Quality Management System (QMS) and other business reengineering processes initiatives;

4.5.5. Directorate of Corporate Services

The Directorate of Corporate Services will be headed by a Director and shall be responsible for carrying out the following duties and responsibilities.

i) Coordinate development of policies, plans and strategies in the functional areas of Human Resource, Finance, Administration, Corporate Communications, Communication Technology and Commercial Enterprises services;

ii) Develop effective operational policies, procedures, internal controls and systems for identifying, measuring, monitoring and controlling Institute’s operations to drive the implementation of the approved strategy;

iii) Oversee management of the Institute’s revenues and expenditure, assets and liabilities and staff payroll;
iv) Foster a culture that promotes team capability and reflects the values which facilitate performance, professionalism and innovation by staff throughout the institute;

v) Ensure financial prudence and discipline for Financial Accounting, Planning, budgeting and budgetary controls in compliance with the set legal guidelines;

vi) Oversee planning, directing and executing all human resources strategies, policies and plans;

vii) Coordinate provision of Engineering and Maintenance services,

viii) Ensure effective implementation and compliance with all legislative requirements relating to corporate services;

ix) Coordinate the institute’s Management Information Systems and security;

x) Coordinate technology infrastructure in line with the institute’s goals and changing technologies;

xi) Provide technical, strategic and policy advice on ICT matters and implementation of various ICT work processes, procedures and other administrative related matters;

xii) Ensure conducive work environment in the Institute;

xiii) Coordinate the establishment and management of income generating programs and activities

xiv) Coordinate the provision of physical security

xv) Oversee development, review and implementation of communications strategy to support the Institute’s objectives;

xvi) Ensure development and implementation of corporate communications plans to enhance the visibility of the Institute;

xvii) Undertake business case analysis and due diligence as well as prioritization of new initiatives and business opportunities to ensure viability before investment;

xviii) Ensure appropriate systems and procedures are in place to maximize the safety and security of all staff, units and stakeholders;

xix) Liaise with other security agencies on security matter;

xx) Coordinate implementation of general administrative policies and programs;

xxi) Coordinate management of the corporate image of the Institute

xxii) Coordinate the Institute’s public functions and corporate events.

4.5.6. Corporation Secretary and Directorate of legal services

The Corporation Secretary and Directorate of Legal Services will be headed by a Director and shall be responsible for carrying out the following duties and responsibilities.

i) Providing guidance to the Board as a whole and Board members individually on their duties, responsibilities and powers and how these should be exercised in the best interest of the Institute;
ii) Facilitate planning of all KEMRI Board of Management activities to ensure that they are aligned to the Institutes’ strategies relevant Government directives.

iii) Coordinate evaluation of performance of board members and board development programs;

iv) Offer guidance to the Director General, KEMRI and top Management in preparation of Board papers.

v) Providing secretarial services to the Board including ensuring that the minutes of the Board and board committees are promptly prepared and circulated;

vi) Custody of the seal and a record of its usage;

vii) Liaise with Parliament and Parliamentary Committees (Parliamentary Investment Committee (PIC) and Parliamentary Committee on Health) in answer of all parliamentary questions, queries and reports touching on the management of the Institute in order to ensure that the Institute meets its responsibility to the stakeholders;

viii) Offer guidance to the Institute on matters touching on investigations of the Institute by external agencies to ensure that the Institute’s image and interest are secure.

ix) Formulating policy and Providing advice on legal and corporate matters to the Institute through interpretation and writing legal opinions;

x) Ensuring that Legal Audit Compliance is carried out to confirm legal compliance with national, regional and international legal requirements;

xi) Developing and reviewing relevant regulatory Legal framework for the better implementation of the Institute’s mandate;

xii) Drafting and reviewing contracts, Service Level Agreements, Memorandum of Understanding, leases and other legal documents to ensure compliance to statutory requirements and the Institute’s policies;

xiii) Coordinating and ensuring representation of the Institute in courts or other judicial authorities;

xiv) Reviewing and providing advice on legal risk at the Institute;

xv) Managing litigation and review progress of outstanding litigation;

xvi) Liaising and managing external lawyers for the Institute;

xvii) Management of intellectual property rights of the institution.

xviii) Contract negotiation with external parties

xix) Initiation of legal action and defense on behalf of the Board of Management

4.6. Financial Forecasts
Implementation of strategies identified in the strategic plan 2018/23 depends on KEMRI’s ability to mobilize the required resources. The following are the financial estimates for the five year plan:
### Table 10: Financial Projections

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<td>10,656</td>
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#### 4.7. Monitoring and Evaluation Process

KEMRI will implement a monitoring and evaluation plan that will provide research support by establishing clear links between inputs, activities, outputs and outcomes/impact of institutional research and development initiatives. Monitoring and evaluation will help the institute extract relevant information from past and ongoing programmes that can be used as the basis for programmatic fine-tuning, reorientation and future planning. Without effective planning, monitoring and evaluation, it would be impossible to judge if work is going in the right direction, whether progress and success can be claimed, and how future efforts might be improved. This is based on constitutional principles of governance which include; Professional ethics, transparency and
accountability; Efficiency and effectiveness; Value for money and economic use of resources; Responsiveness to citizens needs and public participation; Development orientation and sustainability; and Continuous improvement in service delivery. The implementation plan will use an integrated monitoring and evaluation system that employs standardized M&E tools and procedures in all programmes and projects. KEMRI will improve its performance monitoring and review process and enhance knowledge management through improved documentation. To achieve these goals, KEMRI will invest in building the capacity of its M&E department.

Monitoring will involve routine data collection and analysis on the progress of the Strategic Plan implementation. The results from the analysis will then be used to inform decision-making, including taking corrective action where deviations in implementation have been noted. The Directorate of Strategy and Compliance will coordinate collection of M&E data, analysis and reporting. It will provide technical support and facilitate M&E capacity building in liaison with the Human Resource Department. Monitoring, Evaluation and Reporting mechanisms will be institutionalized by establishing an M&E Committee, consisting of all Directors and chaired by the Director General. Funds will be allocated for M & E activities.

KEMRI will also ensure ownership of the Strategic Plan by all Directorates, departments and divisions. The Departments will monitor programmes and projects administered within their respective jurisdictions and subsequently submit quarterly and annual M&E reports to the directorate of strategy and compliance, who will in turn submit the same to Institute M&E Committee. These reports will be reviewed regularly against the set targets to measure progress.

The Strategic Plan will be evaluated during and after implementation to gauge the extent of achievement of the intended results. The evaluation will be carried out using relevance, efficiency, effectiveness, sustainability and impact measures. A mid-term review will also be carried out. The implementation matrix will help track and monitor progress in the implementation of the Plan.
Figure 4: Monitoring and Evaluation Indicators

- **Monitoring and Reporting system established**
  - **MoH/KEMRI**
    - Actions
    - Outputs
    - Short-term
    - Long-term
    - Long-term
    - Impact
  - Other Stakeholders
    - Monitoring and Reporting system established
    - MoH/KEMRI

**Examples of Actions, Outputs and Outcomes**

- **Output Indicators**
  - Evidence based data to inform policy
  - Surveillance systems established
  - Novel prevention and control strategies/products
  - Improved awareness
  - Research products
  - Publication
  - Technology transfer

- **Examples of Actions, Output and Outcomes**
  - Research and Innovation
  - Capacity building
  - Resource mobilization
  - Partnership and collaborations
  - Service delivery
  - Funding
  - Established partnerships and collaborations
  - Improves Research, dissemination and training
  - Innovation and creativity
  - Publication
  - Technology transfer

**Evaluation**

- 2018
- 2019
- 2020
- 2021
- 2022

**Improved Clinical Outcomes**
- Improved Health lifestyles
- Embraced disease prevention strategies
**Table 11: IMPLEMENTATION MATRIX**

<table>
<thead>
<tr>
<th>Strategic Objective</th>
<th>Strategies</th>
<th>Activities</th>
<th>Key Performance Indicators (KPI)</th>
<th>Target</th>
<th>Budget</th>
<th>Responsibility</th>
</tr>
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<tbody>
<tr>
<td>Strategic Theme 1: Research and Innovation</td>
<td>To strengthen investment in health Research and innovation</td>
<td>Develop health research agenda</td>
<td>Assess research needs and define research for health priorities</td>
<td>Priority research agenda developed</td>
<td>1</td>
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<td></td>
<td></td>
<td></td>
<td>Participate in international priority research agenda setting (WHO Assembly, EAC, National TWG,)</td>
<td>No. of forums held</td>
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<tr>
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<td></td>
<td>Train county health management teams (CHMTs) on the various aspects of health research</td>
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<td>Conduct county and community engagement fora to develop and implement priority research agenda</td>
<td>No. of research activities</td>
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<td></td>
<td></td>
<td>Planning, convening and holding meetings to deliberate research programme agenda</td>
<td>No of Meetings held</td>
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<td>Strengthen research approval and implementation mechanisms</td>
<td>Strengthen research implementation oversight</td>
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<td>Carry out peer review and benchmarking</td>
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<td>Review and approve research proposals</td>
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<td>2018/2019</td>
<td>DRD, DSP &amp; GM</td>
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<td>Carry out quality control and quality assurance in research and innovation</td>
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<td>Develop research - evidence based clinical practice guidelines</td>
<td>2020/2021</td>
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<td>Review and implement guidelines/ regulations for conducting research projects</td>
<td>2022/2023</td>
<td>DRD, DS&amp;C</td>
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<td>Monitor and evaluate implementation of research projects</td>
<td>2021/2022</td>
<td>DRD, DS&amp;C</td>
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<td></td>
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<td>Conduct research on Universal Health Coverage</td>
<td>2022/2023</td>
<td>DRD, DS&amp;C</td>
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<td>Conduct research on human food security and nutrition</td>
<td>2022/2023</td>
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<td></td>
<td>Conduct Research on Health systems</td>
<td>2022/2023</td>
<td>DRD, DS&amp;C</td>
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- **Consolidate research under research programmes**
  - 2018/2019: 6
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  - 2020: 6
  - 2021: 6
  - 2022: 6
  - 2023: 6
- **Carry out quality control and quality assurance in research and innovation**
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  - 2019: 12
  - 2020: 12
  - 2021: 12
  - 2022: 12
  - 2023: 12
- **Develop research - evidence based clinical practice guidelines**
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  - 2019: 1
  - 2020: 1
  - 2021: 1
  - 2022: 1
  - 2023: 1
- **Review and implement guidelines/ regulations for conducting research projects**
  - 2018/2019: 1
  - 2019: 1
  - 2020: 1
  - 2021: 1
  - 2022: 1
  - 2023: 1
- **Monitor and evaluate implementation of research projects**
  - 2018/2019: 1
  - 2019: 1
  - 2020: 1
  - 2021: 1
  - 2022: 1
  - 2023: 1
- **Conduct research on Universal Health Coverage**
  - 2018/2019: 0
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  - 2020: 2
  - 2021: 3
  - 2022: 4
  - 2023: 5
- **Conduct research on human food security and nutrition**
  - 2018/2019: 0
  - 2019: 1
  - 2020: 2
  - 2021: 3
  - 2022: 4
  - 2023: 5
- **Conduct Research on Health systems**
  - 2018/2019: 0
  - 2019: 1
  - 2020: 2
  - 2021: 3
  - 2022: 4
  - 2023: 5

- **No. of programme priority research areas identified**
  - 2018/2019: 6
  - 2019: 6
  - 2020: 6
  - 2021: 6
  - 2022: 6
  - 2023: 6
- **No. of research teams formed**
  - 2018/2019: 6
  - 2019: 6
  - 2020: 6
  - 2021: 6
  - 2022: 6
  - 2023: 6
- **No. of programme priority research areas identified**
  - 2018/2019: 6
  - 2019: 6
  - 2020: 6
  - 2021: 6
  - 2022: 6
  - 2023: 6
- **No. of research teams formed**
  - 2018/2019: 6
  - 2019: 6
  - 2020: 6
  - 2021: 6
  - 2022: 6
  - 2023: 6
- **Audit reports**
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  - 2019: 12
  - 2020: 12
  - 2021: 12
  - 2022: 12
  - 2023: 12
- **No. of guidelines and regulations in place**
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  - 2020: 2
  - 2021: 2
  - 2022: 2
  - 2023: 2
- **No. of projects evaluated**
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  - 2020: 1
  - 2021: 1
  - 2022: 1
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- **No. of approved Audit report**
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  - 2022: 1
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- **No. of approved review report**
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  - 2021: 2
  - 2022: 2
  - 2023: 2
- **No. of new approved proposals**
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  - 2019: 2
  - 2020: 2
  - 2021: 2
  - 2022: 2
  - 2023: 2

- **Target Budget (Kes’ Million)**
  - 2018/2019: 35
  - 2019: 20
  - 2020: 25
  - 2021: 30
  - 2022: 35
  - 2023: 50

- **Key Performance Indicators (KPI)**
  - No. of programme priority research areas identified
  - No. of research teams formed
  - Audit reports
  - No. of guidelines and regulations in place
  - No. of projects evaluated
  - No. of approved Audit report
  - No. of approved review report
  - No. of new approved proposals
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<th>Strategic Objective</th>
<th>Strategies</th>
<th>Activities</th>
<th>Key Performance Indicators (KPI)</th>
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<th>Budget</th>
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<td>No of databases developed and integrated</td>
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- **Strategic Objective**: Strengthen research translation and knowledge management
- **Activities**:
  - Publish research findings
  - Organize conferences, symposia and workshops
  - Present research findings in scientific forums
  - Constitute research translation committee and hold regular policy dialogue meetings/forums
  - Translate research findings into policies and practice guidelines
  - Link researchers with policy makers
  - Hold regular media briefs
  - Hold Community engagement forums to disseminate research findings
  - Establish and operationalize a web based portal for dissemination of research findings
  - Develop and Integrate Databases
  - Capacity building on knowledge management and Knowledge translation

- **Key Performance Indicators (KPI)**:
  - No of publications
  - No of Abstracts
  - No organized
  - No of policy briefs
  - No of policy dialogue meetings
  - No of policy dialogue meetings
  - No of mechanisms
  - No of media briefs
  - No of research briefs
  - No of research briefs
  - No of forums held
  - No of databases uploaded on the portal
  - No of staff trained

- **Responsibility**:
  - DRD
  - DRD
  - DRD
  - DRD
  - DRD
  - DRD, DSP, P & GM
  - DRD
  - DRD
  - DRD
  - DRD
  - DRD
  - DRD
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<th>Strategic Objective</th>
<th>Strategies</th>
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<td>Develop a marketing strategy and implement</td>
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<td>Register and launch new products and innovations emanating from</td>
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<td>Sensitize collaborators on partnership policies and practice</td>
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<td>Monitor and evaluate collaborations and partnerships</td>
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<td>Strategic Objective</td>
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<td>Activities</td>
<td>Target</td>
<td>Budget (Kes' Million)</td>
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<td>Create and sustain Global competitive advantage</td>
<td>Facilitate registration of staff to relevant local and international professional bodies</td>
<td>2018/2019</td>
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<td>Strengthinnovations in research for human health</td>
<td>Adopt Precision medicine models in research and innovation</td>
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<td>Develop strategies and tools for disease surveillance and disaster preparedness</td>
<td>Map commercializable research products and innovations</td>
<td>2020/2021</td>
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<td>Liaise with the MOH and other relevant partners on disease surveillance</td>
<td>Develop tools for monitoring diseases of public health importance</td>
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<td>Capacity building on disease surveillance and disaster preparedness at county level</td>
<td>Training frontline institute health workers</td>
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Key Performance Indicators (KPI):

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<th>No of reports</th>
<th>No of staff trained</th>
<th>No of IPR/Patents applications</th>
<th>No. of products identified and commercialized</th>
<th>No of exchange programmes</th>
<th>No of SOPs developed and implemented</th>
<th>No of Technical Working Groups/Committees represented</th>
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## Strategic Theme 2: Corporate Governance

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<th>Percentage</th>
<th>Responsible Party</th>
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<td>Strengthen Legal framework</td>
<td>To review the existing Act under which KEMRI is established to harmonize with the Kenya constitution and other legislation</td>
<td>KEMRI Act</td>
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<td>Carry out legal audits to ensure compliance with the constitution, laws and all statutory requirements</td>
<td>Audit reports</td>
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<td>Develop and implement a case management policy for addressing litigation</td>
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<td>Realign KEMRI systems and structure</td>
<td>Review and establish a flat organizational structure</td>
<td>Reviewed approved structure</td>
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<td>Provide stewardship in the management of public resources</td>
<td>participatory budgets</td>
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<td>Decentralize Finance, procurement and HR functions</td>
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<td>Develop a decentralization policy</td>
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<td>Implement Quality Management Systems</td>
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<td>Apply Laboratory Accreditation</td>
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<td>Improve budgetary controls</td>
<td>Monthly income and expenditure reports</td>
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<td>Train staff on Governance</td>
<td>Restructure centres and programs to focus on mandate</td>
<td>Mainstream results based management and development</td>
<td>Monitor and Evaluate implementation of strategic plan, Institute policies and Government circulars</td>
<td>Establish M&amp;E management steering committee</td>
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<td>No of Officers trained on Governance</td>
<td>No Renamed and Rebranded</td>
<td>No of reports and briefs to management</td>
<td>No of M&amp;E management steering committee</td>
<td>No of meetings held</td>
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</table>

- No of Officers trained on Governance
- No Renamed and Rebranded
- No of reports and briefs to management
- No of M&E management steering committee
- No of meetings held
- No approved policy
- No of SOPs developed
- Proportion of research projects evaluated
- No of reports and briefs to management
- Digital integrated M&E system in place
- Establish an integrated digitized monitoring and evaluation system
- Establish a framework for data collection
- Establish a framework for data collection in place
- No of competent staff recruited
- Capacity building for researchers and M&E staff
- Recruit planning and M&E officers
- No of staff trained
- No of Annual Work Plans (AWPs)
- No of training/sensitization forums
- Developing of Annual Work Plans (AWP) based on strategic plan
- Review report
- Carry out midterm review of strategic plan
<table>
<thead>
<tr>
<th>No of projects evaluated</th>
<th>No of reports</th>
<th>No. benchmarked</th>
<th>No of databases developed and integrated</th>
<th>Procurement plan developed</th>
<th>% implementation of the Manual</th>
<th>Asset management policy developed and implemented</th>
<th>No of warehouses in place</th>
<th>No of databases developed and integrated</th>
<th>% disposal of identified assets</th>
<th>No of outreach activities</th>
<th>No of annual website visits</th>
<th>No of annual website visits</th>
<th>Level of implementation</th>
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<td>Develop annual programme, projects monitoring and evaluation schedule and carry out regular joint monitoring and evaluation exercise</td>
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<td>Benchmarking with local and international institutions and apply best practices in M&amp;E activities, findings, policies and other useful information</td>
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- DS&C, DRD
- DS&C
- DS&C
- DS&C
- DS&C
- HoD procurement
- HoD procurement
- HoD procurement
- HoD procurement
- DCS
- DCS
- DCS
- DCS

Note: The table summarizes the activities, outcomes, and key performance indicators for the development and implementation of an asset management policy in an institutional setting. The data includes the number of projects evaluated, reports generated, database benchmarking, procurement plan development, asset management policy implementation, and corporate social responsibility activities. The level of implementation is indicated in percentages or specific metrics.
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<td>Finalize and implement Career Progression guidelines</td>
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<td>Establish car loan and mortgage schemes</td>
<td>Proportion (%) of staff benefiting</td>
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<td>Provide inpatient and outpatient medical cover to all staff and dependents</td>
<td>Comprehensive medical cover in place</td>
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<td>Undertake and implement employee satisfaction and work environment survey</td>
<td>Employee satisfaction index</td>
<td>65</td>
<td>65</td>
<td>70</td>
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<tr>
<td></td>
<td></td>
<td>Percentage of recommendations implemented</td>
<td>40</td>
<td>100</td>
<td>40</td>
<td>100</td>
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<tr>
<td></td>
<td>Sign individual performance contracts and evaluate implementations</td>
<td>% staff with signed performance contracts</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<tr>
<td></td>
<td>Implement automated performance appraisal system</td>
<td>Percent of staff appraised</td>
<td>100</td>
<td>100</td>
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<td></td>
<td>Implement recommendations of performance appraisal</td>
<td>Percentage of recommendations implemented</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<tr>
<td></td>
<td>Develop and implement an incentive and sanctions framework</td>
<td>% implementation</td>
<td>100</td>
<td>100</td>
<td>100</td>
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<td>Develop and implement Conflict of Interest Policy</td>
<td>Approved Policy</td>
<td>1</td>
<td>0</td>
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<td></td>
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<td>Level of implementation of the Conflict of Interest policy</td>
<td>100</td>
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<td>Develop and implement Grievance Management Policy</td>
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<td>Level of implementation of the policy</td>
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<td>Implement government circulars on employee terms and conditions of service</td>
<td>% of circulars implemented</td>
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<tr>
<td><strong>Strategic Objective</strong></td>
<td></td>
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<tr>
<td>Upgrade infrastructure necessary for research for health</td>
<td></td>
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<tr>
<td>Construct and Upgrade research laboratories to accreditable standards</td>
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<td>No. of Labs upgraded/constructed</td>
<td>5</td>
<td>3</td>
<td>3</td>
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<td>Acquire cutting edge research equipment</td>
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<td>No. of major research equipment acquired</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>Develop a Centre of excellence in Genomics, Bioinformatics and Drug Discovery</td>
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<tr>
<td>% completion</td>
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<td>0</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>30</td>
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<td>Constructing Research facilities at county KEMRI Centres</td>
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<td>No of targeted facilities constructed</td>
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<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>Acquire and process title deeds for KEMRI parcels of land (Mbagathi way residential, Busia, Taveta)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>No of titles possessed</td>
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<td>1</td>
<td>1</td>
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<tr>
<td>Construction of KEMRI Vehicle Maintenance Unit at CPHR</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>% completion</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>100</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>Project Description</td>
<td>% Completion</td>
<td>No. of master plans developed</td>
<td>No. of barriers erected</td>
<td>No. of surveillance cameras installed</td>
<td>No. of vehicles acquired</td>
<td>No procured</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
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<td>Construction of multipurpose, multistory facility (CPHR + CMR)</td>
<td>% completion</td>
<td>0 20 60 100 0 500</td>
<td>0 0 10 100 0 20</td>
<td>0 0 45 20 20 29</td>
<td>5 5 5 5 5 150</td>
<td>0 0 0 1 0 12</td>
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<td>Master plan design for KEMRI centres including Kwale, Alupe, Kisian, Taveta and KNH</td>
<td>% completion</td>
<td>1 1 1 1 1 5.4</td>
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<td>1 2 1 0 0 4</td>
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<tr>
<td>Construction of research administration block at KEMRI HQ</td>
<td>% completion</td>
<td>0 20 60 100 0 500</td>
<td>0 0 10 100 0 20</td>
<td>0 0 45 20 20 29</td>
<td>5 5 5 5 5 150</td>
<td>0 0 0 1 0 12</td>
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<td>Construction of research regulation and coordination block at KEMRI HQ</td>
<td>% completion</td>
<td>0 0 0 25 50 250</td>
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<td>10 40 20 20 10 20</td>
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<td>Perimeter wall and sentry for CMR, KNH grounds &amp; CIPDCR</td>
<td>% completion</td>
<td>0 0 10 100 0 20</td>
<td></td>
<td>10 40 20 20 10 20</td>
<td></td>
<td></td>
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<td>Erect security barriers at all entrances</td>
<td>% completion</td>
<td>1 2 1 0 0 4</td>
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<td>0 0 45 20 20 29</td>
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<tr>
<td>Install security screening equipment</td>
<td>% completion</td>
<td>1 2 1 0 0 4</td>
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<td>10 40 20 20 10 20</td>
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<tr>
<td>Install Access control systems within buildings</td>
<td>% completion</td>
<td>10 40 20 20 10 20</td>
<td></td>
<td>10 40 20 20 10 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Install surveillance cameras</td>
<td>% completion</td>
<td>0 0 45 20 20 29</td>
<td></td>
<td>10 40 20 20 10 20</td>
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<tr>
<td>Renovate research and housing facilities at CIPDCR</td>
<td>% completion</td>
<td>0 50 100 0 0 10</td>
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<td>Install and commission an incinerator for CIPDCR</td>
<td>% completion</td>
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<td>Upgrade to plumbing systems for CIPDCR</td>
<td>% completion</td>
<td>0 50 100 0 0 10</td>
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<td>Acquire and maintain vehicles</td>
<td>% completion</td>
<td>5 5 5 5 5 150</td>
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<td>Equip CCR for phase I clinical trials</td>
<td>% completion</td>
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<td>10 40 20 20 10 20</td>
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<td>Procure an ambulance for CCR/staff clinic</td>
<td>% completion</td>
<td>0 0 0 1 0 12</td>
<td></td>
<td>10 40 20 20 10 20</td>
<td></td>
<td></td>
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<tr>
<td>Set up advanced cancer diagnostics and treatment facilities</td>
<td>% completion</td>
<td>0 20 40 60 100 40</td>
<td></td>
<td>10 40 20 20 10 20</td>
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<td></td>
</tr>
<tr>
<td>Task</td>
<td>% Allocation</td>
<td>% Implementation of Annual Repairs and Maintenance Plan</td>
<td>No. of Business Processes Automated</td>
<td>Number of Computers Bought and Commissioned</td>
<td>Number of Servers Bought and Commissioned</td>
<td>No. of Network Security System Implemented</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------</td>
<td>--------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>------------------------------------------</td>
<td>-------------------------------------------</td>
<td>---------------------------------------------</td>
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<tr>
<td>Operationalize sample management and repository facility</td>
<td>% allocation</td>
<td>60 100 0 0 0</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Carry out maintenance and repairs of facilities and equipment</td>
<td>% allocation</td>
<td>100 100 100 100 10</td>
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<tr>
<td>Develop and implement an infrastructure and equipment management policy</td>
<td>Approved policy developed</td>
<td>0 1 0 0 0</td>
<td>0 0 1</td>
<td>DCS</td>
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<tr>
<td>Automation of Core Institute processes</td>
<td>Deploy an ERP Solution</td>
<td>No. of Business processes automated</td>
<td>3 3 2 2 1</td>
<td>100</td>
<td>DCS</td>
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<tr>
<td>Acquire modern end user computers</td>
<td>Number of computers bought and commissioned</td>
<td>300 300 100 100 100</td>
<td>100</td>
<td>18</td>
<td>DCS</td>
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<tr>
<td>Acquire Servers</td>
<td>No of servers bought and commissioned</td>
<td>6 3 3 3 3</td>
<td>90</td>
<td>DCS</td>
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<tr>
<td>Implement network security system</td>
<td>No of network security system in place</td>
<td>1 0 0 0 0</td>
<td>0 11.9</td>
<td>DCS</td>
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<tr>
<td>Acquire backup solution for Collocation/ Replication/ Virtualization</td>
<td>No. of Backup system implemented</td>
<td>1 1 1 0 0</td>
<td>0 12.5</td>
<td>DCS</td>
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<tr>
<td>Upgrade VOIP and video-conferencing systems</td>
<td>No. VOIP and VC systems in place</td>
<td>1 2 2 2 2</td>
<td>2 4</td>
<td>DCS</td>
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<tr>
<td>Implement network (LAN, WAN) upgrades</td>
<td>No. of Centre networks upgraded</td>
<td>0 2 2 1 1</td>
<td>1 8</td>
<td>DCS</td>
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<tr>
<td>Digitize Library Information Services</td>
<td>% implementation</td>
<td>0 40 80 100 0</td>
<td>0 10</td>
<td>DCS</td>
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<tr>
<td>Set up a health information management system to support clinical services</td>
<td>% implementation</td>
<td>0 0 40 80 100</td>
<td>10</td>
<td>DCS</td>
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<tr>
<td>Establish Information Security Management Systems</td>
<td>% implementation</td>
<td>50 100 0 0 0</td>
<td>0 10</td>
<td>DCS</td>
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79
<table>
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<tr>
<th>Strategic Theme 4: KEMRI Graduate School of Health Research</th>
<th>Strategic Objective</th>
<th>Acquire appropriate data security systems</th>
<th>No of data sets secured</th>
<th>DCS</th>
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</thead>
</table>

| Pursue graduate school of Health sciences Charter | % achievement | 0 | 50% | 100% | 0 | 3 | DRCB |
| Design postgraduate courses/ curriculum | No. of courses designed | 10 | 10 | 12 | 12 | 15 | 5 | DRCB |
| Enroll students | No. of Msc students enrolled | 31 | 40 | 50 | 60 | 70 | 3 | DRCB |
| | No. of PhD students enrolled | 6 | 8 | 10 | 12 | 14 | 1 | DRCB |
| Recruit lecturers and supervisors | No. of lecturers | 12 | 12 | 12 | 12 | 12 | DRCB |
| Create a database of trained experts | Database report | 0 | 1 | 1 | 1 | 1 | 1 | DRCB |
| Implement a mentorship scheme for research leaders | No of mentorship programs | 1 | 1 | 1 | 1 | 1 | 0.5 | DRCB |
| Mainstream sandwich training programs with other institutions | No of programs mainstreamed | 1 | 1 | 1 | 1 | 1 | 0.5 | DRCB |

<table>
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<tr>
<th>Strategic Theme 5: Financial Sustainability</th>
<th>Strategic Objective</th>
<th>Sustain existing partnerships and collaborations and Seek new partnerships</th>
<th>Identify program areas for partnerships and collaboration</th>
<th>No. of new partnerships and collaborations</th>
<th>DRCB</th>
</tr>
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<tbody>
<tr>
<td>Strengthen existing funding networks</td>
<td>No. existing partnerships</td>
<td>45</td>
<td>45</td>
<td>45</td>
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<tr>
<td>Develop new funding networks</td>
<td>No. of MOUs and agreements signed</td>
<td>5</td>
<td>7</td>
<td>9</td>
<td>10</td>
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<tr>
<td>Mobilize research and infrastructural funding</td>
<td>Develop unsolicited proposals for infrastructural development</td>
<td>Amount sourced (Kes Million)</td>
<td>200</td>
<td>220</td>
<td>242</td>
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<tr>
<td>Engage the National Research Fund for increased allocation</td>
<td>Amount awarded by NRF(Kes Million)</td>
<td>100</td>
<td>120</td>
<td>144</td>
<td>173</td>
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<tr>
<td>Action</td>
<td>Description</td>
<td>Amounts</td>
<td>No. of Staff Deployed</td>
<td>Approved Policy</td>
<td>Percentage</td>
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<td>-----------------------------------------------------------------------</td>
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<tr>
<td>Lobby GoK for establishment of a dedicated KEMRI research fund</td>
<td>Amount dedicated (Kes’ Million)</td>
<td>320 440 550 600 800</td>
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<td>Identify funding calls and lobby for research funding</td>
<td>Amount of research grants (Kes Million)</td>
<td>6,142 6,756 7,432 8,175 8,993</td>
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<td>Engage public private partnerships</td>
<td>Number of partnerships</td>
<td>1 2 2 2 2</td>
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<tr>
<td>Engage local entities to partners in financing research</td>
<td>Amount of funds (Kes Million)</td>
<td>0 25 50 200 200</td>
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<td>17.5</td>
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<tr>
<td>Enhance income generation</td>
<td>No of staff deployed</td>
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<td>Develop a resource mobilization plan</td>
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<td>Conduct short courses on specialized skills</td>
<td>Number of courses developed and offered</td>
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<td>22.4</td>
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<td>Implement the Income generation policy</td>
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<td>Formulate a pricing policy for products and services</td>
<td>Approved Policy</td>
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<td>Expand current product line and volumes</td>
<td>Amount of revenue generated (Kes Million)</td>
<td>18.7 20.4 22.1 23.8 25.5</td>
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<td>KEMRI Graduate School</td>
<td>Amount of revenue generated (Kes Million)</td>
<td>7.7 10.8 13.3 15.8 18.3</td>
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<td>Provide Conferencing Services</td>
<td>Amount of revenue generated (Kes Million)</td>
<td>10 12 15 18 20</td>
<td></td>
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<td>Service Provided</td>
<td>Amount of revenue generated (Kes Million)</td>
<td>2010</td>
<td>2011</td>
<td>2012</td>
<td>2013</td>
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<td>------------------------------------------------------</td>
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<td>------</td>
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<td>Provide Consultancy services</td>
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<td>10</td>
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<td>12</td>
<td>13</td>
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<td>Provide Specialized Services</td>
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<td>26</td>
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<td>Earn Research Overheads</td>
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<td>614</td>
<td>680</td>
<td>750</td>
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<td>Rent and lease space to clients</td>
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<td>30</td>
<td>31</td>
<td>32</td>
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<td>Strengthen grants management</td>
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<td>Track global research program funding</td>
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<td>100</td>
<td>120</td>
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**Key**

**DRD** - Director of Research Development,
**DRCB** - Director of Research Capacity Building,
**DS&C** - Director of Strategy and Compliance,
**DSPP&GM** - Director of Scientific programmes, Partnerships and Grant Management,
**DCS** - Director of Corporate Services,
**CS** - Corporate Secretary