



REPUBLIC OF KENYA



NATIONAL BIOSAFETY AUTHORITY

CHAMPIONING FOR A BIOSAFE NATION



STRATEGIC PLAN 2023 – 2027



Publication of the National Biosafety Authority



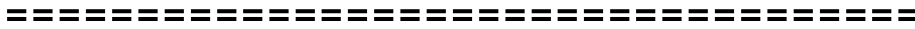


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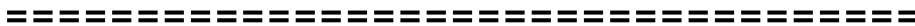


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NATIONAL BIOSAFETY AUTHORITY

VISION

A nation where genetically modified organisms (GMOs) are safe and beneficial

MISSION

To facilitate safe development, transfer, handling, and use of genetically modified organisms (GMOs)

CORE VALUES

- Good governance and integrity
- Professionalism
- Customer focus
- Inclusiveness
- Sustainability

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FOREWORD

The National Biosafety Authority (NBA) is proud to present its Strategic Plan for the period 2023-2027, a comprehensive framework to guide our efforts in regulating and overseeing activities involving genetically modified organisms (GMOs). This plan underscores our commitment to fulfilling our mandate as outlined in the Biosafety Act CAP 320.

In an era of rapid advancements in biotechnology, the Authority's role as a neutral regulator is more critical than ever. Our responsibility to supervise and control the transfer, handling, and use of GMOs ensures that innovations in this field contribute positively to societal needs while safeguarding human and animal health, as well as the environment.

This Strategic Plan aligns with the Fourth Medium Term Plan (MTP 4) of Vision 2030 and outlines clear strategies to build national capacity in biosafety, enhance public awareness, and strengthen regulatory frameworks. These measures are essential to adapting to the dynamic biotechnology landscape and maintaining regulatory effectiveness.

The cabinet decision to lift the 2012 ban on importation of GMO derived foods and feeds highlights the importance of strong regulatory systems that foster responsible innovation while protecting public health and environmental sustainability. As a neutral and impartial body, the Authority is committed to balancing these priorities through evidence-based decision-making and scientific rigor.

Guided by the principles of transparency, accountability, and collaboration, the Authority will continue to assess GMO applications impartially, promote informed decision-making through public awareness programs, and strengthen partnerships with stakeholders. By working closely with government agencies, research institutions, industry players, and the public, we aim to build trust and confidence in Kenya's biosafety regulatory system.

Implementation of this Plan will require sustained commitment, collaboration, and resources. The Board of Directors is dedicated to providing the necessary policy support and oversight to ensure the successful realization of the Plan's objectives.

On behalf of the Board of Directors, I extend my gratitude to all those who contributed to the formulation of this Strategic Plan, including our staff, stakeholders, and partners. Your input has been invaluable in shaping a progressive roadmap. We call upon everyone involved in the implementation to step forward in ensuring the success of the strategic plan.



PROF. JENESIO KINYAMARIO, PHD, MEIK, OGW, FWIF
CHAIRMAN, NBA BOARD OF DIRECTORS

PREFACE AND ACKNOWLEDGEMENT

The NBA Strategic Plan 2023–2027 is a reflection of our commitment to safeguarding human and animal health, protecting the environment, and fostering responsible innovation in modern biotechnology. This plan sets out strategic objectives across eight Key Result Areas (KRAs), each supported by targeted strategies to guide the Authority's efforts over the next five years.

The plan outlines our approach to enhancing public awareness of biosafety matters, strengthening legal and institutional policy frameworks, ensuring compliance with biosafety regulations, fostering international partnerships, improving biosafety information management and bolstering institutional growth and sustainability to enable efficient service delivery and enhanced public confidence in our regulatory functions.

The development of this Strategic Plan was an inclusive and consultative process. It incorporated input from diverse stakeholders, including government agencies, academic and research institutions, private sector actors, civil society organizations, and the general public. This participatory approach ensured that the plan is both relevant and responsive to the needs of our stakeholders and aligns with national and international biosafety priorities.

The Authority acknowledges and appreciates the invaluable contributions of all stakeholders who participated in the formulation of this roadmap. We recognize the efforts of the Authority's Board, management, and staff in spearheading and finalizing the plan. Your commitment has been instrumental in shaping a forward-looking framework that will guide our efforts to advance biosafety in the country. We extend our deepest gratitude to the Ministry of Agriculture and Livestock Development for its leadership and support throughout the planning process.

As we embark on this strategic journey, we invite all stakeholders to join us in implementing this plan and upholding biosafety in modern biotechnology.



NEHEMIAH K. NGETICH

AG. CHIEF EXECUTIVE OFFICER, NBA

DEFINITION OF CONCEPTS AND TERMINOLOGIES

Applicant: A person submitting an application pursuant to the provisions of Biosafety Act CAP 320

Authority: The National Biosafety Authority

Baseline: A description of the project/programme, against which initial state of an indicator before the start of a progress can be assessed or comparisons made.

Biosafety: The avoidance of risk to human health and safety, and the conservation of the environment, as a result of the use of genetically modified organisms

Bt Cotton: Type of genetically modified cotton that contains a gene from the bacterium *Bacillus thuringiensis* (Bt) that enables the cotton plant to produce a protein that is toxic to certain insect pests, especially the bollworm

Bt Maize: Type of genetically modified maize that contains a gene from the bacterium *Bacillus thuringiensis* (Bt) that enables the maize plant to produce a protein that is toxic to certain insect pests

Competent national authority: The officially designated authority within a country responsible for coordinating and communicating issues related to biosafety at the national and international levels

Contained use: any activity undertaken within a facility, installation or other physical structure which involves genetically modified organisms that are controlled by specific measures

External environment: The conditions, events and influences outside an organization that can affect its ability to achieve its goals and execute its strategies.

Genetically modified organism (GMOs): any organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology techniques

Indicator: a means for measuring progress/change that results from an intervention. It measures a change in a situation or condition and confirms progress towards achievement

Internal environment: The factors within an organization that influence its operations, strategy and ability to achieve its goals.

Key Performance Indicator (KPI): a measurement that evaluates the success of an organization or of a particular activity in which it engages

Key Result Area (KRA): key areas in which an organization must excel in order to achieve its mission and vision, and deliver value to customers

Modern biotechnology: includes the application of—in-vitro nucleic acid techniques including the use of recombinant deoxyribonucleic acid (DNA) and direct injection of nucleic acid into cells or organelles; or fusion of cells beyond the taxonomic family, that overcome natural physiological, reproductive and recombination barriers and which are not techniques used in traditional breeding and selection

Outcome: intermediate results generated relative to the objective of the intervention. It describes the actual change in conditions/situation as a result of an intervention

Output: A tangible product, service, or result produced through a set of activities

Protocol: The Cartagena Protocol on Biosafety

Strategic Goal: Broad, long-term aspirations that an organization aims to achieve.

Strategic Issues: fundamental policy choices, critical challenges/gaps or opportunities that must be addressed or tapped for the organization to achieve its vision. They are the foundation upon which strategies are developed

Strategic Objective: specifies what an organization expects to fulfil within a given period

Strategy: A planned approach or method used to achieve an objective

ACRONYMS AND ABBREVIATIONS

A-I-A	Appropriations in Aid
AU	African Union
AUDA-NEPAD	African Union Development Agency
BAE&CB	Biosafety Awareness, Education and Capacity Building
BCH	Biosafety Clearing House
BETA	Bottom-up Economic Transformation Agenda
BLM&S	Biosafety Licensing, Monitoring & Surveillance
BRE	Biosafety Risk Evaluation
Bt	Bacillus thuringiensis
CBD	Convention of Biological Diversity
COMESA	Common Market for East and Southern Africa
COP	Conference of the Parties
CPB	Cartagena Protocol on Biosafety
CS/DLS	Corporation Secretary/ Director Legal Services
CSR	Corporate social responsibility
DBAA&C	Director Biosafety Assessment, Awareness and Collaboration
DBC&E	Director Biosafety Compliance and Enforcement
DCS	Director Corporate Services
DDF&A	Deputy Director Finance and Accounts
DDHRM	Deputy Director Human Resource Management
DIA&RA	Director Internal Audit and Risk Assurance
EDMS	Electronic Document Management System
ERP	Enterprise Resource Planning
FAO	Food and Agriculture Organization
FAQ	Frequently Asked Question
GMOs	Genetically Modified Organisms
HOD(s)	Head(s) of Department
IBCs	Institutional Biosafety Committees
ICIPE	International Centre of Insect Physiology and Ecology
IEC	Information, Education and Communication
ILRI	International Livestock Research Institute
ISO	International Organization for Standardization
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KALRO	Kenya Agricultural and Livestock Research Organization
KMGBF	Kunming - Montreal Global Biodiversity Framework
KPIs	Key Performance Indicators
KRA	Key Result Area
LLP	Low-Level Presence
LS	Lab Services

MOP	Meeting of the Parties
MTP	Medium-Term Plan
NBA	National Biosafety Authority
PAO	Principal Administration Officer
PBS	Program for Biosafety Systems
PCO	Principal Communication Officer
PESTEL	Political, Economic, Social, Technological, Ecological and Legal
PICTO	Principal Information, Communication and Technology Officer
PPO	Principal Planning Officer
PRO	Principal Records Officer
QMR	Quality Management Representative
QMS	Quality Management System
SCAC	State Corporations Advisory Committee
SDGs	Sustainable Development Goals
SOPs	Standard Operating Procedures
SSCMO	Senior Supply Chain Management Officer
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

The Strategic Plan for the National Biosafety Authority has been developed in cognizance of its mandate pursuant to the Biosafety Act CAP 320 of the laws of Kenya. It provides direction for the Authority and defines priorities for the plan period 2023-2027. The Plan is aligned with the national, regional, international and other development priorities.

This plan defines the Authority's strategic direction, articulating its vision, mission, mandate and functions while laying the foundation for operational excellence. The Authority has presented its role in the national development priorities, regional and international development frameworks.

An evaluation of the Authority's previous strategic plan period (2020–2022) was conducted, identifying key achievements, challenges, and lessons learned. This evaluation, alongside a comprehensive environmental analysis, informed the development of targeted interventions aligned with the evolving biosafety landscape. Stakeholder perspectives were also integrated to ensure inclusivity, relevance, and alignment with both national and international biosafety priorities.

In line with the aforementioned analyses and the Authority's mandate, the following eight Key Result Areas (KRAs) were identified as the basis for developing a strategic map:

- Public awareness and education on biosafety
- Dynamic laws and institutional policies on biosafety
- Biosafety assessments
- Compliance and enforcement
- Biosafety information management
- International partnerships and collaborative engagement in the implementation of the protocol and the CBD
- Infrastructural and operational efficiency
- Human resource management

An appropriate implementation and coordination framework has been developed which describes how the strategic plan will be operationalized. A detailed implementation action plan that provides the operational framework to allow for effective implementation of the Strategic Plan is provided. A summary of key risks that may arise during the plan implementation have been highlighted and appropriate mitigation strategies recommended.

Projected financial resource requirements for implementation of the strategic plan over the plan period have been provided. The plan puts in place a monitoring, evaluation and reporting framework to track implementation of the Plan and provide feedback for timely corrective action towards attainment of the strategic goals.

CHAPTER ONE

INTRODUCTION

This introductory chapter sets the foundation for the National Biosafety Authority (NBA) Strategic Plan, highlighting the role of strategic planning in enabling the Authority fulfil its mandate effectively. It also explores the national development priorities, as well as regional and international development frameworks that have been considered in the development of this plan, illustrating how the Authority will contribute to the achievement of these priorities. Additionally, the chapter provides an overview of the Authority's historical background and details the methodology employed in the development of this Strategic Plan.

1.1 STRATEGY AS AN IMPERATIVE FOR ORGANIZATIONAL SUCCESS

The Authority is a State Corporation established under the Biosafety Act CAP 320 of the laws of Kenya to exercise general supervision and control over the transfer, handling and use of genetically modified organisms (GMOs) in Kenya. Since its inception, the Authority has evolved into a robust regulatory body achieving significant milestones in Biosafety management, stakeholder engagement, capacity building and automation of its services thus positioning it as a regional leader in Biosafety matters.

The Authority recognizes strategic planning as central to fulfilling its mandate within a volatile, complex and uncertain environment. A well-defined strategy provides the clarity, direction, and adaptability needed to ensure the Authority can navigate challenges, seize opportunities, and achieve its goals effectively.

The Authority's growth trajectory has previously been guided by three successive five-year Strategic Plans that have driven its transformation and impact, with each iteration building on lessons learned and achievements from previous cycles. These plans have enabled the Authority to align its objectives with national and global frameworks while maintaining a strong focus on its core mandate. The previous Strategic Plans have successfully delivered outcomes such as establishing and operationalizing a testing laboratory; enhanced Authority presence across the country; automated Authority services; strengthened stakeholder partnerships; and improved collections.

Building on this foundation, the 2023–2027 Strategic Plan is designed to act as a roadmap for further sustainable growth. The Plan adopts a proactive approach ensuring that the Authority optimizes its strengths, addresses weaknesses, capitalizes on emerging opportunities, and mitigates threats. A comprehensive analysis of the operating environment has informed the identification of strategic issues, that directly influence the Authority's performance and which guided the development of the Authority's goals.

To achieve these goals, the Authority has identified Key Result Areas (KRAs) which will act as focal points for resource allocation and performance evaluation. The plan further articulates well-thought-out strategies that are aligned with the identified KRAs. Through measurable objectives, actionable activities and a robust monitoring and evaluation framework, the plan ensures that strategic intentions are seamlessly translated into tangible outcomes.

The Authority has a rich history of being guided by its previous Strategic Plans, which have been instrumental in shaping its operational success. The 2023–2027 Strategic Plan builds on this, integrating past achievements with forward-looking strategies to guarantee the realization of the Authority's mandate.

1.2 THE CONTEXT OF STRATEGIC PLANNING

The development of this Strategic Plan acknowledges that the Authority operates within broader global, regional, and national policy, legal, and development frameworks. By aligning the Plan with these frameworks, the Authority ensures its initiatives contribute to the realization of shared goals. The Strategic Plan has been aligned to the following key frameworks:

- The United Nations 2030 Agenda for Sustainable Development.
- The African Union's Agenda 2063.
- The East African Community Vision 2050.
- Kenya Vision 2030, Bottom-up Economic Transformation Agenda and Fourth Medium Term Plan (MTP IV).
- The Constitution of Kenya and sector-specific policies and laws.

1.2.1 United Nations 2030 Agenda for Sustainable Development

The United Nations 2030 Agenda for Sustainable Development is a global action plan adopted in 2015 by all UN member states, including Kenya. It provides a shared blueprint for achieving peace and prosperity for people and the planet, now and into the future. The Agenda aims to address the world's most pressing challenges through a balanced and integrated framework of seventeen Sustainable Development Goals (SDGs), which encompass economic, social, and environmental dimensions. As a signatory, Kenya is committed to implementing this transformative agenda. The Authority will contribute towards the achievement of the following relevant SDGs:

To address **Goal 1: No Poverty**, the Authority will ensure the timely review and decision-making of GMO applications that tackle agricultural constraints and enhance productivity per unit. For **Goal 2: Zero Hunger**, similar efforts will be undertaken to help promote food security and sustainable agriculture by timely review and decision-making for GMOs that boost agricultural yields.

To support **Goal 3: Good Health and Well-being**, the Authority will continue to put up robust regulatory systems that ensures only safe and approved GMOs, that meet both international and national standards of food and environmental safety, are released to farmers and consumers

To facilitate the achievement of **Goal 13: Climate Action**, the Authority will approve safe drought-resilient GMOs to mitigate against desertification challenges, as well as safe in-built pest resistant GMOs to ensure less usage of pesticide chemicals, reduce greenhouse gas emissions and promote sustainable agriculture.

For **Goal 14: Life Below Water**, the Authority will continue to conduct transparent, science-based environmental risk assessments of GMOs to prevent adverse impacts on aquatic ecosystems. Similarly, for **Goal 15: Life on Land**, environmental risk assessments of GMOs will be conducted to conserve biodiversity and ensure sustainable land use. This includes the timely review and decision-making of GMOs that promote the sustainable use and management of land including drought-resilient GMOs to combat desertification, pest-resistant GMOs to reduce pesticide dependency, and GMOs tolerant to diseases and vectors.

Lastly, under **Goal 17: Partnerships for the Goals**, the Authority will foster collaborations through the Cartagena Protocol on Biosafety, to facilitate public awareness, knowledge sharing, and mechanisms for liability and redress. These collective efforts aim to strengthen implementation capacities and revitalize global partnerships for sustainable development.

Through these initiatives, the Authority aims to significantly contribute to the realization of a better and sustainable future for all.

1.2.2 African Union's Agenda 2063

The African Union (AU) Agenda 2063 lays down a master-plan for transforming Africa into a global powerhouse of the future. Anchored on seven aspirations and twenty specific goals, the Agenda outlines the path on how the continent can achieve the Pan African vision of an integrated, prosperous, and peaceful Africa, driven by its citizens, representing a dynamic force in the international arena. Kenya, as a member state, is actively working toward achieving the aspirations set in Agenda 2063. In alignment with this Agenda, the Authority will support the realization of the following aspirations and goals of the African Union:

Under **Aspiration 1: A Prosperous Africa based on Inclusive Growth and Sustainable Development**, the Authority contributes to multiple goals aimed at improving the well-being of citizens and fostering sustainable agricultural practices.

To achieve **Goal 1: A High Standard of Living, Quality of Life, and Well-Being for All Citizens**, the Authority will facilitate the timely approval of safe GMOs that improve agricultural productivity. These efforts aim to promote stable food supply, affordable food prices, and sustainable livelihoods.

In support of **Goal 3: Healthy and Well-Nourished Citizens**, the Authority is committed to upholding robust regulatory systems that guarantee the safety of approved GMOs. These efforts contribute to improved nutrition and overall public well-being.

To advance **Goal 5: Modern Agriculture for Increased Productivity and Production**, the Authority will focus on reviewing and approving safe GMOs that enhance crop yields and animal productivity, improve resilience to climate change, and reduce dependency on harmful agricultural chemicals. These efforts promote sustainable agricultural productivity and environmental conservation.

In line with fostering **environmentally sustainable and climate-resilient economies and communities (Goal 7)**, the Authority will conduct rigorous science-based environmental risk assessments of GMOs to ensure the conservation of biodiversity and advance sustainable agricultural practices. It will also approve safe GMOs, such as drought-resilient crops, tailored to thrive under shifting climatic conditions

Under **Aspiration 7: An Africa as a Strong, United, Resilient, and Influential Global Player and Partner**, the Authority plays an active role in positioning Africa as a key actor in global affairs and biosafety governance.

To support **Goal 19: Africa as a Major Partner in Global Affairs and Peaceful Coexistence**, the Authority will actively engage in implementing the Cartagena Protocol on Biosafety. It will participate in international biosafety dialogues, conferences, and capacity-building initiatives while ensuring its operations align with regional and global policies and development frameworks, reinforcing Kenya's commitment to international cooperation and sustainable development

Through these targeted actions, the Authority will play a role in ensuring a prosperous and resilient future for the continent.

1.2.3 East African Community Vision 2050

The East African Community Vision 2050 aims to catalyze the region to enhance transformation for growth and development, and guide the Community into an upper middle-income status by the year 2050. East Africans envisage a prosperous, competitive, secure and politically-united region by 2050.

The Vision is built on six pillars that are integral to the achievement of sustainable development. Kenya's participation in the EAC underscores its commitment to realizing this shared aspiration. In alignment with this Vision, the Authority will contribute to the achievement of the following pillars:

Under **Pillar 2: Agriculture, Food Security, and Rural Development**, the Authority supports the **Modernizing Agriculture goal** by ensuring the timely review and approval of GMOs that enhance productivity. This includes pest-resistant and drought-resilient GMOs. Additionally, in pursuit of the **Food Security and Nutrition**, the Authority will continue to institute strong regulatory frameworks to ensure that GMOs in the country align with national and regional food safety standards. These efforts are aimed at reducing hunger and malnutrition across the EAC region.

In line with **Pillar 4: Environment and Natural Resource Management**, the Authority is committed to contributing to the achievement of the **Sustainable Use of the Environment and Natural Resources goal** by conducting rigorous environmental risk assessments for GMOs. This ensures that approved GMOs do not negatively impact biodiversity or ecosystems. Furthermore, the Authority will contribute to **Climate Change Adaptation and Mitigation** by approving safe GMOs that can withstand extreme weather conditions, such as drought-tolerant crops. Additionally, it will facilitate the review and approval of safe GMOs that help lower greenhouse gas emissions by reducing the need for chemical inputs, such as pest-resistant crops.

Under **Pillar 5: Tourism, Trade, and Other Services Development**, the Authority will play a key role in the goal **Trade in Goods and Services and Trade Facilitation** by establishing transparent regulatory frameworks for the trade of safe GMOs and related products. By working in collaboration with regional bodies, the Authority seeks to harmonize biosafety standards and streamline trade processes, thereby fostering a more integrated and efficient market within the EAC.

Through the above initiatives, the Authority aims to contribute to a thriving and united East African Community.

1.2.4 Constitution of Kenya

The Constitution of Kenya 2010 recognizes the role of science and technology in development as well as protection of fundamental rights and freedoms of Kenyans against violations in areas some of which are pertinent to the mandate of the Authority.

The constitutional provisions include Article 11(2)(b) & (3)(b) which obligate the government to recognize and promote the role of science and technology in the development of the nation including the ownership of indigenous seeds and plant varieties and their genetic and diverse characteristics; Article 42 which guarantees every Kenyan the right to a clean and healthy environment; Article 43 which requires the government to devise mechanisms that assure Kenyans of freedom from hunger and provision of adequate food of acceptable quality; Article 46 which is designed to ensure programmes that guarantee protection of the health, safety and economic interest of Kenyans; and Article 69 confers a number of obligations on the government to ensure sustainable utilization and sharing of biodiversity and elimination of processes and activities that are likely to endanger the environment, among others.

The Authority is a statutory body bound under Article 2 and 3 to respect and uphold the Constitution and therefore execute its mandate of supervision and control over the transfer, handling and use of genetically modified organisms with a view to ensuring safety of human and animal health and provision of an adequate level of protection of the environment.

1.2.5 Kenya Vision 2030, Bottom- Up Economic Transformation Agenda and Fourth Medium Term Plan

Kenya Vision 2030, the Bottom-Up Economic Transformation Agenda (BETA), and the Fourth Medium-Term Plan (MTP IV) form the core of Kenya's development trajectory, with MTP IV (2023-2027) serving as the strategic framework for prioritizing key initiatives from both Vision 2030 and BETA. These initiatives focus on economic growth, social well-being, and political stability, ensuring Kenya progresses towards its long-term aspirations.

Vision 2030 is Kenya's long-term development blueprint aimed at transforming the country into a newly industrializing middle-income country providing a high quality of life to all its citizens in a clean and secure environment by the year 2030. It is structured around three pillars, namely: Economic, Social, and Political, which are anchored on eleven foundations. The Vision is implemented through successive five-year Medium-Term Plans (MTPs), with MTP IV (2023–2027) being the current iteration. The first, second and third MTPs were implemented in the period 2008-2012, 2013-2017 and 2018-2022 respectively.

The Authority will contribute to Vision 2030 through key priority sectors under each pillar:

1. **Economic Pillar**

- **Agriculture and Livestock:** The Authority will ensure the timely review and approval of safe GMOs that address agricultural constraints such as pests, diseases, and drought, ultimately enhancing productivity and food security.
- **Manufacturing:** It will facilitate the approval and monitoring of safe GMOs that can be used as raw materials in industries such as textile, e.g Insect-resistant cotton (Bt Cotton).
- **Blue Economy:** The Authority will conduct science-based assessments of GMOs to ensure they have no harmful impact on marine life or water quality, supporting a sustainable blue economy.

2. **Social Pillar**

- **Health:** Upholding robust regulatory systems that ensure only safe GMOs are approved for use.
- **Environment, Water, and Sanitation:** Conduct environmental risk assessments to protect ecosystems from potential adverse effects of GMOs, contributing to sustainable resource management.

3. **Political Pillar**

- **Devolution:** The Authority will collaborate with county governments to enhance public awareness and education on biosafety. It will also focus on decentralizing its services to ensure accessibility across counties.

The Bottom-Up Economic Transformation Agenda (BETA) is Kenya's current development agenda for 2022-2027. It is geared towards economic turnaround and inclusive growth through a value chain approach by targeting sectors with high impact to drive economic recovery. The BETA objectives are: bringing down the cost of living, eradicating hunger, creating jobs, expanding the tax base, improving foreign exchange balances and inclusive growth. These objectives will be achieved through targeted investments in five core pillars, namely: Agriculture; Micro, Small and Medium Enterprise (MSME) Economy; Housing and Settlement; Healthcare; Digital Superhighway and Creative Economy.

The Authority will contribute to the BETA in the following pillars, and their corresponding issues:

1. Agriculture

- To contribute to the BETA Manifesto target of raising productivity of value chains and reducing dependence on food imports by 30%, the Authority will expedite the review and approval of safe GMOs that enhance crop yields, animal production, animal feed conversion rates, disease resistance, pest resistance, and drought tolerance.
- To help revamp underperforming or collapsed export crops as per the BETA Manifesto, it will approve safe GMOs with resistance to persistent biotic and abiotic challenges, such as Bt Cotton, Bt maize, drought-tolerant maize, virus-resistant cassava, and fungal disease-resistant Irish potatoes among others.

2. Digital Superhighway and Creative Economy

- The Authority will enhance government service delivery by automating its services through the E-Citizen and KenTrade platforms, improving efficiency and accessibility.

The **Fourth Medium-Term Plan (MTP IV)** is a key driver of Vision 2030 and BETA. The Authority plays a significant role in contributing to the realization of the MTP IV. MTP IV 2023-2027 runs on the theme: "Bottom-Up Economic Transformation Agenda for Inclusive Growth", which focuses on achieving BETA and builds on the achievements and Lessons learnt from the implementation of the preceding MTPs of the Kenya Vision 2030.

The two identified BETA pillars will be implemented through key priority areas of MTP IV, especially the science, technology and innovation priority area by enhancing public education and awareness on Biosafety matters; monitoring and surveillance activities; and establishment of the Authority headquarters and state-of-the-art GMO testing laboratory to bolster its regulatory capacity.

1.2.6 Sector Policies and Laws

In line with the Constitution, the Cartagena Protocol on Biosafety and the National Biotechnology Development, the Biosafety Act CAP 320 was enacted to establish the National Biosafety Authority to exercise general supervision and control over the development, transfer, handling and use of Genetically Modified organisms to ensure safety of human and animal health and provide adequate protection of the environment.

The Biosafety Act CAP 320 outlines the operational jurisdiction of the Authority and identifies Regulatory Agencies that the Authority is required to maintain a consultative relationship with in matters of biosafety such as environmental protection, standards development, pest control, plant health and public health. To achieve this, the Authority recognizes other legislations as being key. These include the Standards Act, the Seeds and Varieties Act, Industrial Property Act, Science Technology and Innovation Act, Environmental Management and Co-ordination Act, Kenya Plant Health Inspectorate Service Act, Pest Control Products Act, Public Health Act and Wildlife Conservation and Management Act.

The Cartagena Protocol was ratified by the government in 2003 and domesticated into the Kenyan legislative framework on biosafety in 2009. The Strategic Plan thus is aligned with the legislative framework on biosafety framework and the provisions are consistent with the Biosafety Act CAP 320, Cartagena Protocol on Biosafety and its Implementation Plan 2020-2030.

During the Fifteenth session of Conference of Parties (COP 15) to the Convention on Biological Diversity (CBD) held in December 2022 in Montreal Canada, Parties adopted a number of key decisions that will enhance implementation of the CBD and its Protocols. Key among them was the adoption of the Kunming - Montreal Global

Biodiversity Framework (KMGBF) which is the overall framework which parties are expected to effectively implement.

The KMGBF, also referred to as the Global Biodiversity Framework supports the achievement of the Sustainable Development Goals and builds on the Convention’s previous Strategic Plans, sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. Among the Framework’s key elements are 4 goals for 2050 and 23 targets for 2030.

In adopting the KMGBF, all Parties committed to setting national targets to implement it. The Authority has aligned the biosafety related global target; Target 17 (*Establish, strengthen capacity for, and implement in all countries, biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity and measures for the handling of biotechnology and distribution of its benefits as set out in Article 19 of the Convention*). The Authority will contribute to the realization of the KMGBF by undertaking the initiatives set out below:

Table 1.6: Contribution of NBA to the Realization of KMGBF

Global Target (17)	Goals	Actions
Establish, strengthen capacity for, and implement in all countries, biosafety measures as set out in Article 8(g) of the Convention on Biological Diversity and measures for the handling of biotechnology and distribution of its benefits as set out in Article 19 of the Convention.	Goal B: Prosper with nature	<ul style="list-style-type: none"> • Put in place the necessary Biosafety legal and administrative measures for the implementation of relevant biosafety protocols and conventions • Undertake science-based assessments of GMO applications to support biosafety decision-making • Enhance surveillance, monitoring and GMO testing capacities • Upscale public awareness, participation, education and capacity building on biosafety matters at national and county level • Assess the benefits of ratifying the Nagoya – Kuala Lumpur Supplementary Protocol for decision-making by the government on accession.
	Goal C: Share benefits fairly	

1.3 HISTORY OF THE AUTHORITY

Kenya was the first country in the East African Region to draft biosafety guidelines following the enactment of the National Council for Science and Technology (NCST) Act in 1998. The Guidelines covered the importation and release of GMOs, and the establishment of the National Biosafety Committee (NBC) which served as a multi-stakeholder team whose role was to process applications on GMOs and advise the government on all issues dealing with biosafety and biotechnology.

The government of Kenya approved the National Biotechnology Development Policy in 2006 which provided policy direction in the safe application of biotechnology in the country. The Authority was established under Biosafety Act CAP 320 in 2010, with a mandate of ensuring the safe development, transfer, handling, and use of genetically modified organisms (GMOs) in Kenya. The Act aligns with Kenya's commitments under international agreements, including the Cartagena Protocol on Biosafety, to which Kenya has been a signatory since 2000.

Under the Biosafety Act CAP 320, the following Regulations have been developed; The Biosafety (contained use) Regulations, 2011; the Biosafety (Environmental Release) Regulations, 2011; the Biosafety (Import, export, and Transit) Regulations, 2011; and the Biosafety (Labelling) Regulations, 2012. The Authority was initially housed by the Ministry of Higher Education, Science and Technology before it was transferred to the Ministry of Agriculture and Livestock Development under the State Department for Agriculture as per the Executive Order No.1 of 2022.

1.4 METHODOLOGY OF DEVELOPING THE STRATEGIC PLAN

The Strategic Plan 2023-2027 was developed through a structured, inclusive, and participatory process involving internal and external stakeholders. The process adhered to the revised National Treasury Guidelines for the Preparation of Fifth-Generation Strategic Plans (2023–2027). This approach included the following key steps:

1. **Initiation:** The process was initiated by Management and integrated into the Authority's work plan and performance contract, with a dedicated budget to facilitate its achievement.

2. **Desk review of legal, policy and development frameworks:** A comprehensive review of relevant documents was undertaken to ensure the Strategic Plan aligns with the relevant frameworks including the Constitution of Kenya 2010, the Biosafety Act CAP 320, the Revised Guidelines for the Preparation of Fifth-Generation Strategic Plans (2023–2027), UN Sustainable Development Goals, African Union Agenda 2063, East African Community Vision 2050, Kenya Vision 2030 and the Fourth Medium-Term Plan (MTP IV), and the Bottom-Up Economic Transformation Agenda
3. **Internal Stakeholder Engagement and workshops:** Workshops were conducted with the Board, management and staff to foster inclusivity and ownership. These workshops focused on identifying strategic priorities and defining the Authority's strategic direction. Key activities included:
 - Formulating the Vision and Mission statements
 - Conducting situational and stakeholder analyses to understand the Authority's operating environment and identify strategic priorities and interventions.
 - Identifying strategic issues relevant to the Authority's operations
 - Developing KRAs, strategic objectives, strategies, and activities to guide the Authority's operations over the next five years
4. **Development and validation:** The draft Strategic Plan was developed based on insights gathered during workshops and stakeholder meetings. The draft was subjected to public participation and validation with various stakeholders to ensure its comprehensiveness and alignment with their expectations.
5. **Finalization and Approval:** The validated Strategic Plan was finalized, incorporating stakeholder feedback, and approved by the Board for launch and implementation.

This inclusive and structured approach enhances the Strategic Plan's capacity to drive efficiency, effectiveness, and ownership in its implementation, positioning the Authority to achieve its mandate and contribute meaningfully to sustainable national and regional development.

CHAPTER TWO

STRATEGIC DIRECTION

This chapter provides an overview of National Biosafety Authority, covering its mandate, vision, mission, core values, and quality policy statement.

2.1 MANDATE

The mandate of the National Biosafety Authority is to exercise general supervision and control over the transfer, handling and use of genetically modified organisms with a view to ensuring –

- (a) safety of human and animal health;
- (b) provision of an adequate level of protection of the environment.

The functions of the Authority as contained in the Biosafety Act CAP 320 are as follows:

- i. Consider and determine applications for approval for the development, transfer, handling and use of genetically modified organisms, and related activities in accordance with the provisions of the Biosafety Act CAP 320;
- ii. Co-ordinate, monitor and assess activities relating to the safe development, transfer, handling and use of genetically modified organisms in order to ensure that such activities do not have adverse effect on human health and the environment;
- iii. Co-ordinate research and surveys in matters relating to the safe development, transfer, handling and use of genetically modified organisms, and to collect, collate and disseminate information about the findings of such research, investigation or survey;
- iv. Identify national requirements for manpower development and capacity building in biosafety;
- v. Advise the Government on legislative and other measures relating to the safe development, transfer, handling and use of genetically modified organisms;
- vi. Promote awareness and education among the general public in matters relating to biosafety; and

- vii. Establish and maintain a biosafety clearing house (BCH) to serve as a means through which information is made available to facilitate exchange of scientific, technical, environmental and legal information on, and experience with, living modified organisms;
- viii. Perform any other function which is incidental to the performance of any of the foregoing functions.

Over and above the functions outlined in the Biosafety Act CAP 320, the Authority is the focal point for the implementation of the Cartagena Protocol on Biosafety, and as a focal point, the Authority is required to implement obligations outlined in the Protocol.

2.2 VISION STATEMENT

A nation where genetically modified organisms (GMOs) are safe and beneficial

2.3 MISSION STATEMENT

To facilitate safe development, transfer, handling, and use of genetically modified organisms (GMOs)

2.4 STRATEGIC GOALS

The Authority aims to achieve the following goals:

1. Increased public awareness, confidence and stakeholder engagement in Biosafety;
2. Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement;
3. Effective engagement, collaborations and partnerships in the global discourse on Biosafety governance;
4. Sustainable growth and institutional capacity for quality and efficiency in service delivery

2.5 CORE VALUES

- **Good governance and integrity**

The Authority embraces and practices good corporate governance. The Authority shall ensure that all processes and procedures are carried out with efficiency, effectiveness, and are ethical.

- **Professionalism**

The Authority prioritizes building and maintaining a highly-skilled and diverse workforce.

- **Customer focus**

The Authority is committed to serving its constituents by delivering programs that address their diverse needs.

- **Inclusiveness**

The Authority embraces corporate social responsibility and shall ensure that all decisions and actions are marked by human dignity, equity, social justice, inclusiveness, equality, human rights, non-discrimination, and protection of the marginalized.

- **Sustainability**

The Authority seeks to balance innovation and the protection of natural resources for future generations by prioritizing both revenue growth and environmental stewardship to create a self-sustaining model that funds its operations and advances its mission.

2.6 QUALITY POLICY STATEMENT

The National Biosafety Authority (NBA) is mandated to provide supervision and control over the development, transfer, handling and use of genetically modified organisms (GMOs). The Authority is committed to meeting its obligations and exceeding expectations of its clients and other stakeholders to ensure and assure safety of human and animal health as well as the provision of adequate level of protection to the environment.

The Authority shall comply with Quality Management System (QMS) based on ISO 9001:2015 Standard, and other statutory requirements. To deliver on its mandate, the Authority shall ensure that:

- a. An effective Quality Management System is established, implemented and continually improved;
- b. A level of service that ensures that its image is maintained; and
- c. Relevant statutory, regulatory requirements and best practices are complied with.

The Authority shall ensure that quality objectives associated with this policy are established and reviewed at least annually for continued suitability, taking into account changes in the Quality Management System and other relevant practices.

The Chief Executive Officer shall ensure that this Policy is communicated and understood within the Authority.

CHAPTER THREE

SITUATIONAL AND STAKEHOLDER ANALYSES

This chapter provides an analysis of the current operating environment of the Authority, the past performance, and identifies the key stakeholders who will be affected by the Strategic Plan. The insights gained from the analysis will help the Authority understand its position within the industry creating a basis for informed decision-making. It will also help to identify its strengths, weaknesses, opportunities and threats in the environment, and the needs, influences and expectations of its stakeholders.

3.1 SITUATIONAL ANALYSIS

There exist factors in the external and internal environments that affect the operations of the Authority. Analyzing the external environment enables the Authority to understand opportunities, threats and factors beyond its direct control but which may influence its success. In contrast, the internal environment includes elements that the Authority can manage and leverage to build strengths and address weaknesses. Evaluating the external and internal environment helps the Authority anticipate potential changes, adapt to external pressures, seize opportunities and navigate threats more effectively. Analysis of past performance helps to identify the key achievements, challenges and lessons learnt in order to improve the delivery of services by the Authority.

3.1.1 External Environment

The Authority as an institution is affected by various external factors, which can be categorized into the macro and micro environments

3.1.1.1 Macro Environment

The macro environment encompasses the broad political, economic, social, technological, environmental and legal elements that directly or indirectly affect the Authority's operations, performance and decision-making processes.

Political: The Authority operates in a dynamic political environment marked by policy re-orientation and the influence of advocacy groups. Shifting political landscapes introduce uncertainties into its operations. Lack of a harmonized regulatory framework for biosafety in East and Central Africa, creates inconsistencies in managing GMO

regulation. To mitigate these issues, the Authority advocates for the alignment of regional biosafety policies and regulations within frameworks like the EAC and the Common Market for Eastern and Southern Africa (COMESA). Aligning with government goals and objectives ensures policy synchronization and enhances coherence and effectiveness of biosafety governance. Additionally, leveraging government goodwill and engaging with devolved governments can strengthen its policy alignment and ensure smoother operations in a politically dynamic environment.

Economic: Prevailing macroeconomic conditions, including economic stability and growth trends, significantly influence the Authority's operations. Fluctuations in key economic variables affect revenue collection, budget financing and costs of operations, potentially limiting the Authority's ability to deliver on its mandate. To address these financial constraints, the Authority has devised a Resource Mobilization Strategy aimed at diversifying revenue sources and enhancing collection to ensure sustainable funding and operational resilience in the face of economic challenges.

Social: Demographic dynamics, including shifts in values, preferences, lifestyles, and population trends, influence societal behaviors regarding biosafety matters. Public attitudes and cultural factors play a crucial role in compliance and acceptance of biosafety initiatives. To respond effectively, the Authority prioritizes revamping its public relations and communication strategies. Enhanced awareness campaigns, tailored messaging, and proactive engagement with communities aim to align regulatory activities with public concerns, thereby fostering increased compliance and trust, while combating misinformation and potential reputational damage.

Technological: The rapidly evolving technological landscape presents both opportunities and risks. Advances in biotechnology and information and communication technologies (ICT) contribute to the potential obsolescence of existing systems while also raising cybersecurity concerns. To remain agile, the Authority adopts robust and secure ICT infrastructure in line with government enterprise architecture standards. By mapping vulnerabilities and implementing comprehensive security systems, the Authority ensures continuity in its functions and addresses the challenges posed by emerging technological threats.

Ecological: Environmental changes, including climate change, biodiversity loss and the emergence of new pests and diseases, necessitate proactive adaptation. The Authority acknowledges the importance of environmental stewardship in biosafety operations. To this end, it will conduct comprehensive environmental, food, and feed safety assessments, alongside rigorous inspection, monitoring and market surveillance to ensure compliance with the Biosafety Act CAP 320. Participation in broader environmental initiatives, such as tree planting and conservation efforts, the Authority's commitment to safeguarding biodiversity and natural resources.

Legal: The dynamic regulatory landscape presents challenges like legal gaps, overlapping frameworks, and risks associated with litigation and non-compliance. Ineffective coordination among agencies handling biosafety matters further complicates biosafety governance. In response, the Authority prioritizes enhanced stakeholder collaboration, reviews of the Biosafety Act CAP 320 and existing regulations, and the development of new regulations to address existing gaps. Strengthened monitoring and surveillance efforts are also integral to ensuring adherence to the legal framework and enhancing overall regulatory effectiveness.

3.1.1.2 Micro Environment

The Micro environment consists of factors within an Authority's immediate sphere that directly impacts its operations, decision-making and overall success. These elements are often within the Authority's influence and are key to shaping effective strategies.

Kenya has a well-educated and trained workforce, with strong skills in Biosafety and related disciplines. This resource provides the Authority with the intellectual capital necessary to maintain high service standards, foster innovation, and adapt to the dynamic nature of Biosafety challenges. To access and sustain this advantage, the Authority must offer competitive remuneration, continuous professional development, and effective succession planning.

Additionally, the customer profile for the Authority, including modern biotechnology developers, researchers, and the general public, demands high standards of service and transparency. Addressing customer complaints promptly, enhancing awareness of Authority services, and conducting regular customer satisfaction surveys are crucial for maintaining trust and credibility.

The Authority's relationships with suppliers, and development partners are critical for sustaining operations. Delays in payment or procurement can disrupt operations and tarnish the Authority's reputation. Streamlined procurement processes, prompt payments, and precise specifications for goods and services are necessary to ensure smooth interactions with suppliers and avoid service delivery bottlenecks. Divergent priorities, stringent funding conditions, and inadequate budgetary support can affect project implementation. To address these challenges, the Authority must foster partnerships with shared objectives, and diversify its resource mobilization strategies.

The microenvironment is a vital determinant of the Authority's ability to deliver on its mandate. The understanding and management of its factors will not only drive operational excellence but also reinforce the Authority's ability to thrive in a dynamic environment.

3.1.2 Summary of Opportunities and Threats

Based on the analysis of external environment, opportunities and threats are summarized below.

Table 3.1.2: Summary of Opportunities and Threats

Environmental Factor	Opportunities	Threats
Political	<ul style="list-style-type: none"> • Goodwill from Government • Political stability • Devolved governments • Supportive policy reforms 	<ul style="list-style-type: none"> • Unfavorable policy re-orientation • Geopolitical dynamics including differing positions and approaches to GMOs
Economic	<ul style="list-style-type: none"> • Improved productivity and through modern biotechnology • Increased revenue collection • Economic growth and rising consumer demand • Expansion of the Kenyan Port and Export Processing Zones (EPZs) 	<ul style="list-style-type: none"> • High cost of doing business • Inadequate financing of the budgets
Social	<ul style="list-style-type: none"> • Goodwill and strong relationship with stakeholders • Changing customer needs leading to demand of innovative solutions 	<ul style="list-style-type: none"> • Misinformation of the public on Biosafety • Negative public perception and reputation damage

Environmental Factor	Opportunities	Threats
Technological	<ul style="list-style-type: none"> • Advancements in the modern biotechnology space • Automation and digitization of Government services • Evolution of social media for mass communication • Leveraging technology to reduce operational costs and improve efficiency in service delivery • Improved connectivity • System efficiency and reduced turnaround time by Kenya Ports Authority (KPA) 	<ul style="list-style-type: none"> • Misuse of emerging technologies • Unintended adverse effects of modern biotechnologies • Cyber security threats. • False information about the Authority and on biosafety matters through social media platforms • Digital divide (in terms of access, age, literacy)
Ecological	<ul style="list-style-type: none"> • Climate change that demand adaptable technologies • Environmental conservation 	<ul style="list-style-type: none"> • Epidemics and pandemics such as COVID-19 • Adverse climatic changes • Environmental pollution • Biodiversity loss
Legal	<ul style="list-style-type: none"> • Review of the Biosafety Act CAP 320 • Alternative dispute resolution mechanisms • Compliance with the constitution of Kenya, legislations, government laws and directives, as well as international standards and guidelines on Biosafety 	<ul style="list-style-type: none"> • Litigation risks (the cost and slow pace of legislative reform) • International legal disparities • Compliance with International standards and protocols

3.1.3 Internal Environment

3.1.3.1 Governance and Administrative Structures

The Board of Directors is the top organ that provides the overall oversight over the management of the Authority. It provides strategic direction, exercises control and remains accountable through effective leadership, enterprise, integrity and good judgment. It is diverse in its composition, independent but flexible, pragmatic, objective and focused on balanced and sustainable performance of the Authority. The Board is composed of nine members who include four independent members, four institutional members and the Chief Executive Officer (CEO) as an ex-officio member.

The Board is structured into committees that closely examine various aspects of the Authority's operations and provide regular reports to the full Board. These committees are; the Audit Committee whose primary focus is on oversight and is responsible for reviewing the activities of the Authority's Management to ensure they align with the Authority's policies, government directives and legal provisions; the Finance and Administration Committee which scrutinizes the activities of the Authority's Management to ensure they adhere to principles of financial prudence and administrative efficiency; and the Technical Committee which assesses the Authority's Management activities related to the implementation of the Authority's core mandate. The Technical Committee further ensures that these activities align with the provisions of the Biosafety Act CAP 320 and relevant international conventions and protocols on Biosafety matters.

The Management of the Authority is headed by the CEO, who ensures effective and efficient management of the Authority's day-to-day operations. The office of the CEO is supported by six Directorates: Corporate Services; Corporation Secretary/ Legal Services; Internal Audit & Risk Assurance; Strategy & Planning; Biosafety Assessment, Awareness & Collaborations; and Biosafety Compliance & Enforcement. However, the Corporation Secretary and the Internal Audit & Risk Assurance functions have a dual reporting mandate, functionally to the Board and administratively to the CEO.

The Authority has various policies that govern its internal management affairs. These include Mwongozo, the Code of Governance for State Corporations, a 'critical building block in entrenching principles and values of public service and best practices in corporate governance' and the Human Resource Policy and Procedures Manual which constitute policies and procedures covering all aspects of human resources and employment regulations to support service delivery, commitments and obligations of the Authority.

3.1.3.2 Internal Business Processes

The Authority has put in place systems that guide the implementation of its core mandate and carries out its operations as stipulated in the Biosafety Act CAP 320. It is ISO 9001:2015 certified, a testament to its commitment to maintain high quality standards. The Authority has developed comprehensive policies, procedures and manuals for various departments that have continued to provide a road map for day-to-day operations.

Additionally, The Authority ensures compliance with laws and regulations, gives guidance for decision making and has streamlined internal processes. It has established protocols for conducting risk assessments on GMOs and other modern biotechnology products, along with procedures for mitigating and managing potential risks associated with relevant modern biotechnologies. To further bolster its regulatory mandate, the Authority has mechanisms in place for coordinating research activities, collaborating with stakeholders, and engaging the public to address concerns related to Biosafety.

ICT has been leveraged to enable digitization of the Authority's processes. A critical enabler of the Authority's efficiency is its Enterprise Resource Planning (ERP) system, which has digitalized key processes. Automation of workflows in areas such as finance, human resource, procurement and administration has enhanced efficiency, transparency, and accountability. Further, the Authority has automated services offered to external stakeholders such as the GMO-free certificates, No-Objection letters and Applications for Genome Editing, Applications for Import, Export and Transit of GMOs among others onto the E-citizen platform and Cargo clearance on the KenTrade platform. This has enhanced collections and efficiency in service delivery

On the budgeting and financial management, the Authority has developed processes for budgeting and financial management that prioritizes Biosafety Activities. The Authority has also established key performance indicators (KPIs) to measure the effectiveness of Biosafety programs and initiatives in achieving their goals.

For continual improvement, the Authority has implemented processes including regular reviews of biosafety protocols and procedures to incorporate lessons learned and emerging best practices, productivity mainstreaming, ISO audits and performance monitoring and evaluation.

3.1.3.3 Resources and Capabilities

The Authority's resources include financial, human and infrastructural assets that collectively enable it to fulfil its mandate.

Human resources are a critical asset, comprising a team of committed staff with the appropriate set of skills and know how to carry out the diverse specific tasks within the Authority. The Authority has continued to address the existing staffing gaps by revising the staff establishment and filling vacancies. It has also trained and purposes to continue training and building the skills of all its staff in pursuit of achieving its mandate.

Financial resources include government grants, funding from international development partners and collections of Appropriations-In-aid (A-I-A) among others. To address the reduction in exchequer allocations, the Authority has enhanced A-I-A collections by automating GMO services and revising service fees. The Authority has in addition developed strong internal controls on financial management, ensuring transparency, accountability, and efficient use of funds.

Infrastructural resources also play a significant role in supporting the Authority's functions. The Authority has access to state-of-the-art testing laboratory infrastructure for Biosafety inspections and assessments, as well as a robust ICT infrastructure that supports automation and efficient service delivery. Additionally, land has been secured for the construction of the headquarters, which will bolster operational capacity. Furthermore, the Authority has border posts offices and facilities at key points of entry and exit, enabling effective monitoring and enforcement of Biosafety regulations across the country.

Despite these strengths, the Authority faces challenges such as inadequate fleet capacity for operational activities and limited resources to fully support its expanding responsibilities. To mitigate these constraints, the Authority continues to strengthen collaborations with stakeholders and optimize resource utilization. By leveraging its financial, human, and infrastructural capabilities, the Authority remains committed to delivering efficient, high-quality services while addressing operational challenges through strategic planning and resource mobilization.

3.1.4 Summary of Strengths and Weaknesses

Table 3.2 shows the summary of strengths and weaknesses, based on the analysis of internal environment.

Table 3.2 Summary of Strengths and Weaknesses

Factor	Strengths	Weaknesses
Governance and administrative structures	<ul style="list-style-type: none"> • Diverse Board of Directors • Approved organizational structure by State Corporations Advisory Committee (SCAC). • A robust Institutional and Regulatory framework for Biosafety matters. • Established Operational NBA structures. • Adherence to Mwongozo 	<ul style="list-style-type: none"> • Inadequate coordination of implementation of international Conventions and Protocols on Biodiversity and Biosafety matters and access to biodiversity funds.
Internal business processes	<ul style="list-style-type: none"> • Certification to ISO and development of various policies and procedures • Digitization of Authority services • Automation of internal workflows 	<ul style="list-style-type: none"> • Slow process of automation and upgrading of key systems which support Authority processes • Inadequate performance management system • Inadequate fleet management system • Limiting timeframe on application approval
Resources and capabilities	<ul style="list-style-type: none"> • Government grants • A-I-A increasing with automation of NBA services • Effective internal controls on Financial Management • Committed staff • Good Working relationship with stakeholders • Testing laboratory infrastructure and ICT infrastructure in place • Availability of land for the Authority headquarters • Operational Border Posts offices and facilities at key points of entry and exit 	<ul style="list-style-type: none"> • Inadequate financial resources • Limited number of vehicles to carry out Authority operations • Limited office space

3.1.5 Analysis of Past Performance

The following section presents an assessment of key achievements and challenges.

3.1.5.1 Key Achievements

During the strategic plan period 2020-2022, the Authority made significant strides in advancing its mandate and enhancing Biosafety in the country. Notable achievements include the successful organization of two public engagement forums and partnerships with County Governments and international organizations such as UNEP, PBS, FAO, AUDA-NEPAD, and COMESA. The Authority achieved ISO 9001:2015 certification in 2022 and has managed to sustain the certification for its operations to date.

Key milestones include the development and approval of critical regulatory guidelines, including the Food/Feed Safety Assessment Guidelines, Environmental Risk Assessment Guidelines, harmonized Guidelines for Low-Level Presence and Co-existence, and the Genome Editing Guidelines. Efforts to ensure the relevance of the national biosafety framework resulted in the identification of potential revisions to the Biosafety Act CAP 320, including areas such as emerging technologies, Regulations on Labelling, Transport, Storage and Packaging, as well as membership of the Board.

The Authority commissioned the molecular laboratory for GMO testing in 2022 and initiated land acquisition for establishing a Regional Molecular Laboratory and its headquarters. The national Biosafety Clearing House was established and automation of cargo clearance through the Single Window System was introduced to facilitate faster entry of regulated cargo at points of entry.

All GMO applications received during the reporting period were screened, risk assessment conducted and decisions made and communicated in a timely manner to the applicants. This led to the approval of Bt Cotton commercialization in 2020, currently being cultivated in more than 20 counties, and the environmental release of Bt maize and virus-resistant cassava, which are progressing toward variety release, registration and commercialization.

The Authority has also enhanced its monitoring program for approved GMOs in research institutions and inspected five GMO facilities including Kenyatta University (KU), International Livestock Research Institute (ILRI), Kenya Agricultural and

Livestock Research Organization (KALRO), International Centre of Insect Physiology and Ecology (ICIPE) and Jomo Kenyatta University of Agriculture and Technology (JKUAT). Three Institutional Biosafety Committees (IBCs)s were registered including ILRI, KALRO, and ICIPE. GMO Market Surveillance activities in 2021/2022 covered 32 counties while in 2022/2023, surveillance expanded to 35 counties. 60 samples were tested for GMO presence in 2021/2022 with the number increasing to 100 in 2022/2023. Post-commercialization monitoring of Bt cotton was conducted in 19 counties, including Kisumu, Homabay, Machakos, Embu, and Mombasa.

Policy advice to the government included briefs on the gazettelement of Biosafety Inspectors as required by the Biosafety Act CAP 320; lifting of the ban on GMO food imports; Low-Level Presence (LLP) situations of GMOs and their derived products in imported consignments; import of raw materials for Animal feeds; levies, fees and charges by the Authority for harmonization by the East African Community and the draft Food and Feed Safety Control Coordination Bill, 2023. High-Level policy makers, lawyers and CEOs of Regulatory Agencies were sensitized on Biosafety Regulatory Framework.

The Authority recruited a new roster of biosafety experts and trained 35 of them in risk assessment and socio-economic impact assessment. The Biosafety Communication Strategy. Public awareness initiatives included three Annual Biosafety Conferences, participation in ASK trade fairs, distribution of brochures and FAQs on GMOs, and awareness forums in counties such as Nakuru, Busia, Mombasa, Kisumu, Garissa, Embu, Trans Nzoia, and Kajiado. Corporate Social Responsibility activities were undertaken, including tree planting initiatives and the donation of furniture.

On the global arena, the Authority participated in the 15th Conference of the Parties (COP)- Meeting of the Parties (MOP) in Montreal, Canada in 2022, negotiating on Biosafety related programs on behalf of the country. All the relevant Biosafety information was published in the BCH. Additional achievements include the operationalization of HR instruments, a car loan scheme, succession management policies, and the development and submission of 17 funding proposals to various development partners.

3.1.5.2 Challenges

Misinformation about GMOs and Biosafety matters as well as low levels of public awareness pose a significant challenge in fully discharging the Authority's mandate. Recruitment and retaining qualified personnel is a challenge, particularly in light of the rapid advancements in biosafety. Ensuring that biosafety research and development institutions comply with biosafety regulations demands resources and expertise for monitoring and enforcing compliance.

Ensuring that Kenya's regulations align with international norms while safeguarding national interests is a delicate balancing act, conducting thorough risk assessments for new biotechnological products and ensuring they are safe for human health and the environment is time-consuming and technically demanding.

Keeping up with emerging technologies, such as genome editing and synthetic biology, and adapting regulations to address new challenges and risks is an ongoing process, changes in government policies and political priorities can impact the implementation of biosafety regulations. Ensuring that the legal framework supporting biosafety regulation is clear, comprehensive, and up-to-date can be a complex bureaucratic and legislative process. Rapid change in technology and frequent court litigations that prevents the Authority from fully implementing its mandate continue to pose a challenge.

3.1.5.3 Lessons Learnt

It is crucial to invest in comprehensive public awareness and education campaigns to ensure that the general public understands the importance of biosafety. These campaigns should aim to dispel misconceptions and build trust in biosafety measures. Given the rapid advancements in biosafety, the Authority should prioritize continuous training and professional development for its staff to keep them updated with the latest developments in the field to enhance productivity and morale. Securing sufficient financial support is essential for the effective functioning of the Authority, thus the Authority should diversify its funding sources and step up advocacy efforts to increase its financial base, to support and enforce its mandate.

Collaborative efforts with other relevant agencies can also be beneficial, balancing international obligations, such as those under the Cartagena Protocol, with national

interests is essential, therefore the Authority should engage various stakeholders in diplomatic efforts. Collaboration and alignment of interests is crucial for effective biosafety regulation. Building relationships with stakeholders while safeguarding Kenya's interests should be a top priority. The Authority appreciates that risk assessments can be a rigorous process, it is a critical component of its mandate attainment.

Effective engagement with stakeholders is critical while developing relevant regulations. In addition, the Authority needs to ensure that the regulatory framework is reviewed to address new biotechnological challenges. Building bipartisan support can help mitigate the impact of political shifts. Developing robust data management systems is essential for effective regulation. The Authority should prioritize investing in technology and infrastructure to collect, store, and analyse data efficiently and ensuring that the legal framework supporting biosafety regulation is clear, comprehensive, and up-to-date.

3.2 STAKEHOLDER ANALYSIS

The Authority's stakeholders' mapping matrix showing the stakeholder, their role, expectation of the stakeholder and expectation of the Authority is depicted in Table 3.3.

Table 3.3 Stakeholder Analysis

No	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the Authority
1.	NBA Board and Staff	Technical and non-technical support Governance and oversight	<ul style="list-style-type: none"> • Conducive working environment • Competence and skills development 	<ul style="list-style-type: none"> • Commitment and professionalism • Achievement of targets • Transparency in all activities
2.	National Government	Provision of policy direction Financial oversight and provision of budget Link between the Authority and other relevant stakeholders	<ul style="list-style-type: none"> • To efficiently and effectively utilize resources. • Compliance with all relevant laws and circulars • Set ethical standards, enforcing rules of conduct and policy-making • Identify national requirements for manpower development and capacity building on biosafety. • Provide prompt, effective, and efficient services to citizens • Enforce use of financial management system for reporting • Implementation of policies and guidelines 	<ul style="list-style-type: none"> • Timely and adequate disbursement of resources to the Authority • Timely provision of accurate statutory information by the Ministry • Share information and data on preparation and implementation of budget • Provide feedback to the Authority on performance of its mandate • Partnerships in terms of regulating GMO • Develop Clear policies and procedures on public finance management • Compliance with the Authority's regulations and decisions. • Give direction on implementation of One-

No	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the Authority
				Government approach policy
3.	Judiciary	Handle litigations	<ul style="list-style-type: none"> • Implement court decisions • Adherence to provisions of relevant legislation • Transparency in the Authority's processes and decision-making 	<ul style="list-style-type: none"> • Expedite the hearing and disposal of cases in courts • Interpretation of Laws • Provide a platform for sensitization on GMO matters
4.	County Government(s)	<p>Dissemination of Biosafety information and extension services</p> <p>Provide for budgets in the County Integrated Development plans for Biosafety</p>	<ul style="list-style-type: none"> • Provision of simplified information on Biosafety • Training of their staff and extension officers on Biosafety matters • Uphold good governance 	<ul style="list-style-type: none"> • Dissemination of Biosafety information at the County level • Allocation of budget for Biosafety programmes at the County level
5.	Parliament	Legislation and oversight	<ul style="list-style-type: none"> • Prudent utilization of resources • Enforcement of regulations • Accountability and transparency in the Authority's operations and decision-making • Advise on relevant policies, legal and regulatory frameworks 	<ul style="list-style-type: none"> • Make budgetary provisions for funding the Authority's operations • Enactment and or review of Biosafety laws regularly to ensure that they conform to required standards • Provide general oversight mandate.
6.	Academic, Training, and Research Institutions	Engage in research on GMOs and produce skilled professionals	<ul style="list-style-type: none"> • Provide linkage between the academia and other bodies handling GMOs • Partner in applied research, policy formulation, and policy advocacy • Make timely decisions on GMO applications 	<ul style="list-style-type: none"> • Timely submission of reports • Partnerships and collaboration matters • Compliance with biosafety regulations

No	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the Authority
7.	Media	Mass dissemination of biosafety information to the public	<ul style="list-style-type: none"> • Transparency, and ease of access to Biosafety information • Respect and protection of the freedom of the press 	<ul style="list-style-type: none"> • Accurate, balanced reporting on Biosafety related matters. • Wider coverage on Biosafety matters
8.	Farmers and pastoralists	Food and livestock production Recipients of NBA services	<ul style="list-style-type: none"> • Availability of accurate and simplified biosafety information • Assurance of the safety of released GMOs • Efficient and effective services • Good governance 	<ul style="list-style-type: none"> • Compliance with Biosafety regulatory frameworks • Provision of accurate feedback
9.	Seed industry and private sector/businesses community	Avail approved biotechnology products Implement responsible stewardship programme	<ul style="list-style-type: none"> • Predictable and facilitative laws • Structured Public Private Partnership initiative • Fair distribution of available business opportunities • Uphold the values and principles in Biosafety Act CAP 320 of the laws of Kenya 	<ul style="list-style-type: none"> • Compliance to existing laws • Compliance to approval conditions • Timely delivery of goods and services
10.	Civil Society Organizations & NGOs	Advocacy, watchdog function and consumer protection	<ul style="list-style-type: none"> • Publish and publicize information on the discharge of the Authority's mandate • Prudent management of public resources • Compliance with the Authority's mandate 	<ul style="list-style-type: none"> • Participation in policy-making processes • Prompt submission of information • Regular consultations and engagements

No	Stakeholder	Role	Expectation of the Stakeholder	Expectation of the Authority
11.	Development Partners	Financial support, knowledge-sharing and technical expertise	<ul style="list-style-type: none"> • Prudent management of public resources • Ethical conduct • Transparency and accountability • Provide timely and accurate reports/information 	<ul style="list-style-type: none"> • Cooperation and partnerships • Financial support for the Authority's programmes and projects • Technical assistance in programmes • Sharing of information and knowledge
12.	Regulatory agencies *	Collaborate in the review of applications and information-sharing	<ul style="list-style-type: none"> • Capacity building on risk assessment and emerging technologies • Provision of platform for information-sharing to enable them implement their mandate under the Biosafety Act CAP 320 	<ul style="list-style-type: none"> • Timely review of applications • Sharing of information to assist the Authority implement its mandate • Compliance with the Biosafety Act CAP 320 and regulations
13.	General Public	Recipient of NBA services	<ul style="list-style-type: none"> • Assurance of the safety of released GMOs • Efficient and effective services and information-sharing • Good governance 	<ul style="list-style-type: none"> • Comply with the regulations and guidelines of the Authority • Receive objective and accurate feedback
14.	Suppliers	Provision of goods, works and services	<ul style="list-style-type: none"> • Timely payments of goods and services • Transparency and fairness in the procurement processes • Compliance with the procurement laws 	<ul style="list-style-type: none"> • Supply of quality and competitive goods and services • Compliance with the procurement laws • Adherence to provisions of the contract

* Department of Public Health, Department of Veterinary Service (DVS), Kenya Bureau of Standards (KEBS), Kenya Plant Health Inspectorate Services (KEPHIS), Kenya Industrial Property Institute (KIPI), Kenya Wildlife Service (KWS), Pest Control Products Board (PCPB), National Environment Management Authority (NEMA)

CHAPTER FOUR

STRATEGIC ISSUES, GOALS, AND KEY RESULT AREAS

This chapter identifies the critical strategic issues facing the Authority, outlines the goals to address these challenges, and further defines the KRAs necessary for achieving the desired outcomes.

4.1 STRATEGIC ISSUES

The Authority has identified four strategic issues relevant to its operations. Addressing these issues will be a priority for the Authority in its pursuit of achieving its vision. These include:

- i. **Low level of public engagement and understanding of Biosafety matters:** Many citizens and stakeholders are unaware of the importance of biosafety or the role the Authority plays in safeguarding public health and the environment. This low level of awareness hampers compliance with biosafety protocols and reduces public trust in the system.
- ii. **Stakeholder demand for a more efficient Biosafety regulatory framework:** Both product developers and consumers place a great premium on an efficient and effective Biosafety institutional and regulatory framework that is responsive to advances in modern biotechnology, predictable and science-based. A framework that is facilitative of innovation while ensuring the safety of the Kenyan people in the development, handling, transfer and use of GMOs, the principal products of modern biotechnology.
- iii. **Inadequate coordination for the implementation of international conventions and protocols on Biosafety:** NBA is Kenya's National focal point and competent Authority for the implementation of the Cartagena Protocol on Biosafety (CPB) under the Convention on Biological Diversity (CBD). In this capacity, the Authority provides leadership to Kenyan delegations in the global engagements within the context of implementing the Cartagena Protocol on Biosafety. The Authority therefore bears the responsibility of effectively articulating Kenya's position in these engagements within the context of the African Group of Negotiators under the African Union.

- iv. **Inadequate institutional capacity of NBA to effectively undertake its mandate:** Inadequate resources within the Authority can pose significant challenges to its ability to fulfil its mandate effectively. The Authority will continuously build capacity of staff and physical infrastructure, leverage technology for its operations, strengthen internal controls and quality management systems and enhance its visibility and corporate image.

4.2 STRATEGIC GOALS

The Authority has established strategic goals representing the desired outcomes from addressing the identified strategic issues. The following are the four strategic goals guiding this plan:

- i. Increased public awareness, confidence and stakeholder engagement in Biosafety;
- ii. Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement;
- iii. Effective engagement, collaborations and partnerships in the global discourse on Biosafety governance;
- iv. Sustainable growth and institutional capacity for quality and efficiency in service delivery.

4.3 KEY RESULT AREAS

The Key Result Areas (KRAs) are the specific focus areas required to achieve the strategic goals. The strategy has identified eight KRAs which the Authority will prioritize in the next five years in the pursuit of realizing its mandate

KRA 1: Public Awareness and Education on Biosafety

This KRA seeks to address the current gap in public understanding and awareness of Biosafety and the Authority's role in protecting health and the environment. The focus is on targeted education initiatives, stakeholder mapping, and engagement strategies. By increasing awareness, this KRA aims to foster public trust, encourage adherence to Biosafety protocols, and strengthen stakeholder involvement in Biosafety matters.

KRA 2: Dynamic Laws and Institutional Policies on Biosafety

This KRA focuses on ensuring that Kenya's Biosafety policies and legal frameworks remain responsive to advances in biotechnology and emerging challenges. It involves the regular

review, development, and implementation of dynamic policies and regulations that align with national and international standards. By maintaining a robust and adaptable legal system, this KRA seeks to safeguard human and environmental health while accommodating compliant innovation in the biotechnology sector.

KRA 3: Biosafety Assessments

This KRA is designed to minimize risks associated with GMOs through science-based assessments and risk management practices. It emphasizes strengthening GMO risk assessment to ensure that all GMO-related activities comply with the highest safety standards, protecting public health and the environment.

KRA 4: Compliance and Enforcement

This KRA focuses on adherence to the Biosafety regulatory framework by enhancing the efficiency and transparency of compliance mechanisms. It focuses on automating Biosafety management processes, enforcing compliance measures for GMO applicants, and monitoring regulatory adherence. By fostering accountability and ensuring strict enforcement, this KRA aims to build a robust regulatory environment that prioritizes public safety and environmental protection.

KRA 5: Biosafety Information Management

This KRA focuses on establishing a system for storing biosafety information and databases on GMOs and related activities. It aims to improve the accessibility, transparency, and quality of Biosafety-related information for stakeholders, ensuring informed decision-making. This KRA emphasizes effective information sharing, contributing to a well-informed Biosafety ecosystem.

KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD

This KRA addresses the Authority's role in upholding Kenya's commitments to international Biosafety standards, particularly the Cartagena Protocol on Biosafety and related agreements. The focus is on proactive participation in global and regional Biosafety discussions, and collaboration with global stakeholders. This KRA seeks to promote international partnerships in Biosafety and advance Kenya's leadership and compliance in Biosafety.

KRA 7: Infrastructural and Operational Efficiency

This KRA focuses on enhancing the Authority’s long-term operational effectiveness by improving physical infrastructure, optimizing ICT systems, strengthening internal controls and enhancing quality management systems to meet evolving operational demands. These efforts aim to optimize service delivery, ensure compliance with international best practices, and enhance the Authority’s ability to fulfill its mandate effectively.

KRA 8: Human Resource Management

This KRA aims to build a competent and motivated workforce to support the Authority’s mandate. It seeks to strengthen institutional capacity by attracting, developing, and retaining skilled personnel. It encompasses initiatives such as staff capacity-building programs, performance management, and employee well-being strategies. This will ensure continuous professional growth, a positive work environment and enhanced staff productivity and satisfaction, fostering a high-performance culture within the organization.

The following table outlines the KRAs with their corresponding strategic issues and goals, forming the foundation for tracking success throughout the implementation process.

Table 4.1: Strategic Issues, Goals and KRAs

Strategic issue	Goals	KRAs
Low level of public engagement and understanding of Biosafety matters	Increased public awareness, confidence and stakeholder engagement in Biosafety.	KRA 1: Public Awareness and Education on Biosafety
Stakeholder demand for a more efficient Biosafety regulatory framework	Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement	KRA 2: Dynamic Laws and Institutional Policies on Biosafety
		KRA 3: Biosafety Assessments
		KRA 4: Compliance and Enforcement
		KRA 5: Biosafety Information Management

Strategic issue	Goals	KRAs
<p>Inadequate coordination for the implementation of international conventions and protocols on Biosafety</p>	<p>Effective engagement, collaborations and partnerships in the global discourse on Biosafety governance</p>	<p>KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD</p>
<p>Inadequate institutional capacity of NBA to effectively undertake its mandate</p>	<p>Sustainable growth and institutional capacity for quality and efficiency in service delivery</p>	<p>KRA 7: Infrastructural and operational efficiency</p> <p>KRA 8: Human Resource Management</p>

CHAPTER FIVE

STRATEGIC OBJECTIVES AND STRATEGIC CHOICES

This chapter presents the strategic framework guiding the organization towards fulfilling its mandate and long-term goals. It discusses the strategic objectives aligning to the identified KRAs and their corresponding strategies.

5.1 STRATEGIC OBJECTIVES

Strategic objectives are the specific results that the Authority aims to achieve in order to fulfil its mission and vision. This section contains the Authority’s strategic objectives for which annual outcome indicators projections for the next five years are identified as shown in Table 5.1.

Table 5.1: Outcomes Annual Projections

Strategic objectives	Outcome	Outcome indicator	Projections				
			Year 1	Year 2	Year 3	Year 4	Year 5
KRA 1: Public Awareness and Education on Biosafety							
To enhance public awareness, participation and understanding of biosafety matters.	Enhanced public understanding of Biosafety through awareness programs, educational forums and effective corporate communication	% change of public awareness	-	-	5%	-	5%
KRA 2: Dynamic Laws and Institutional Policies on Biosafety							
To strengthen and sustain a functional legal and institutional policy framework on Biosafety	Regulation of emerging technologies	No. of modern biotechnologies brought under the Authority regulatory framework	1	-	-	-	3

Strategic objectives	Outcome	Outcome indicator	Projections				
			Year 1	Year 2	Year 3	Year 4	Year 5
KRA 3: Biosafety Assessments							
To ensure that only approved GMOs are in the market	Reduced risk of exposure to unapproved GMOs	% of the GMO and GMO-derived products in the market that are approved	100%	100%	100%	100%	100%
KRA 4: Compliance and Enforcement							
To enhance adherence to GMO regulatory framework	Enhanced compliance with the Biosafety regulatory framework	% level of compliance by the licensees	100%	100%	100%	100%	100%
		% level of monitoring and enforcement by the Authority	100%	100%	100%	100%	100%
KRA 5: Biosafety Information management							
To improve the management, accessibility and quality of national biosafety information for effective regulation	Enhanced management and accessibility of national biosafety information for effective regulation	Biosafety information module developed within the Electronic Document Management System (EDMS)	-	-	-	-	1
KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD							
To promote compliance with international obligations under the Protocol	Enhanced implementation of the Cartagena Protocol on Biosafety under the CBD	% level of implementation of nationally adopted decisions (%)	100%	100%	100%	100%	100%

Strategic objectives	Outcome	Outcome indicator	Projections				
			Year 1	Year 2	Year 3	Year 4	Year 5
To foster strategic partnerships and collaborations to strengthen Biosafety governance	Improved global engagement	No. of MOUs drafted for collaboration with other countries and their competent national authorities to the CPB	-	-	-	-	3
KRA 7: Infrastructural and Operational Efficiency							
To improve physical infrastructure	Enhanced institutional infrastructure	Additional Border offices established	-	3	2	2	2
		pre-construction approvals of the laboratory and proposed headquarters	-	-	35%	50%	15%
To enhance the Authority's operational efficiency	Enhanced productivity and internal controls	Productivity index	2.8	2.9	3.0	3.1	3.2
To enhance the corporate image of the Authority	Positive public perception of the Authority	% change in the Public Perception Survey	-	-	Baseline	-	5%
KRA 8: Human Resource Management							
To enhance the workforce capacity	Improved staff performance	Skills gap analysis report	1	1	-	-	1

5.2 STRATEGIC CHOICES

Strategic choices are the decisions that the Authority makes about how it will achieve its strategic objectives.

This section contains the Authority's strategic objectives for which the respective strategies under each of the Key Result Areas are captured in Table 5.2

Table 5.2: Strategic Objectives and Strategies

KRA	Strategic Objectives	Strategies
KRA 1: Public Awareness and Education on Biosafety	1. To enhance public awareness, participation and understanding of Biosafety matters.	i. Establish a framework for stakeholder engagement
		ii. Engage stakeholders
		iii. Strengthen capacity of stakeholders on Biosafety and modern biotechnologies
KRA 2: Dynamic Laws and Institutional Policies on Biosafety	2. To strengthen and sustain a functional legal and institutional policy framework on Biosafety	i. Review the legal and regulatory framework governing biosafety
		ii. Strengthen NBA institutional policies
KRA 3: Biosafety Assessments	3. To ensure that only approved GMOs are in the market	i. Strengthen GMO risk assessment procedures

KRA	Strategic Objectives	Strategies
		ii. Automation of Biosafety application processes
KRA 4: Compliance and Enforcement	4. To enhance adherence to GMO regulatory framework	i. Enforce the Biosafety legislative framework for dealers in GMO
		ii. Strengthen capacity of stakeholders to comply with the Biosafety legislative framework
KRA 5: Biosafety Information management	5. To improve the management, accessibility and quality of national biosafety information for effective regulation	i. Establishment of a system for managing biosafety information
KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD	6. To promote compliance with international obligations under the Protocol	i. Ensure compliance with the international obligations of the Cartagena Protocol
	7. To foster strategic partnerships and collaborations to	i. Mutual recognition of biosafety assessments with

KRA	Strategic Objectives	Strategies
	strengthen Biosafety governance	other relevant national competent authorities on Biosafety
KRA 7: Infrastructural and Operational Efficiency	8. To improve physical infrastructure	i. Develop physical infrastructure and acquire assets for Authority's use
	9. To enhance the Authority's operational efficiency	i. Strengthen institutional productivity
		ii. Strengthen internal controls
	10.To enhance the corporate image of the Authority	i. Increase brand recognition
		ii. Strengthen media relations
		iii. Improve customer engagement and feedback mechanism
KRA 8: Human Resource Management	11.To enhance workforce capacity	i. Strengthen human resource management

CHAPTER SIX

IMPLEMENTATION AND COORDINATION FRAMEWORK

This chapter discusses the implementation and coordination framework for the Strategic Plan. The implementation framework outlines how the Strategic Plan will be operationalized, and the coordination framework outlines how different stakeholders will work together to ensure the successful implementation of the plan.

6.1 IMPLEMENTATION PLAN

The implementation plan consists of the action plan, budgeting, and a commitment to have the performance contract delivered from the annual work plans, which will be extracted from the Implementation Matrix.

6.1.1 Action Plan

The Action Plan outlines the comprehensive roadmap for achieving the Authority's strategic goals. Presented in Table 6.1, the plan breaks down each strategic goal into actionable steps, providing a structured approach to address the strategic issues identified over a period of 5 years. This detailed plan describes the activities to be undertaken for each KRA, the results to be achieved each year, criteria to assess success, financial resources allocated to each activity, and the designated parties responsible for each activity.

Table 6.1: Implementation Matrix

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Low level of public engagement and understanding of Biosafety matters																
Strategic Goal: Increased public awareness, confidence and stakeholder engagement in Biosafety																
KRA 1: Public Awareness and Education on Biosafety																
Outcome: Enhanced public understanding of Biosafety through awareness programs, educational forums and effective corporate communication																
Strategic Objective: To enhance public awareness, participation and understanding of Biosafety matters																
Strategy 1: Establish a framework for stakeholder engagement	Continuous mapping of stakeholders	Database of stakeholders	No. of stakeholder groups identified	20	14	-	2	2	2	2	-	2.5	3	3.5	DBAA&C	DCS HOD, BAE&CB PCO
			No. of meetings for stakeholder groups net-mapping	3	-	-	1	1	1	-	-	2.5	3	3.5	DBAA&C	DCS HOD, BAE&CB PCO
	Develop strategies/ plan for engagement	Engagement strategies for the different stakeholder groups	No. of strategies developed	1	-	-	1	-	-	-	-	4	-	-	DBAA&C	DCS HOD, BAE&CB PCO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategy 2: Engage stakeholders	Host continuous stakeholder meetings on Biosafety matters	Workshops, meetings, seminars, forums, symposiums, tours, conference, exhibitions, shows, webinars, retreats, and roadshows on Biosafety matters	No. of engagements	100	10	15	20	25	30	20	25	60	65	75	Directors, Technical	DCS HODs, Technical PCO
Strategy 3: Strengthen capacity of stakeholders on Biosafety and modern biotechnologies	Train and educate relevant stakeholders on Biosafety and modern biotechnologies	Develop and implement the Biosafety training manual	No. of modules developed	6	-	3	3	-	-	-	2.5	3	-	-	DBAA&C	DCS HOD, BAE&CB PCO
		Identified stakeholders trained on the modules	No. of stakeholders trained	110	-	10	20	30	50	-	1.5	2.5	3	4	DBAA&C	DCS HOD, BAE&CB PCO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Stakeholder demand for a more efficient Biosafety regulatory framework																
Strategic Goal: Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement																
KRA 2: Dynamic Laws and Institutional Policies on Biosafety																
Outcome: Regulation of emerging technologies																
Strategic Objective: To strengthen and sustain a functional legal and institutional policy framework on Biosafety																
Strategy 1: Review the legal and regulatory framework governing biosafety	Build capacity of staff on legislative drafting	Officers trained on legislative drafting	No. of officers trained	20	-	-	-	8	12	-	-	-	2	3.2	CS/DLS	Directors, Technical DCS DDHRM
	Undertake gap analyses on the Biosafety Act CAP 320 and Regulations	Gap analyses reports	No. of gap analyses reports	5	-	1	-	4	-	-	-	3.2	10	-	CS/DLS	Directors, Technical DCS HODs, Technical
	Initiate and participate in the review of the Biosafety Act CAP 320 and Regulations	Biosafety Act CAP 320 and Regulations reviewed and drafted	Biosafety amendment bill No. of draft regulations	5	-	-	1	-	5	-	-	20	-	30	CS/DLS	Directors, Technical DCS HODs, Technical

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategy 2: Strengthen NBA institutional policies	Develop institutional policies*	Institutional policies developed	No. of policies developed	10	4	4	2	-	-	6	6.5	3	-	-	QMR	DCS PPO
	Review relevant institutional policies**	Institutional policies reviewed	No. of institutional policies reviewed	5	1	4	-	-	-	2	4.5	-	-	-	QMR	DCS PPO

* Institutional Policies to be developed: Data Protection Policy, Risk Management and Mitigation Policy, Succession Policy, Asset Management policy, Records Management policy, Corporate Social Responsibility (CSR) Policy, Communication Strategy, Rewards and Sanctions Policy

** Institutional Policies to be reviewed: ICT Policy, Procurement Manual, Finance Manual

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Stakeholder demand for a more efficient Biosafety regulatory framework																
Strategic Goal: Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement																
KRA 3: Biosafety Assessments																
Outcome: Reduced risk of exposure to unapproved GMOs																
Strategic Objective: To ensure that only approved GMOs are in the market																
Strategy 1: Strengthen GMO risk assessment procedures	Assessment of GMO and other related modern biotechnologies applications	Compliance with Biosafety regulations in assessing applications	% Level of compliance	100	100	100	100	100	100	1.6	2.1	15	20	25	Directors, Technical	HODs, Technical
	Develop/review technical guidelines Labelling Genome-editing Transportation Data transportability Policy	Guidelines developed/reviewed	No. of guidelines developed/reviewed	4	-	1	1	1	1	-	4	2	-	-	Directors, Technical	HODs, Technical CS/DLS DCS
	Guide and enforce establishment of Institutional Biosafety	Institutional Biosafety Committees registered	% of registered Institutional Biosafety Committees	100	100	100	100	100	100	0.5	0.8	1	1.2	1.5	Directors, Technical	HODs, Technical

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility		
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support	
	Committees		as per applications														
	Training of assessors (NBA Board, Biosafety Officers, Biosafety Expert Reviewers, Biosafety Desk Officers, Internal Technical Committee, Institutional Biosafety Committees) on safety assessment and socio-economic impact assessment	Training reports	No. of trained assessors	150	20	20	25	35	50	1	1	6	8	10	DBAA&C	HOD, BRE HOD, BAE&CB CS/DLS DCS DDHRM	

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategy 2: Automation of Biosafety application Processes	Identification and mapping of Biosafety application processes	Mapping report	No. of reports	2	-	1	-	1	-	-	0.5	-	1	-	Directors, Technical	HODs, Technical DCS PICTO
	Automate Biosafety application processes	Processes automated	No. of processes automated	17	-	8	5	2	2	-	3.5	3	3	3	DCS	Directors, Technical HODs, Technical PICTO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Stakeholder demand for a more efficient Biosafety regulatory framework																
Strategic Goal: Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement																
KRA 4: Compliance and Enforcement																
Outcome: Enhanced compliance with the Biosafety regulatory framework																
Strategic Objective: To enhance adherence to GMO regulatory framework																
Strategy 1: Enforce the Biosafety legislative framework for dealers in GMO	Nominate and recommend biosafety inspectors for gazettment	Biosafety Inspectors nominated and recommended for gazettment	No. of Biosafety Inspectors nominated for gazettment	20	-	-	5	7	8	-	-	0.1	0.1	0.1	DBC&E CS/DLS	HOD, BLM&S
	Licensing of GMO dealers and traders	Licensed premises and traders	% of licenses issued as per applications	100	100	100	100	100	100	0.5	0.5	1	1.5	2	DBC&E	HOD, BLM&S
	Undertake monitoring and surveillance	Cities and counties surveys done	No of cities and counties surveys done	47	8	21	30	40	47	0.3	2.5	15	20	25	DBC&E	HOD, BLM&S
		Cargo cleared	% of Cargo cleared	100	100	100	100	100	100	2	2.5	3	3.5	4	DBC&E	HOD, BLM&S
	Conduct GMO testing	Testing conducted	No. of samples tested	2000	100	250	450	550	650	1.5	2	15	20	25	DBC&E	HOD, BLM&S HOD, LS

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
	Inspection and certification of facilities	Approved projects and facilities inspected	No. of approved projects and facilities inspected	25	15	20	23	24	25	1.5	2	3.5	4.5	5	DBC&E	HOD, BLM&S
	Undertake inspections/compliance audits of institutions dealing with GMOs	Compliance of institutions with set conditions for licensing and certification	No. of institutions compliant with set conditions	20	3	4	5	4	4	0.3	0.5	3	2	2.5	DBC&E	HOD, BLM&S
Strategy 2: Strengthen capacity of stakeholders to comply with the Biosafety legislative framework	Sensitization of GMO operators	Sensitization for GMO operators on the Biosafety regulatory framework	No. of trainings conducted	22	1	3	5	6	7	0.2	0.6	5	6	7	DBAA&C	CS/DLS HOD, BAE&CB

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility		
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support	
Strategic Issue: Stakeholder demand for a more efficient Biosafety regulatory framework																	
Strategic Goal: Enhanced efficiency and transparency in Biosafety assessments, compliance and enforcement																	
KRA 5: Biosafety Information Management																	
Outcome: Enhanced management and accessibility of national biosafety information for effective regulation																	
Strategic Objective: To improve the management, accessibility and quality of national biosafety information for effective regulation																	
Establishment of a system for managing biosafety information	Develop and maintain a repository for biosafety information linked to the Authority website	Repository established, maintained and updated	A functional and up-to-date repository	1	-	-	1	-	-	-	-	-	1	-	-	DBAA&C	DCS HODs, Technical PICTO
	Develop an EDMS with a module for biosafety information	Knowledge and records management enhanced and digitized	% level of development of the EDMS Biosafety information module	100%	-	-	30%	60%	100%	-	-	5	7	3	DCS	PICTO PRO	
			Percentage of digitalized records	100%	-	-	20%	30%	50%	-	-	3.5	3.5	3.5	DCS	PRO PICTO	

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
	Capacity-build staff on the use and operations of the biosafety information system	Training on the use of the system	No. of staff trained	53	-	-	-	20	33	-	-	-	2	3	DCS	PICTO PRO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Inadequate coordination for the implementation of international conventions and protocols on Biosafety																
Strategic Goal: Effective engagement, collaborations and partnerships in the global discourse on Biosafety governance																
KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD																
Outcome 1: Enhanced implementation of the Cartagena Protocol on Biosafety under the CBD																
Strategic Objective 1: To promote compliance with international obligations under the Protocol																
Ensure compliance with the international obligations of the Cartagena Protocol	Prepare the Fifth National Report on Implementation of the Protocol	Compliance with international obligations	No. of reports	1	-	-	1	-	-	-	-	3	-	-	DBAA&C	DBC&E HODs, Technical CS/DLS DCS
	Update the BCH with the country's Biosafety information	Timely updates	% of information updated on time	100	100	100	100	100	100	0.1	0.1	2	2.5	3	DBAA&C	DBC&E HODs, Technical
	Develop a Country Position Paper (CPP) on ratification of the Kuala Lumpur Protocol	CPP on the ratification of the protocol	CPP	1	-	-	1	-	-	-	-	5	-	-	CS/DLS DBAA&C	DBC&E HODs, Technical DCS

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
	Submit the CPP for ratification to the Attorney General and the Parent Ministry	CPP on the ratification of the protocol	CPP	1	-	-	1	-	-	-	-	-	-	-	CS/DLS DBAA&C	DBC&E HODs, Technical
	Participate in international and regional biosafety meetings and negotiations	Attendance to Conference of the Parties Serving as Meeting of the Parties to the Protocol	No. of meetings attended	2	-	1	-	1	-	-	4	-	10	-	DBAA&C	DBC&E HODs, Technical CS/DLS DCS

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Inadequate coordination for the implementation of international conventions and protocols on Biosafety																
Strategic Goal: Effective engagement, collaborations and partnerships in the global discourse on Biosafety governance																
KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD																
Outcome 2: Improved global engagement																
Strategic Objective 2: To foster strategic partnerships and collaborations to strengthen Biosafety governance																
Mutual recognition of biosafety assessments with other relevant national competent authorities on Biosafety	Identify priority countries and their competent national authority to the CPB for the Authority to strengthen collaborations with on Biosafety matters	Countries identified for collaboration	No. of countries identified	3	-	-	1	1	1	-	-	-	-	-	Directors, Technical	HODs, Technical
	Develop agreements (MOUs) outlining collaboration terms, roles and responsibilities	MOUs drafted	No. of MOUs drafted	3	-	-	-	-	3	-	-	-	10	5	CS/DLS Directors, Technical	HODs, Technical

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Inadequate institutional capacity of NBA to effectively undertake its mandate																
Strategic Goal: Sustainable growth and institutional capacity for quality and efficiency in service delivery																
KRA 7: Infrastructural and Operational Efficiency																
Outcome 1: Enhanced institutional infrastructure																
Strategic Objective 1: To improve physical infrastructure																
Strategy: Develop physical infrastructure and acquire assets for Authority's use	Establish and sustain border offices across the Country	Border offices opened	No. of border offices opened, refurbished and equipped	9	-	3	2	2	2	-	5	10	10	10	CEO	DCS
															Directors, Technical	HODs, Technical
			Number of rapid testing capacities established	9	-	-	3	3	3	-	-	35	35	35	DBC&E	HODs, BLM&S
																HOD, LS
																SSCMO
																DDF&A

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
	Expand office space at the current headquarters	Office space per employee expanded	Additional square feet acquired	1845	-	1845	-	-	-	-	-	-	-	-	DCS SSCMO	DDF&A DDHRM PAO
	Purchase or leasing of vehicles	Vehicles bought or leased	No. of vehicles bought or leased	3	-	-	1	1	1	-	-	8	8	8	DCS HOD, SCM	DDF&A DDHRM PAO
	Pre-construction approvals of the laboratory and proposed headquarters	Completion of the pre-construction of the Authority headquarters, including foundational work, approvals, and site readiness.	% completion of the pre-construction of the Authority headquarters	100%	-	-	35%	50%	15%	-	-	7	20	5	CS/DLS DCS Directors, Technical SSCMO	HOD, LS DDHRM PAO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Inadequate institutional capacity of NBA to effectively undertake its mandate																
Strategic Goal: Sustainable growth and institutional capacity for quality and efficiency in service delivery																
KRA 7: Infrastructural and Operational Efficiency																
Outcome 2: Enhanced productivity and internal controls																
Strategic Objective 2: To enhance the Authority's operational efficiency																
Strategy 1: Strengthen institutional productivity	Develop a Productivity Improvement Strategy	Comprehensive productivity improvement strategy in place	A productivity strategy developed	1	-	1	-	-	-	-	1	-	-	-	DCS	DDHRM
	Leverage ICT for efficiency and effectiveness in the Authority's operations	Optimized ERP system	No. of ERP modules optimized	5	-	5	-	-	-	-	10	2	-	-	DCS	DDHRM PICTO
		Internal audit process automated	% of automation	100%	-	-	100%	-	-	-	-	3	-	-	DIA&RA	DCS PICTO
		Training on the automated and reviewed systems	No. of staff trained	53	-	-	53	-	-	-	-	-	-	-	DCS	PICTO DDHRM

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
	Maintain ISO 9001 certification	Accreditation/Certification	Compliance with the identified quality standards	100%	100%	100%	100%	100%	100%	4	5.5	9.5	12	15	QMR	PPO
	Attain laboratory accreditation to ISO 17025	Accreditation of the lab	Number of processes accredited	1	-	-	1	-	-	-	-	5	-	-	DBC&E	HOD, LS
	Expand QMS scope to regional offices	Regional offices integrated into the QMS framework	Number of regional offices	3	-	-	1	2	-	-	0.5	2	3	1.5	QMR	PPO
Strategy 2: Strengthen internal controls	Conduct internal system and financial audits	Audit findings	No. of audit reports	20	4	4	4	4	4	1.2	1.2	1.4	1.6	1.8	DIA&RA	
			Productivity index	3.2	2.8	2.9	3.0	3.1	3.2	0.4	1	1.5	1.5	2	DCS	DDHRM All Directors All HODs

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Inadequate institutional capacity of NBA to effectively undertake its mandate																
Strategic Goal: Sustainable growth and institutional capacity for quality and efficiency in service delivery																
KRA 7: Infrastructural and Operational Efficiency																
Outcome 3: Positive public perception of the Authority																
Strategic Objective 3: To enhance the corporate image of the Authority																
Strategy 1: Increase brand recognition	Develop IEC (Information, Education, and Communication) materials	Comprehensive and impactful IEC (Information, Education, and Communication) materials printed and disseminated	Number of IEC materials printed and disseminated	10000	-	1500	2000	2500	4000	-	0.35	1	1.5	2	DCS	HOD, BAE&CB PCO
	Conduct brand awareness campaigns	Brand awareness initiatives undertaken including erecting signages, running ads, and engaging influencers to	Number of brand awareness campaigns conducted	9	-	-	2	3	4	-	-	1	1	1	DCS	HOD, BAE&CB PCO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
		voice the Authority's mandate.														
	Undertake Corporate Social Responsibility (CSR) initiatives	CSR conducted	Number of CSR activities conducted	3	-	-	1	1	1	-	-	2	2.5	3	DCS	PCO
Strategy 2: Strengthen media relations	Organize media roundtables	Media engagements held	Number of media engagements held	5	-	-	1	2	2	-	-	1.5	3	3.5	DCS	DBA A&C HOD, BAE&CB PCO
	Develop and disseminate content on Biosafety through newsletters, documentaries and articles	Content material created and disseminated	Number of content material created and disseminated	14	-	2	4	4	4	-	0.3	2.6	0.8	1	DCS	DBA A&C HOD, BAE&CB PCO
Strategy 3: Improve customer engagement and	Conduct periodic customer satisfaction surveys	Customer satisfaction index	Number of surveys conducted	3	1	-	1	-	1	1.5	-	2	-	2.5	DCS	HOD, BAE&CB

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
feedback mechanism	Review and implement the service charter	Service Charter reviewed and implemented	Percentage Compliance with the Service Charter	100%	100%	100%	100%	100%	100%	-	0.5	1.5	2	2.5	DCS	HOD, BAE&CB PCO

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
Strategic Issue: Inadequate institutional capacity of NBA to effectively undertake its mandate																
Strategic Goal: Sustainable growth and institutional capacity for quality and efficiency in service delivery																
KRA 8: Human Resource Management																
Outcome: Improved staff performance																
Strategic Objective: To enhance workforce capacity																
Strengthen human resource management	Staff recruitment	Additional staff recruited	No. of staff recruited	41	-	9	20	6	6	-	11.8	19.1	5.4	5.4	DCS	DDHRM
	Undertake training and skills development of staff	Skills and competencies of staff enhanced	No. of training reports	5	1	1	1	1	1	3.5	9	10	15	20	DCS	DDHRM DDF&A All HODs
	Institutionalize succession planning	Reports on implementation of the succession policy	No. of reports	-	-	1	1	1	1	-	-	2.5	3	3.5	DCS	DDHRM
	Deploy staff wellness programs	Employee satisfaction survey	No. of reports	1	-	1	-	1	-	-	1	-	1.2	-	DCS	DDHRM All HODs

Strategy	Key Activities	Expected Output	Output Indicators	Target for 5 years	Target					Budget (Ksh. Mn)					Responsibility	
					Y1	Y2	Y3	Y4	Y5	Y1	Y2	Y3	Y4	Y5	Lead	Support
																SSCM
		Motivational programs in place	No. of wellness programs implemented** *	5	1	3	5	5	5	8.5	43	74	79	80	DCS	DDHRM DDF&A
	Optimize and implement performance management tool	Performance tool optimized	% of staff evaluated	100%	100%	100%	100%	100%	100%	-	0.1	0.2	0.3	0.5	All Directors	DDHRM All HODs

*** Wellness programs including car loan, mortgage, educational talk, lactation

6.1.2 Annual Work plan and Budget

The Authority has costed its Strategic Plan for the entire implementation period. To support implementation of the strategic plan, annual work plans will be developed to operationalize it. The Authority has a documented and approved annual operational work plan and budget for the financial year 2023/2024 and is provided as Appendix I.

6.1.3 Performance Contracting

The Government of Kenya is committed to ensuring that public offices are well managed and they are effective in delivering quality service to the public in line with the provisions of the Constitution of Kenya. The performance contracting process incorporates government priorities and is guided by Performance Guidelines. The Authority's Performance Contracts are developed annually and linked to the annual workplans to establish the basis for ensuring transparency, efficiency and effectiveness in services delivery. This further ensures that the implementation of the Strategic Plan is also linked to the Performance Contract.

6.2 COORDINATION FRAMEWORK

The Authority will coordinate and implement the Strategic Plan within its organizational structure and with the involvement and participation of donor partners and other stakeholders at different stages and levels. The coordination framework also requires the full involvement, effort, commitment and leadership from the Board and staff. The Board will play the critical task of guiding, overseeing and mobilizing appropriate budgetary resources in order to support the effective implementation of this Plan.

The overall responsibility of implementing the Strategic Plan will rest with the Chief Executive Officer who shall prepare and submit programmes necessary for the achievement of the mandate of the Authority. In addition, the Chief Executive Officer will assign duties and supervise staff to ensure successful implementation of the Strategic Plan. The Management on the other hand will implement the programmes and projects outlined in the Plan in line with the Biosafety Act CAP 320, relevant policies, procedures, protocols, manuals and other legislations. Therefore, the Authority will integrate coordination of all stakeholders that will then guarantee efficient and effective implementation of the Plan.

6.2.1 Institutional Framework

The current organizational structure of the Authority will provide both institutional and functional framework for implementation of the Strategic Plan. The Authority will adopt the current organizational structure (Annex I) in implementing the Plan.

The current structure of the Authority provides for the Office of the Chief Executive Officer and six functional directorates namely: -

1. Biosafety Assessment, Awareness and Collaborations Directorate;
2. Biosafety Compliance & Enforcement Directorate;
3. Strategy and Planning Directorate;
4. Corporate Services Directorate;
5. Internal Audit and Risk Assurance Directorate; and
6. Corporation Secretary and Legal Services Directorate

The functional areas are discussed in the sections that follow:

1. Office of the Chief Executive Officer

The office is established under Section 12 of the Biosafety Act CAP 320 and is responsible for the overall implementation of the Board's decisions. The functions include:

- i.** Responsible for the day-to-day operations of the Authority;
- ii.** Provide strategic leadership to the Authority;
- iii.** Ensure implementation of the Provision of the Biosafety Act CAP 320;
- iv.** Ensure the maintenance of efficiency and discipline by all staff of the Authority;
- v.** Manage the budget of the Authority to ensure its funds are properly expended and accounted for;
- vi.** Establish effective management processes, systems and structure including succession plans and change management;
- vii.** Responsible for the execution and communication of the Board's strategies, decisions and policies;

- viii. Responsible for stakeholder management and the enhancement of the corporate image as well as being the spokesperson of the Authority;
- ix. Ensure compliance with the relevant laws and statutory obligations.;
- x. Responsible for the coordination and reporting to the Secretariat of the Convention of Biological Diversity (CBD) as the National Focal Point to the Cartagena Protocol on Biosafety; Foster a culture that promotes ethical practices and good corporate governance;
- xi. Ensure the Authority leverages on technology to deliver efficient and effective services;
- xii. Guide in the development and implementation of relevant policies and procedures that give the Authority positive perception and competitive advantage;
- xiii. Facilitate the preparation and implementation of the Authority's strategic and annual work plans; and
- xiv. Develop networks and partnerships with development partners and spearhead donor collaboration, fundraising, and project development within the Authority's area of jurisdiction.

2. Biosafety Assessment, Awareness and Collaborations Directorate

The Directorate is established pursuant to the provision of Section 7(2)(a), (b), (d), (e), (f) & (g) of the Biosafety Act CAP 320 to exercise general supervision and control over the transfer, handling and use of genetically modified organisms, ensuring safety of human and animal health and provision of adequate level of protection of the environment. The Directorate is responsible for biosafety risk assessment, biosafety awareness, education and capacity building and Biosafety Partnerships, Collaborations & International Obligations. The functions include:

- i. To initiate the formulation, review and implement policies, procedures, strategies and activities in relation to, plant, animal and microbial biosafety including categorization, approval and certification of biosafety facilities;
- ii. Ensure implementation of programs within the Directorate in accordance with the Biosafety Act CAP 320 and Regulations;
- iii. Develop operational guidelines and manuals necessary for effective implementation of Directorate mandates;
- iv. Consider and determine applications for approval for the transfer, handling and use of genetically modified organisms, and related activities;
- v. Process and implement Board decisions affecting the Directorate including GMO approvals documents;

- vi.** Establish and ensure maintenance of GMO Applications' Register;
- vii.** Establish and ensure maintenance of a roster of biosafety experts and coordinate the engagement of biosafety experts and consultation of relevant regulatory agencies on biosafety matters;
- viii.** Prepare relevant technical papers, reports and other submissions for consideration by the Board;
- ix.** Establish and manage administrative mechanisms to ensure confidential handling and storage of documents and data in connection to the processing of applications and other matters under the Biosafety Act CAP 320;
- x.** Develop checklists for inspection, classification and certification of GMO containment facilities;
- xi.** Ensure establishment and strengthening of Institutional Biosafety Committees (IBCs) in research and academic institutions engaged in GMO research-related activities;
- xii.** Coordinate training of regulatory agencies, expert reviewers and biosafety professionals in GMO research-related activities;
- xiii.** Coordinate the mobilization of resources to augment the financial needs of the Authority;
- xiv.** Enhance biosafety awareness and education by organizing programs for public education and awareness creation;
- xv.** Create an interactive and effective environment for communication and collaboration with diverse stakeholders;
- xvi.** Identify national requirements for manpower development and capacity building in Biosafety and coordinate training initiatives to Regulatory agencies, Institutional Biosafety Committees, decision makers and other stakeholders;
- xvii.** Coordinate the management of the Biosafety Clearing House (BCH);
- xviii.** Ensure compliance to international obligations on biosafety;
- xix.** Coordinate the monitoring of approved GMO research projects in containment and confinement facilities;
- xx.** Coordinate the development and domestication of relevant standards on biosafety;
- xxi.** Monitoring and surveillance activities to ensure compliance with biosafety regulations; and
- xxii.** Enforce compliance through inspections and appropriate actions against violations

3. Biosafety Compliance & Enforcement Directorate

The Directorate exists pursuant to the provision of Section 7(2)(a), (b), (c) & (d) of Biosafety Act CAP 320 to exercise general supervision and control over the transfer, handling and use of genetically modified organisms, ensuring safety of human and animal health and provision of adequate level of protection of the environment, responsible for the management of Biosafety Licensing, monitoring and surveillance, Laboratory Services and Border Management and Regional Offices.

The functions include:

- i.** Initiate the formulation, review and implement policies, procedures, strategies and activities in relation to biosafety compliance and enforcement;
- ii.** Coordinate development of project proposals and concept notes on biosafety programs;
- iii.** Digitization of processes to facilitate biosafety in transboundary movement of GMOs;
- iv.** Coordinate the processing and issuance of GMO-Free certificates for non-GMO export commodities;
- v.** Ensure proper labelling and traceability of approved GM foods, feeds, seeds and other commodities;
- vi.** Coordinate post release monitoring of commercialized genetically modified plants, animals and microorganisms;
- vii.** Review post market data submitted by applicants, Regulatory agencies and any other stakeholder for regulatory decisions;
- viii.** Conduct market surveillance activities nationally and at counties for purposes of testing;
- ix.** Coordinate Border Management and Regional Offices;
- x.** Conduct surveys, research to inform the Board and Management on topical matters and biosafety issues;
- xi.** Coordinate GMO Testing and Laboratory Services;
- xii.** Monitoring and surveillance activities to ensure compliance with biosafety regulations;
- xiii.** Coordinate the affairs of Border Management and Regional Offices;
- xiv.** Enforce compliance through inspections and appropriate actions against violations;

- xv.** Ensure implementation of programs within the Directorate in accordance with the Biosafety Act CAP 320 and Regulations;
- xvi.** Develop GMO sampling, detection and analysis protocols; and
- xvii.** Facilitate timely analysis of GMO samples and other analytical tests.

4. Corporate Services Directorate

The mandate of the corporate services directorate is to provide strategic leadership and coordination of the Finance and Accounts, Human Resource Management, Administration, ICT, Corporate Communication and Records, Library & Knowledge Management.

The functions include:

- i.** To initiate the formulation, review and implement policies, plans and strategies in the functional areas of Finance and Accounting, Human Resource Management, Administration, Information Communications Technology, Corporate Communication and Records, Library & Knowledge Management;
- ii.** Oversee the development and implementation of financial regulations, strategies, internal controls and plans for effective and efficient use of resources;
- iii.** Oversee Budget preparation and implementation;
- iv.** Coordinate the development of resource mobilization strategies;
- v.** Coordinate preparation of the financial reports, financial statements and submission to relevant institutions;
- vi.** Coordinate the design and review of administrative structure of the Organization, direction and control for effective organizational performance;
- vii.** Inculcate a culture that promotes team capability and reflects the values which facilitate performance, professionalism and innovation by staff throughout the Authority;
- viii.** Coordinate the Authority's human capital affairs, ensuring that the Authority has the right and sufficient human resource to meet its objectives;
- ix.** Oversee Human Resources development and succession plan;
- x.** Coordinate the Authority's Management Information Systems and security;
- xi.** Coordinate technology infrastructure in line with the Authority's goals and changing technologies;

- xii.** Provide technical, strategic and policy advice on ICT matters and implementation of various ICT work processes, procedures and other administrative related matters;
- xiii.** Coordinate the development of appropriate public communication strategies; preparing public education materials and communication plans for awareness creation;
- xiv.** Provide interface between the Authority and other stakeholders to ensure enhanced corporate image, visibility and stakeholder engagement;
- xv.** Coordinate corporate social responsibility activities;
- xvi.** Coordinate and organize protocol functions and other events of the Authority. Development of comprehensive Records and Knowledge Management systems for the preservation of corporate memory and dissemination of information resources;
- xvii.** Ensure custody of all Authority assets, controlling and monitoring of the location and movement of equipment; and
- xviii.** Ensure conducive work environment for the Authority staff.

5. Corporation Secretary and Legal Services Directorate

The Directorate is derived from Section 14 of the Biosafety Act CAP 320 that empowers the Authority to employ a corporation secretary and other officers who include legal officers. Further Clause 1.21 of Mwongozo Code of Governance for state Corporations mandates the directorate to provide the Board's secretariat.

The functions include:

- i.** Provide advice on legal and corporate governance matters;
- ii.** Provide guidance to the Board on their duties and responsibilities and on matters of governance;
- iii.** Provide Board secretarial services and assist the Board in carrying out Board induction, training, updating the Board and Committee charters, preparation of Board work plans, Board evaluation, Governance audit and implementation of Mwongozo and the code of conduct and Ethics;
- iv.** Maintain and update the Boards conflict of interest register;
- v.** Develop and review relevant regulatory Legal framework for the Authority;
- vi.** Manage the litigation functions;
- vii.** Draft and review legal documents including contracts, Service Level Agreements, Memorandum of Understanding, leases and other legal documents for the

Authority;

- viii.** Liaise with the office of the Attorney General and other government agencies on legal matter;
- ix.** Formulate, draft and facilitate gazettment of Legal Notices issued by the Authority;
- x.** Ensure the compliance of the corporation with relevant laws, rules and regulations including corporate governance practices;
- xi.** Be the custodian of the Authority's seal, title documents and other legal instruments;
- xii.** Interpret Laws governing the Authority's operations and giving appropriate and timely legal advice on matters affecting the Authority;
- xiii.** Oversee formulation, vetting, review, negotiations of contracts, leases, agreements and Memorandums of Understanding;
- xiv.** Spearhead policy formulation and review in line with relevant laws and Government Circulars;
- xv.** Conduct legal compliance audits;
- xvi.** Ensuring compliance with principles of good governance, transparency, accountability, ethics and integrity; and
- xvii.** Manage and develop staff in the Directorate.

6. Strategy and Planning Directorate

Strategy and Planning Directorate is established to ensure that NBA adopts and implements effective strategies in planning, performance management, monitoring and evaluation, Quality assurance and risk management as well as ensuring adherence to regulatory requirements.

The functions include:

- i.** Initiate the development of policies and strategies relating to planning, resource mobilization, performance management, quality assurance and risk management;
- ii.** Oversee the development and reviewing of the Authority's Master plan, strategic and business plans for the Authority;
- iii.** Prepare of annual work plan for development activities for the Authority as per the strategic plan;
- iv.** Monitor and evaluating the implementation of the Authority's strategic plan and board projects;

- v. Manage performance management process in the Authority;
- vi. Oversee the preparation and implementation of the Authority's performance contract;
- vii. Co-ordinate the risk management activities in all directorates, departments and divisions;
- viii. Submit monthly, quarterly, semi-annual and annual organizational performance report to the CEO and relevant statutory offices;
- ix. Preparing and implementing the Authority's Quality Management System through quality assurance programmes;
- x. Developing and maintaining Risk management Register;
- xi. Promoting innovations within NBA and initiating business reengineering processes programs;
- xii. Plan and formulate the Authority's development and resource mobilization strategies;
- xiii. Develop overall strategic intent for the organization and business modelling in line with relevant government policies and communicate to function units;
- xiv. Prepare and coordinate the negotiation on behalf of the Authority the organizational performance contract; coordinate justification and provision of evidence on behalf of the Authority;
- xv. Monitor and evaluate the Authority's projects including donor funded projects.
- xvi. Coordinate the Authority's Quality Management system to ensure continuous improvement;
- xvii. Develop the M&E tools and implement them;
- xviii. Monitoring implementation of strategic plan; and
- xix. Coordinate performance contracting activities.

7. Internal Audit and Risk Assurance Directorate

The Directorate is responsible for providing assurance on the Authority's internal control systems and the governance structure. It is established pursuant to the Section 14 of the Biosafety Act CAP 320 and public Finance act Gazette Notice number 2690 dated 15th April ,2016.

The functions include:

- i.** Provide the secretarial services to the Audit Committee;
- ii.** Make independent reviews of internal control systems and verification of operations and activities with a view to assessing economy, efficiency and effectiveness with which the organization's resources are utilized;
- iii.** Evaluate and assess risk management, control and governance in the Authority;
- iv.** Conduct regular audits to ascertain effectiveness and efficiency of operations, compliance with policies, procedures, statutory laws and the industry best practices;
- v.** Periodically assess Authority's accounts and financial control systems to evaluate and advise on the reliability and integrity of financial information and the efficient and effective use of resources;
- vi.** Provide recommendations and advice on improvements to the Authority's system and procedures;
- vii.** Facilitate systems and financial audit by external auditors and follow up to ensure implementation of the recommendations;
- viii.** Undertake special audits/investigations;
- ix.** Prepare, review and implement the internal audit charter;
- x.** Prepare quarterly reports on the status of implementation of the internal audit annual work plan for submission to the Audit Committee;
- xi.** Plan and undertake audits to assess controls, operational and technical efficiencies and compliance with policies, procedures and regulations;
- xii.** Evaluate the effectiveness of the overall enterprise risk management program;
- xiii.** Liaise with the Office of the Auditor General and ensure follow up on the process of implementation of Internal and external audit recommendations;
- xiv.** Recommend mitigation measures to address identified weaknesses where necessary;
- xv.** Ensure that the Internal Audit systems, procedures and guidelines are prepared for approval;
- xvi.** Prepare work programmes to ensure that audits are planned and well managed;
- xvii.** Review and submission of audit reports to the Chief Executive Officer and the Board; and
- xviii.** Draft the Audit Committee Board Charter.

6.2.2 Staff Establishment, Skills Set and Competence Development

The Authority has an approved staff establishment of fifty-three (53) with a current in-post of 47 as presented in Table 6.2.

Table 6.2: Staff Establishment

S/No.	Cadre	Approved Establishment (A)	Optimal Staffing Levels (B)	In-Post (C)	Variance D=B-C
1.	CEO	1	1	1	0
2.	Director(s)	6	6	4	2
3.	Deputy Director(s)	11	11	3	8
4.	Principal Officer(s)	11	19	8	11
5.	Senior Officer(s)	7	26	15	11
6.	Officer(s)	8	26	9	17
7.	Senior Assistant/ Technologist	1	5	1	4
8.	Assistants/ Drivers	6	9	5	4
9	Senior Office Assistant/ Driver	1	2	1	1
10	Office Assistant	1	1	1	-
	Total	53	106	47	59

Based on the determination of the optimal staffing levels as identified in Table 6.2, the Authority reviewed the extent, relevance and appropriateness of the skills and competencies required for the execution of the Strategic Plan. By systematically addressing the skills gap within the framework of the Authority's Strategic Plan, the Authority will build a workforce that is not only equipped with the right skills but is also agile, innovative, and aligned with the Authority's long-term goals.

The analysis undertaken identified the Authority's skills gaps and made proposals, as per the respective career progression guidelines on how to bridge them through competency development programs and activities.

The skills-sets, skills gaps and competence development activities to mitigate gaps identified are highlighted in Table 6.3.

Table 6.3: Skills Set and Competence Development

Cadre	Skills Set	Skills Gap	Competence Development
Chief Executive Officer	<ul style="list-style-type: none"> • Bachelor’s degree in any of the following field: Biological Sciences, Biotechnology, Environmental Sciences, Agricultural Sciences, Applied Sciences, Business studies, Social Sciences or other equivalent fields from a recognized Institution; • Master’s Degree in relevant field; • At least Fifteen (15) years’ proven experience in a relevant field five (5) years of which must be at the level of senior management • Leadership Course lasting not less than four weeks • Member of a professional Body where applicable and in good standing • Fulfilled the requirements of Chapter Six of the Constitution • Proficiency in Computer applications • Corporate Governance Course from a recognized Institution • Demonstrate a clear understanding of Mwongonzo: The Code of Governance for State Corporation 	<ul style="list-style-type: none"> • Visionary leadership • Transformative leadership • Strategic thinker • Communication skills • Business insight • Customer focus • Problem solving skills • Interpersonal and negotiation skills • Decision making skills • Mentoring and coaching skills 	<ul style="list-style-type: none"> • Strategic leadership development • Finance management • Data analytics and management tools • Public private partnerships financial and risk analysis • Governance and ethics • Governance and Integrity • Certified Ethical Hackers and Corporate Fraud • Coaching and mentoring

Cadre	Skills Set	Skills Gap	Competence Development
Directors	<ul style="list-style-type: none"> • Bachelor’s degree from a recognised institution; • Master’s Degree from a recognised institution. • At least ten years (12) experience, four (3) years of which must have been at a management level in public or private sector; • Professional qualification and membership to a professional body where applicable • Leadership course lasting not less than four weeks from a recognized Institution • Proficiency in computer applications • Fulfil the requirements of Chapter of the Constitution of Kenya 	<ul style="list-style-type: none"> • Strategic and leadership skills • Communication skills • Planning and organising skills • Analytical skills • Business insight • Decision making skills • Interpersonal and negotiation skills • Mentoring and coaching skills 	<ul style="list-style-type: none"> • Strategic leadership development • Finance management • Data analytics and management tools • Project management • Public-private partnerships financial and risk analysis • Certified Ethical Hackers and Corporate Fraud • Governance and Integrity • Coaching and mentoring
Deputy Directors	<ul style="list-style-type: none"> • Bachelor’s degree from a recognised institution; • Master’s Degree from a recognised institution. • At least ten years (10) experience, four (4) years of which must have been at a management level in public or private sector; • Professional qualification and membership to a professional body where applicable • Management course lasting not less than four weeks from a recognized Institution • Proficiency in computer applications • Fulfil the requirements of Chapter of the Constitution of Kenya 	<ul style="list-style-type: none"> • Strategic and leadership skills • Communication skills • Communication skills • Planning and organizing skills • Analytical skills • Business insight • Decision making skills • Interpersonal and negotiation skills 	<ul style="list-style-type: none"> • Strategic leadership development • Finance management • Data analytics and management tools • Project management • Public-private partnerships financial and risk analysis • Certified Ethical Hackers and Corporate Fraud

Cadre	Skills Set	Skills Gap	Competence Development
Biosafety	<ul style="list-style-type: none"> • Bachelors degree in any of the following disciplines: Molecular Biology Biotechnology, Biological sciences, Biochemistry, Environmental Sciences, Agricultural Sciences, Microbiology or equivalent qualification from a recognized institution; • Masters Degree in the following disciplines: Molecular Biology Biotechnology, Biological sciences, Biochemistry, Environmental Sciences, Agricultural Sciences, Microbiology or equivalent qualification from a recognized institution; • Member of a professional Body in good standing where applicable; • Supervisory course lasting not than two (2) weeks from a recognized institution; • Management course lasting not less than four (4) weeks from a recognized institution; • Leadership course lasting not less than four (4) weeks from a recognized institution; • Proficiency in computer application; • Relevant work experience 	<ul style="list-style-type: none"> • GMO Food Safety • Communication skills • Report writing • Research Techniques • Abreast with Emerging trends 	<ul style="list-style-type: none"> • Governance and Integrity • Governance and Integrity • Project management • Data analytics and management tools
Laboratory Technician	<ul style="list-style-type: none"> • Certificate in Laboratory Technology, Biological Laboratory Science, Biological Laboratory Technology or other equivalent fields from a recognized institution; • KCSE (mean grade D+) or equivalent qualification; • Four (4) years relevant work experience where applicable; • Proficiency in computer applications; • Fulfilling the requirements of Chapter Six of the Constitution 	<ul style="list-style-type: none"> • Analytical; • Report writing; • Communication 	<ul style="list-style-type: none"> • GMO Food Safety • Communication skills • Report writing • Research Techniques • Abreast with Emerging trends

Cadre	Skills Set	Skills Gap	Competence Development
Laboratory Technologist	<ul style="list-style-type: none"> • Diploma in Laboratory Technology, Biological Laboratory Science, Biological Laboratory Technology or other equivalent fields from a recognized institution • A minimum of four (4) years relevant work experience where applicable; • A minimum of eight (8) years relevant work experience where applicable; • Proficiency in computer applications; and • Fulfilling the requirements of Chapter Six of the Constitution. 	<ul style="list-style-type: none"> • Analytical • Report writing • Communication 	<ul style="list-style-type: none"> • GMO Food Safety • Communication skills • Report writing • Research Techniques • Abreast with Emerging trends
Finance/ Accountants	<ul style="list-style-type: none"> • Bachelors degree in any of the following disciplines: Business Administration, Finance, Accounting, Commerce or equivalent qualification from a recognized institution; • Masters degree in any of the following disciplines: Business Administration, Public Administration, Finance, Accounting, Commerce, Project Management or equivalent qualification from a recognized institution; • Management Course lasting not less than four (4) weeks from a recognized institution; • Supervisory course lasting not less than two (2) weeks from a recognized institution; • CPA (K)/ACCA or its equivalent; • Membership to the Institute of Certified Public Accountants of Kenya and be of good standing; • Proficiency in Computer application; and • Fulfil requirement of Chapter Six of the Constitution. 	<ul style="list-style-type: none"> • Problem solving skills • Communication Skills • Report writing skills • Interpersonal and negotiation skills • Public Finance and Budget • Risk Analysis • Supervisory skills • Public Finance • Risk Analysis • CPA Course 	<ul style="list-style-type: none"> • Governance and Integrity • Project management • Data analytics and management tools • Finance management • Strategic leadership development • Public Finance • Risk Controls and Assessment • Professional Accounting
Human Resource	<ul style="list-style-type: none"> • Bachelors degree in Human Resource Management, Development, Business Administration or Management, Public Administration, Social sciences or any other relevant field from a recognized institution; • Masters Degree in Human Resource Management, Development, Business Administration or Management, Public Administration, Social sciences or any other relevant field from a recognized institution. • Diploma, higher diploma in human resource management 	<ul style="list-style-type: none"> • Senior Management Course • Report writing skills • Analytical skills • Productivity • Improvement 	<ul style="list-style-type: none"> • Labour laws • HRIS • Problem solving skills • Senior Management Course • Good communication

Cadre	Skills Set	Skills Gap	Competence Development
	<ul style="list-style-type: none"> Supervisory course lasting not Less than 2 weeks from a recognized institution Management Course lasting not less than four (4) weeks from a recognized institution; Member of IHRM and in good standing; Certified Human Resource professional (CHRP-K) Demonstrated competence in work performance; Proficiency in Computer application; Fulfilled the provisions of chapter six of the constitution. 	<ul style="list-style-type: none"> course Labour Laws 	<ul style="list-style-type: none"> and Interpersonal Skills Basic Finance skills CHRP
Administration	<ul style="list-style-type: none"> Bachelors degree in any of the following disciplines:- Public Administration; Business Administration; Office Management, Fleet Management/Business Management/Health and Safety or equivalent from a recognized Institution; Masters degree in any of the following disciplines:- Public Administration; Business Administration; Office Management, Fleet Management/Business Management/Health and Safety or equivalent from a recognized Institution; Supervisory course lasting not less than two (2) weeks from a recognized institution; Fulfilled the requirements of Chapter Six of the constitution; Proficiency in computer applications from a recognized institution. 	<ul style="list-style-type: none"> Fleet Management CPS Skills Problem solving skills Senior Management Course Good communication and Interpersonal Skills 	<ul style="list-style-type: none"> Fleet Management CPS Skills Problem solving skills Senior Management Course Good communication and Interpersonal Skills
Planning	<ul style="list-style-type: none"> Diploma in Economics/Statistics/Mathematics/Project planning and Management, Business Development, Development Studies, Business Administration or any business-related course or equivalent from a recognized institution; Bachelors degree in Economics/Statistics/Mathematics/Project planning and Management Business Development, Development Studies, Business Administration or equivalent qualification form a recognized institution Master's Degree in Economics/Statistics/Mathematics/Project Planning/Strategic Management, Business Development, Development Studies, Business Administration or equivalent qualification form a recognized institution; 	<ul style="list-style-type: none"> Team building Report writing Resource mobilization Presentation 	<ul style="list-style-type: none"> Resource Mobilization Proposal and report writing skills Presentation Skills Senior Management Course Project Management Skills

Cadre	Skills Set	Skills Gap	Competence Development
	<ul style="list-style-type: none"> • Supervisory Skills course lasting not less than two weeks from a recognized institution; • Management Course lasting not less than four (4) weeks from a recognized institution; • Leadership Course lasting not less than four (4) weeks from a recognized institution; • Be a member of a relevant professional body; • proficiency in Computer application; and • Fulfilled the provisions of chapter six of the constitution. 		
Communication	<ul style="list-style-type: none"> • Diploma in Mass Communication, Communication or Public Relations from recognized institution; • Bachelors degree in Communications/Public Relations/Journalism/Mass Communication from recognized institution or other relevant fields • Masters degree in Communications/Public Relations/Journalism/Mass Communications or other relevant fields from a recognized institution; • Member of Public Relations Society of Kenya (PRSK) or any other relevant professional body in good standing. • Supervisory skills course lasting not less than two (2) weeks from a recognized institution; • Senior management Course not lasting less than four (4) weeks from a recognized institution; • Proficiency in Compute Application; and • Fulfilled chapter six of the constitution 	<ul style="list-style-type: none"> • Team work • Report writing • Data Protection • Presentation • Leadership 	<ul style="list-style-type: none"> • Presentation Skills • Data Protection • Supervisory Skills • Team building • Report writing • Senior Management Course

Cadre	Skills Set	Skills Gap	Competence Development
ICT	<ul style="list-style-type: none"> • Diploma in Computer Science, Information Technology, Information Communication Technology, or equivalent from a recognized institution; • Bachelors degree in Computer Science, Information Technology, Information Communication Technology, or equivalent from a recognized university; • Masters degree in Computer Science, Information Technology, Information Communication Technology, or equivalent from a recognized university; • Possession of relevant professional qualifications in Networks, Systems, ICT Security, Databases. • Membership to a relevant professional body; • Management Course lasting not less than four (4) weeks from a recognized institution; • Supervisory Course lasting not less than two (2) weeks from a recognized institution; • Member of a relevant professional body in good standing; • Proficiency in computer applications; and • Fulfilled the requirements of Chapter Six of the constitution. 	<ul style="list-style-type: none"> • Team building • Data Protection • Cyber Security 	<ul style="list-style-type: none"> • Team building • Data Protection • Cyber Security • Presentation Skills • Supervisory Skills • Team building • Report writing • Senior Management Course
Records Management	<ul style="list-style-type: none"> • Bachelors Degree in any of the following field: Library and Information Science, or Records and Information Technology or its equivalent qualification from a recognized institution; • Masters degree in any of the following disciplines: Library and Information Management or Science, Records Management, MBA- Management Information System option or equivalent qualification from a recognized institution; • Management Course lasting not less than four (4) weeks from a recognized institution. • Supervisory course lasting not less than 2 weeks from a recognized institution; • Membership to a relevant Professional body and in good standing; • Proficiency in Computer application; and • Fulfilled the requirement of Chapter Six of the Constitution. 	<ul style="list-style-type: none"> • Data Protection • Knowledge management • Report writing & Communication • Teamwork 	<ul style="list-style-type: none"> • Communication and report writing skill • Data Protection • Knowledge management • Report writing & Communication

Cadre	Skills Set	Skills Gap	Competence Development
Auditors	<ul style="list-style-type: none"> • Bachelors Degree in any of the following disciplines: Finance, Accounting or any other equivalent qualification from a recognized institution; • Masters Degree in any of the following disciplines: Finance, Accounting or equivalent qualification from a recognized institution; • Be in possession of any of the following: - CPA(K), CISA or its equivalent and either; • Be a member of any of the following professional bodies- Institute of Certified Public Accountant of Kenya (ICPAK), Institute of Internal Auditors of Kenya (IIA-Kenya), Information Systems Audit and Control Association (ISACA), Association of Certified Fraud Examiners (ACFE); • Certified Public Accountants (K), Certified Internal Auditor (CIA); Association of Certified Chartered Accountants (ACCA); • Be in possession of CISA, CIA, Risk Management Qualification, CFE or any other relevant qualification; • Internal Audit Quality Assessors Certification; • Certificate in Management Course lasting not less than four (4) weeks; • Leadership course lasting not less than four (4) weeks from a recognized institution; • Proficiency in Computer applications; • Fulfil the requirements of Chapter Six of the Constitution. 	<ul style="list-style-type: none"> • Team work • Report writing • Risk analysis • Presentation • Leadership 	<ul style="list-style-type: none"> • Risk management • Report writing and Presentation • Leadership skills • Team building
Legal	<ul style="list-style-type: none"> • Bachelors Degree in Law from a recognized university; • Master’s Degree in Law from a recognized university or other equivalent qualifications; • Advocate of the High Court of Kenya; • Member, Law Society of Kenya; • Hold current practicing certificate; • CPS (K) Qualifications; • Member, Institute of Certified Secretaries of Kenya (ICSK) in good standing; • Leadership course lasting not less than four weeks; • Proficiency in Computer Application; • Fulfilled requirements of Chapter six of the Constitution. 	<ul style="list-style-type: none"> • Strategic and leadership skills • Communication skills • Planning and organising skills • Analytical skills • Business insight • Decision making skills • Interpersonal and negotiation skills • Mentoring and coaching skills 	<ul style="list-style-type: none"> • Strategic leadership development • Finance management • Data analytics and management tools • Project management • Public-private partnerships financial and risk analysis • Certified Ethical Hackers and Corporate Fraud • Governance and

Cadre	Skills Set	Skills Gap	Competence Development
			Integrity • Coaching and mentoring
Administrators	<ul style="list-style-type: none"> • Certificate in Secretarial Management Course lasting not less than two (2) weeks; • Diploma in Secretarial Services from the Kenya National Examinations Council (KNEC) from a recognized institution; • Bachelor Degree in Secretarial Studies/Business Administration or equivalent qualification from a recognized institution; • Supervisory Course lasting not less than (4) weeks; • Certificate in Senior Management Course lasting not less than four (4) weeks from a recognized institution; • Fulfill the requirements of Chapter Six of the Constitution; and • Proficiency in Computer applications. 	<ul style="list-style-type: none"> • Team work; • Report writing • Data Protection • Presentation • Leadership • Time Management • Good interpersonal skills • Team work • Organizational skills 	<ul style="list-style-type: none"> • Presentation Skills • Data Protection • Supervisory Skills • Team building • Report writing • Senior Management Course • Public relations & customer care
Supply chain	<ul style="list-style-type: none"> • Diploma in Procurement, Purchasing, logistics, Business Administration, Commerce, Economics or its equivalent qualification from a recognized institution; • Bachelors Degree in Procurement, Purchasing, logistics, Business Administration, Commerce, Economics or its equivalent qualification from a recognized institution; • Masters Degree in Supply Chain Management, Logistics or equivalent qualification from a recognized institution; • Supervisory skills course lasting not less than two (2) weeks from a recognized institution; Management course not lasting less than four (4) weeks from a recognized Institution; Member of KISM/CIPS and in good standing; vii. Demonstrated results in work performance; • Fulfilled the requirements of Chapter Six of the Constitution; • Proficiency in Computer Application; 	<ul style="list-style-type: none"> • Team work; • Report writing • Presentation • Leadership • Time Management • Good interpersonal skills • Team work • Organizational skills 	<ul style="list-style-type: none"> • Presentation Skills • Supervisory Skills • Team building • Report writing • Senior Management Course • Public relations & customer care

Cadre	Skills Set	Skills Gap	Competence Development
Drivers	<ul style="list-style-type: none"> • KCSE D+ or equivalent qualification from a recognised institution; • Valid driving license; • Craft certificate; • Proficiency in computer applications; Certificate of good conduct; • Training in First Aid; • Defensive Driving Course; • Occupational Trade Test I, II, III; • Fulfilling the requirements of Chapter Six of the Constitution 	<ul style="list-style-type: none"> • Team building • Report writing • Communication • Presentation • Time Management • Good interpersonal skills • Knowledge of Government vehicle management • Defensive driving 	<ul style="list-style-type: none"> • Public relations & customer care • Refresher Course for Drivers • Team building
Assistants	<ul style="list-style-type: none"> • KCSE D (Plain) or equivalent from a recognised institution; • Proficiency in Computer applications • Fulfill the requirements of Chapter Six of the Constitution; 	<ul style="list-style-type: none"> • Public relations & customer care • Refresher Course for Drivers • Team building 	<ul style="list-style-type: none"> • Public relations & customer care • Refresher Course for Drivers • Team building

6.2.3 Leadership

The Authority's Board will play a pivotal role in ensuring the effective implementation of the Strategic Plan. The Management team, with the Board's guidance, will put the new plan into action to help Kenya reach its development goals efficiently, while also focusing on what's important for the Authority.

To establish a clear framework of responsibilities and accountability for guiding and overseeing the implementation of strategic activities tied to each Key Result Area, the Authority has established Strategic Theme Teams. These teams are aligned with the identified Strategic Issues and have been provided with specific Terms of Reference as presented in Annex II.

The day-to-day operationalization of the strategic plan is the responsibility of heads of departments and divisions. Each employee will be responsible for achievement of relevant targets.

6.2.4 Systems and Procedures

To effectively and efficiently implement the Strategic Plan, the Authority shall establish and evaluate internal systems, processes, and SOPs in line with ISO quality standards. The Authority will maintain a robust regulatory framework and ensure compliance with relevant national and international Biosafety laws. The Authority will allocate resources efficiently to support the strategy's execution. Additionally, will identify and engage with relevant stakeholders, and develop communication channels to keep stakeholders informed about Biosafety matters.

Furthermore, the Authority will implement a comprehensive risk assessment and management system to proactively identify and mitigate potential risks. This will involve developing and executing tailored risk mitigation measures while concurrently offering capacity-building programs for both employees and stakeholders. The Authority will also establish a robust Biosafety information management system, digitalize processes to enhance overall efficiency, incorporate productivity mainstreaming and embrace internationally recognized quality standards for Biosafety management. To ensure ongoing adherence to these standards, regular quality audits will be conducted. Additionally, the Authority will maintain a consistent monitoring and evaluation process to assess the plan's implementation and make necessary adjustments.

The Authority will actively seek feedback from stakeholders and utilize this valuable input to refine internal systems, processes, and Standard Operating Procedures as needed. This process will include a comprehensive evaluation of existing internal systems, processes, and SOPs, with a focus on assessing their alignment with the strategic plan's objectives. The Authority will develop a comprehensive action plan aimed at either updating or establishing new internal systems and processes where deemed necessary. This approach ensures that these systems play a pivotal role in facilitating the successful execution of the Strategic Plan.

6.3 RISK MANAGEMENT FRAMEWORK

In order to guarantee the safe and responsible handling of genetically modified organisms and related activities, the Authority acknowledges the significance of efficient risk management. This plan's implementation is subject to a number of risks, including financial, strategic, operational, and technological ones. Risk management initiatives will be integrated into the Authority's systems and procedures during the Strategic Plan timeframe. The threats that The Authority faces today arise from both the internal and external environment. The development of the strategy has been informed by the suitable mitigation methods that have been identified for each risk. The creation and upkeep of risk registers for each individual directorates and departments will be a major responsibility of the heads of directorates and departments. The risk matrix and framework are presented in Tables 6.4 and 6.5 respectively.

Table 6.4 Risk Matrix

Risk Assessment Matrix		IMPACT/CONSEQUENCE		
		3	2	1
LIKELIHOOD		High	Medium	Low
3	High	High (9)	Medium (6)	Medium (3)
2	Medium	Medium (6)	Medium (4)	Low (2)
1	Low	Medium (3)	Low (2)	Low (1)
Risk rating	Score			
High	7-9			
Medium	3-6			
Low	1-2			

Table 6.5 Risk Management Framework

S/No	Risks	Risk Likelihood L/M/H	Severity L/M/H	Overall Risk Level L/M/H	Mitigation Measures
1	Budgetary constraints	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Optimize the use of available resources • Diversify funding sources/Resource Mobilization • Negotiate for enhanced budgetary allocation
2	Loss of critical manual and electronic records	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Develop and implement an institutional Disaster Recovery system • Establish and implement an Information Security Management System (ISMS)
4	Loss of key personnel	M (2)	H (3)	M (6)	<ul style="list-style-type: none"> • Implement the existing Succession Management plan. • Improve staff retention strategies
5	Extensive porous borders	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Negotiation with neighboring countries on the need for securing the borders • Sensitize communities along the borders • Increase collaboration with partner institutions operating at the borders • Enhance regional harmonization and capacity building • Strengthen penalties for unauthorized GMO releases
6	Misunderstanding of the role of the Authority	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Carry out vigorous awareness campaign on the Authority's mandate

S/No	Risks	Risk Likelihood L/M/H	Severity L/M/H	Overall Risk Level L/M/H	Mitigation Measures
7	Low Corporate visibility	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Upscale public awareness • Engage in frequent CSR activities • Carry out corporate rebranding
8	Cybersecurity threats	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Enhance cybersecurity measures. • Regularly update and test security protocols.
9	Litigations	M (2)	M (2)	M (4)	Ensure compliance with national and international laws.
10	Intellectual property disputes	M (2)	M (2)	M (4)	<ul style="list-style-type: none"> • Clearly define intellectual property rights in GMO agreements. • Seek legal mediation when disputes arise.

CHAPTER SEVEN

RESOURCE REQUIREMENTS AND MOBILIZATION STRATEGIES

This chapter presents financial requirements, resource mobilization strategies and management’s commitments to prudently managing the resources received.

7.1 FINANCIAL REQUIREMENTS

Adequate financial resources are a crucial component for implementing this strategic plan effectively. The estimated five (5) year financial requirements for this Strategic Plan have been guided by the estimates in the five (5) year implementation matrix developed on a year-to-year basis per Key Result Area. This shall be implemented through the annual work plan, procurement plan and budget.

Implementation of this Strategic Plan will be based on activities per each Key Result Area. The resources required for implementation is estimated at Kshs. 1.949 billion as presented in the table 7.1 below.

Table 7.1: Financial Requirements for Implementing the Strategic Plan

Cost Item	Projected Resource Requirements (Kshs.Mn)					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
KRA 1: Public Awareness and Education on Biosafety	22.0	29.0	74.5	74.0	86.0	285.5
KRA 2: Dynamic Laws and Institutional Policies on Biosafety	8.0	14.2	23.0	12.0	33.2	90.4
KRA 3: Biosafety Assessments	3.1	11.9	27.0	33.2	39.5	114.7
KRA 4: Compliance and Enforcement	6.3	10.6	45.6	57.6	70.6	190.7
KRA 5: Biosafety Information Management	0	0	9.5	12.5	9.5	31.5
KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD	0.1	4.1	10.0	8.0	11.0	44.7

Cost Item	Projected Resource Requirements (Kshs.Mn)					
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
KRA 7: Infrastructural and Operational Efficiency	7.1	25.35	96.0	101.9	93.8	324.15
KRA 8: Human Resource Management	12.0	64.9	105.8	103.9	109.4	396.0
Administrative Costs	181.4	127.95	0	36.4	126.0	471.75
Total	240.0	288.0	391.4	454.0	576.0	1,949.4

* Projection for KRA 1, KRA 4 and KRA 7 are drawn from MTP IV projects

The table 7.2 outlines the projected resource gaps for the implementation of the strategic plan. The Authority has put in place resource mobilization strategies to ensure that any financing gaps are addressed. This will ensure that all the activities that are budgeted for within the strategic plan are undertaken.

Table 7.2 Resource Gaps

Financial Year	Estimated Financial Requirements (Ksh. Mn)	Estimated Allocations (Ksh. Mn)	Variance (Ksh. Mn)
Year 1	240.0	240.0	0
Year 2	288.0	183.9	-104.1
Year 3	391.4	221.9	-169.5
Year 4	454.0	240.0	-214.0
Year 5	576.0	258.0	-318.0
Total	1,949.4	1,143.8	-805.6

7.2 RESOURCE MOBILIZATION STRATEGIES

The Authority expects to mobilize resources from several sources such as recurrent and development grants by GOK, revenue generated from services rendered and development partner funds from collaborations. The Authority will employ various resource mobilization strategies; partnerships and collaborations, capacity building and development among others. The following strategies will be employed to mobilize funds for the Authority.

- i. Development of concept and project proposals to GoK and development partners:** The Authority shall develop competitive proposals for grants to strategic development partners interested in biosafety programmes. The proposals will include funding for public awareness and training.
- ii. Improving efficiency through digitalization of services for collection of Fees and levies for services rendered:** The Authority shall raise funds from allowable fees and levies charged for services rendered in its normal course of business/operations and advertisements. Fees from GMO services from the Authority is a major source of revenue for the Authority. It is projected that with the planned review of the Biosafety Act CAP 320, this source of income will be boosted significantly. The review will open more revenue streams by creating more chargeable services rendered by the Authority.
- iii. Marketing of NBA to increase collection from conference Charges:** The Authority shall continue to hold Biosafety conferences alongside other engagements around the country to create awareness on Biosafety while also mobilizing resources.
- iv. Laboratory charges:** The Authority established a GMO testing laboratory at the head quarter which has already been operationalized. The Authority will generate income through testing of GMOs from private samples from research institutions and private sector e.g. seed industry.
- v. Partnership and collaboration:** The Authority will identify, map, partner and collaborate with stakeholders to enhance its resource base. The key activities for partnership and collaboration strategies shall include sponsorship, research and development partner funding.
- vi. Capacity building and development:** The Authority will raise revenue through the provision of training services to capacity build Biosafety experts. The key activities will include charged workshops, conferences and e-learning content.
- vii. Securing enhanced GoK funding/Grants:** The GoK has remained the single most important source of funding for NBA. The Authority will continue to participate in resource bidding mechanisms provided by the National Treasury through the Medium-Term Expenditure Framework. This entails submission of proposals for engagement to the National Treasury for additional funding.

7.3 RESOURCE MANAGEMENT

The Authority will employ measures to optimize the use of available resources by improving efficiency and reducing wastages. To ensure prudent financial management, the Authority will deploy its financial resources in accordance to the Public Finance Management Act, 2012 and the Public Procurement and Disposal Act, 2015. Additionally, the Authority shall employ effective cost saving measures which will be implemented in all the functional areas. To achieve this, the Authority shall;

- a. Continuously enhance automation of all processes to increase efficiency in financial management and procurement of goods;
- b. Optimize programs and activities to avoid duplication, wastage and reduce inefficiency in using funds;
- c. Ensure proper maintenance of Authority's equipments and vehicles;
- d. Enhance paperless communication by leveraging ICT platforms and electronic modes of communication such as emails and virtual meetings; and
- e. Implement management committee's recommendations on financial management and periodically monitor and evaluate projects and programs.

CHAPTER EIGHT

MONITORING, EVALUATION AND REPORTING FRAMEWORK

This chapter outlines the mechanisms by which the Authority will track, evaluate, and report on the implementation progress of this strategic plan. Effective monitoring and timely reporting are essential to ensure that the strategic objectives are being met, resources are used efficiently, and adjustments are made proactively to address emerging challenges or changes in the operating environment.

8.1 MONITORING FRAMEWORK

Monitoring will play a crucial role in ensuring that the implementation of the Strategic Plan remains on track and will help identify any necessary adjustments. Monitoring, evaluation and reporting will be an integral part of the Authority's performance management system and will be a continuous process. This will involve routine data collection, analysis, and reporting on the progress of the Strategic Plan implementation which will be coordinated by the Planning department.

The Strategic plan will be cascaded to all staff to enable them understand their role in the broader strategy. Each department will prepare annual work plans aligned with the objectives, strategies, and activities outlined in the implementation matrix. These departmental work plans will be further cascaded into individual employees' annual targets, which will be integrated into the Authority's performance management system. Progress for each activity will be measured against specific targets in the Plan and reporting done on a quarterly and annual basis. Results from the analysis shall then be used to inform decision-making, identify challenges and take immediate corrective action where deviations in implementation are noted.

The monitoring of financial and other resources will constitute part of the monitoring, evaluation and reporting system to ensure that all the resources are utilized in accordance with the approved work plans, budgets, financial management guidelines and regulations to ensure accountability.

8.2 PERFORMANCE STANDARDS

The Authority's monitoring and evaluation framework that will be utilized to assess the performance is based on relevance, efficiency, effectiveness, success, and sustainability. The Authority has aligned its strategic objectives and activities with the identified needs and priorities of the target customers. For efficiency, the Strategic Plan optimizes resource utilization to enhance the Authority's operations. In addition, evaluations will be undertaken to determine success and assess whether the outcomes contribute to positive and lasting changes. The M&E process will prioritize generating relevant and practical information and findings will be disseminated in appropriate formats. Reports will be objective, reliable, and consistent, supporting timely corrective actions, continual learning, informed decision-making and accountability.

Further, to enhance sustainability, the Authority will strengthen the capacity of the Board and ensure sustainable resourcing. The Strategic Theme Teams have been identified and their respective TORs drawn to ensure accountability. The teams are as shown in Annex II and they will be coordinated by the HOD, Planning and will be responsible for data collection for their respective KRAs.

8.3 EVALUATION FRAMEWORK

Evaluation will help examine how effectively the plan was implemented and whether there are gaps between the planned and achieved results. It will also establish the extent to which the planned objectives have been achieved. In addition, evaluation will determine whether there are changes in the organizational performance as a result of the initiatives being undertaken.

An outcome-performance matrix is provided to guide monitoring and evaluation. It indicates the KRAs, expected outcomes, key performance indicators, baseline, mid-term targets and end-term targets. The outcome performance matrix is provided in Ta

Table 8.1 shows outcomes performance matrix which details strategic objectives, outcome, outcome indicator, baseline and target.

Table 8.1: Outcome Performance Matrix

Key Result Area	Outcome	Outcome indicator	Baseline		Target	
			Value	Year	Mid-Term Period	End-Term Period
KRA 1: Public Awareness and Education on Biosafety	Enhanced public understanding of Biosafety through awareness programs, educational forums and effective corporate communication	% change of public awareness	23%	2021/22	5%	5%
KRA 2: Dynamic Laws and Institutional Policies on Biosafety	Regulation of emerging technologies	No. of modern biotechnologies brought under the Authority regulatory framework	1	2010/2011	-	3
KRA 3: Biosafety Assessments	Reduced risk of exposure to unapproved GMOs	% of the GMO and GMO-derived products in the market that are approved	100%	2022/23	100%	100%
KRA 4: Compliance and Enforcement	Enhanced compliance with the Biosafety regulatory framework	% level of compliance by the licensees	100%	2022/23	100%	100%
		% level of monitoring and enforcement by the Authority	100%	2022/23	100%	100%

Key Result Area	Outcome	Outcome indicator	Baseline		Target	
			Value	Year	Mid-Term Period	End-Term Period
KRA 5: Biosafety Information management	Enhanced management and accessibility of national biosafety information for effective regulation	Biosafety information module developed within the Electronic Document Management System (EDMS)	0	2022/23	-	1
KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD	Enhanced implementation of the Cartagena Protocol on Biosafety under the CBD	% level of implementation of nationally adopted decisions	40%	2022/23	100%	100%
	Improved global engagement	No. of MOUs drafted for collaboration with other countries and their competent national authorities to the CPB	0	2022/23	-	3
KRA 7: Infrastructural and Operational Efficiency	Enhanced institutional infrastructure	Additional Border offices established	3	2013/2014	2	2
		pre-construction approvals of the	0%	2022/23	35%	15%

Key Result Area	Outcome	Outcome indicator	Baseline		Target	
			Value	Year	Mid-Term Period	End-Term Period
		laboratory and proposed headquarters				
	Enhanced productivity and internal controls	Productivity index	-	2022/23	3.0	3.2
	Positive public perception of the Authority	% change in the Public Perception Survey	-	-	Baseline	-
KRA 8: Human Resource Management	Improved staff performance	Skills gap analysis report	1	2022/23	-	-

8.3.1 Mid-Term Evaluation

The mid-term evaluation will be conducted halfway through the implementation cycle in the FY 2025/26 to evaluate the progress made towards achieving the strategic objectives. The review will also identify any necessary adjustments and assess the relevance of the Plan to that particular operating environment, and align it accordingly if necessary. A mid-term evaluation report will highlight the achievements, challenges experienced, lessons learnt and recommendations for improvement. The process will entail data collection, data analysis, preparation and presentation of reports, and drafting of the Management response. The findings will inform the formulation of the Revised Strategic Plan if necessary.

By conducting this evaluation, the Authority commits to continual improvement, ensuring that activities remain relevant, aligned with overarching goals, and responsive to both data-driven performance insights and external developments. The evaluation will be coordinated by the Planning department.

8.3.2 End-Term Evaluation

The Authority will conduct an end-term evaluation at the end of the implementation period in the FY 2027/2028 to assess the success rate in the implementation of the Strategic Plan as well as the impact of the implemented strategic initiatives. An end-term evaluation report will highlight key achievements, challenges experienced, lessons learnt and recommendations for improvement. End-term evaluation will entail data collection, data analysis, preparation and presentation of reports, and drafting of the Management response. The findings will inform the formulation of the next Strategic Plan. The evaluation will be coordinated by the Planning department.

8.4 REPORTING FRAMEWORK AND FEEDBACK MECHANISM

Reporting will be a key component in the implementation of this Plan. The Planning department will coordinate the collection of data, data analysis, and the preparation of progress reports on a quarterly and annual basis.

The heads of Directorates/Departments (HODs) shall prepare quarterly reports for their respective Directorates/Departments on the implementation of the Strategic Plan and submit them to the head of Planning for compilation. The C.E.O and HODs will hold a quarterly management review to review the status of the Strategic Plan implementation. The CEO shall on a quarterly basis table a report on the implementation of the Strategic Plan to the Board, with the fourth quarter of each financial year consisting of an annual report. The output of the quarterly monitoring will be a Strategic Plan review report while the output of the annual review shall be an annual report for the period

The Strategic Plan will be evaluated during and after implementation to assess the effectiveness of the strategic initiatives, identify challenges and lessons that should be considered in the preparation a strategic plan for the next period.

During the implementation of the Strategic Plan, monitoring and evaluation will be undertaken using the quarterly progress reporting template (Table 8.2), annual progress reporting template (Table 8.3), and evaluation reporting template (Table 8.4), as provided below.

**NATIONAL BIOSAFETY AUTHORITY
 QUARTERLY PROGRESS REPORT
 QUARTER ENDING**

Table 8.2 Quarterly Progress Reporting Template

Expected Output	Output Indicator	Annual Target (A)	Quarter for year ...			Cumulative to Date			Remarks	Corrective Intervention
			Target (B)	Actual (C)	Variance (C-B)	Target (E)	Actual (F)	Variance (F-E)		

**NATIONAL BIOSAFETY AUTHORITY
 ANNUAL PROGRESS REPORT
 YEAR ENDING**

Table 8.3 Annual Progress Reporting Template

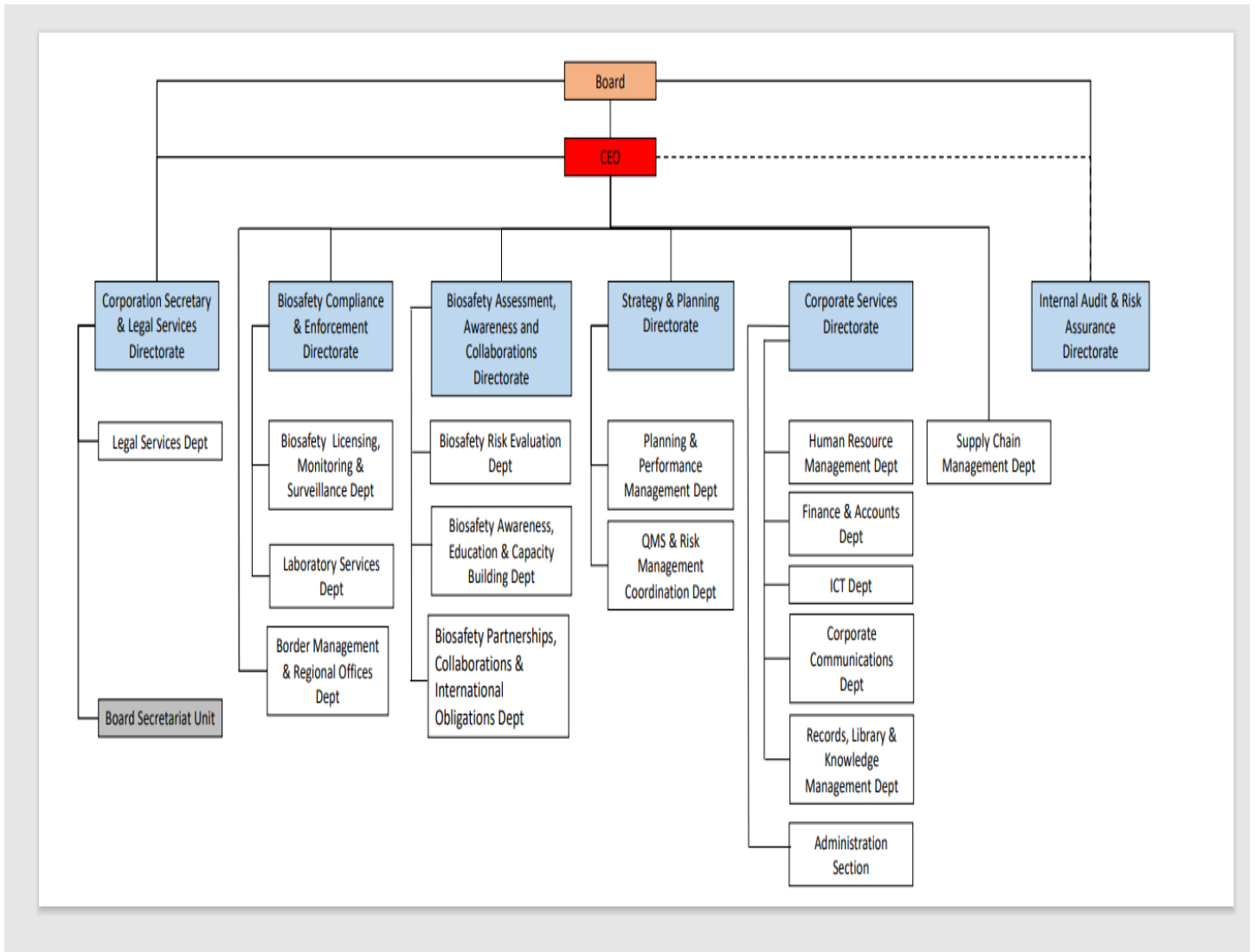
Expected Output	Output Indicator	Achievement for year ...			Cumulative to date			Remarks	Corrective Intervention
		Target (A)	Actual (B)	Variance (B-A)	Target (D)	Actual (E)	Variance (E-D)		

Table 8.4: Evaluation Reporting Template

Key Result Area	Outcome	Output Indicator	Baseline		Mid-Term Evaluation		End of Plan Period Evaluation		Remarks	Corrective Intervention
			Value	Year	Target	Achievement	Target	Achievement		

ANNEXES

ANNEX I: THE AUTHORITY ORGANIZATION STRUCTURE



ANNEX II: STRATEGIC THEME TEAMS

KRA 1: Public Awareness and Education on Biosafety

Strategic Theme Teams: Biosafety Assessment, Awareness & Collaborations Directorate, Corporate Services Directorate.

The team shall:

- i.** Develop and implement public awareness campaigns on biosafety
- ii.** Establish and ensure maintenance of a roster of biosafety experts and coordinate the engagement of biosafety experts and consultation of relevant regulatory agencies on biosafety matters;
- iii.** Conduct education and capacity building;
- iv.** Create an interactive and effective environment for communication and collaboration with diverse stakeholders;
- v.** Coordinate the development of appropriate public communication strategies; preparing public education materials and communication plans for awareness creation;

KRA 2: Dynamic Laws and Institutional Policies on Biosafety

Strategic Theme Teams: Corporation Secretary and Legal Services Directorate, Strategy & Planning Directorate, Biosafety Assessment, Awareness & Collaborations Directorate, Biosafety Compliance & Enforcement Directorate, Corporate Services Directorate

The team shall:

- i.** Provide advice on legal and corporate governance matters;
- ii.** Develop and review relevant regulatory Legal framework for the Authority;
- iii.** Conduct gap analyses and review the Biosafety Act CAP 320, Regulations, and institutional policies.
- iv.** Draft amendments and align frameworks with regional/international standards (e.g., Cartagena Protocol).
- v.** Spearhead policy formulation and review in line with relevant laws and Government Circulars;
- vi.** To initiate the formulation, review and implement of policies and procedures;
- vii.** Liaise with the office of the Attorney General and other government agencies on legal matter;

KRA 3: Biosafety Assessments

Strategic Theme Teams: Biosafety Assessment, Awareness & Collaborations Directorate, Compliance and Enforcement Directorate, Corporate Services Directorate, Corporation Secretary & Legal Services Directorate

The team shall:

- i.** Ensure implementation of the Biosafety Act CAP 320 and Regulations;
- ii.** Digitization of processes to facilitate regulation of GMOs
- iii.** Develop operational guidelines and manuals necessary for effective implementation of departmental mandates.
- iv.** Consider and determine applications for approval for the transfer, handling and

use of genetically modified organisms, and related activities.

- v.** Process and implement Board decisions including GMO approvals documents
- vi.** Prepare relevant technical papers, reports and other submissions for consideration by the Board;
- vii.** Establish and ensure maintenance of GMO Applications' Register;
- viii.** Establish and ensure maintenance of a roster of biosafety experts and coordinate the engagement of biosafety experts and consultation of relevant regulatory agencies on biosafety matters;
- ix.** Establish and manage administrative mechanisms to ensure confidential handling and storage of documents and data in connection to the processing of applications and other matters under the Biosafety CAP 320;
- x.** Ensure establishment and strengthening of Institutional Biosafety Committees (IBCs) in research and academic institutions engaged in GMO research-related activities;
- xi.** Coordinate training of regulatory agencies, expert reviewers and biosafety professionals in GMO research-related activities;
- xii.** Coordinate training of assessors on safety assessments and socio-economic impact assessments;
- xiii.** Coordinate technology infrastructure in line with the Authority's goals and changing technologies;
- xiv.** Ensure compliance to international obligations on biosafety;

KRA 4: Compliance and Enforcement

Strategic Theme Teams: Biosafety Compliance and Enforcement, Biosafety Assessment, Awareness & Collaborations Directorate, Corporate Services Directorate

The team shall:

- i.** Digitize processes to facilitate biosafety in transboundary movement of GMOs;
- ii.** Coordinate the processing and issuance of GMO-Free certificates for non-GMO export commodities;
- iii.** Ensure proper labelling and traceability of approved GM foods, feeds, seeds and other commodities;
- iv.** Coordinate post release monitoring of commercialized genetically modified plants, animals and microorganisms;
- v.** Review post market data submitted by applicants, Regulatory agencies and any other stakeholder for regulatory decisions;
- vi.** Conduct market surveillance activities nationally and at counties for purposes of testing;
- vii.** Coordinate Border Management and Regional Offices;
- viii.** Conduct surveys, research to inform the Board and Management on topical matters and biosafety issues;
- ix.** Coordinate GMO Testing and Laboratory Services;
- x.** Monitoring and surveillance activities to ensure compliance with biosafety regulations;
- xi.** Coordinate the affairs of Border Management and Regional Offices;
- xii.** Enforce compliance through inspections and appropriate actions against

- violations;
- xiii.** Ensure implementation of programs in accordance with the Biosafety Act CAP 320 and Regulations;
- xiv.** Develop GMO sampling, detection and analysis protocols; and
- xv.** Facilitate timely analysis of GMO samples and other analytical tests.
- xvi.** Coordinate the monitoring of approved GMO research projects in containment and confinement facilities;
- xvii.** Coordinate technology infrastructure in line with the Authority's goals and changing technologies

KRA 5: Biosafety Information Management

Strategic Theme Teams: Biosafety Assessment, Awareness & Collaborations Directorate, Biosafety Compliance and Enforcement Directorate, Corporate Services Directorate

The team shall:

- i.** Coordinate the Authority's Management Information Systems and security;
- ii.** Coordinate technology infrastructure in line with the Authority's goals and changing technologies;
- iii.** Provide technical, strategic and policy advice on ICT matters and implementation of various ICT work processes, procedures and other administrative related matters; and
- iv.** Coordinate and organize protocol functions and other events of the Authority. Development of comprehensive Records and Knowledge Management systems for the preservation of corporate memory and dissemination of information resources;

KRA 6: International Partnerships and Collaborative Engagement in the Implementation of the Protocol and the CBD

Strategic Theme Team: Biosafety Assessment, Awareness & Collaborations Directorate, Corporation Secretary and Legal Services Directorate

The team shall:

- i.** Coordinate the management of the Biosafety Clearing House (BCH);
- ii.** Ensure compliance to international obligations on biosafety;
- iii.** Coordinate the development and domestication of relevant standards on biosafety;
- iv.** Draft and review legal documents including Memorandum of Understanding, and other legal documents for the Authority;
- v.** Oversee formulation, vetting, review, negotiations of agreements and Memorandums of Understanding

KRA 7: Infrastructural and Operational Capacity

Strategic Theme Team: Corporate Services Directorate, Biosafety Assessment, Awareness & Collaborations Directorate, Biosafety Compliance and Enforcement Directorate, Internal Audit & Risk Assurance Directorate, Strategy & Planning Directorate, Supply Chain Department.

The team shall:

- i.** To initiate the formulation, review and implement policies, plans and strategies in the functional areas of Finance and Accounting, Human Resource Management, Administration, Information Communications Technology, Corporate Communication and Records, Library & Knowledge Management;
- ii.** Oversee the development and implementation of financial regulations, strategies, internal controls and plans for effective and efficient use of resources;
- iii.** Coordinate the Authority's Management Information Systems and security;
- iv.** Coordinate technology infrastructure in line with the Authority's goals and changing technologies;
- v.** Provide technical, strategic and policy advice on ICT matters and implementation of various ICT work processes, procedures and other administrative related matters;
- vi.** Coordinate the Authority's Quality Management system to ensure continuous improvement;
- vii.** Coordinate the development of appropriate public communication strategies; preparing public education materials and communication plans for awareness creation;
- viii.** Provide interface between the Authority and other stakeholders to ensure enhanced corporate image, visibility and stakeholder engagement;
- ix.** Coordinate corporate social responsibility activities; and
- x.** Ensure custody of all Authority assets, controlling and monitoring of the location and movement of equipment;
- xi.** Make independent reviews of internal control systems and verification of operations and activities with a view to assessing economy, efficiency and effectiveness with which the organization's resources are utilized;
- xii.** Evaluate and assess risk management, control and governance in the Authority;
- xiii.** Conduct regular audits to ascertain effectiveness and efficiency of operations, compliance with policies, procedures, statutory laws and the industry best practices;
- xiv.** Periodically assess Authority's accounts and financial control systems to evaluate and advise on the reliability and integrity of financial information and the efficient and effective use of resources;
- xv.** Provide recommendations and advice on improvements to the Authority's system and procedures;
- xvi.** Prepare, review and implement the internal audit charter;
- xvii.** Plan and undertake audits to assess controls, operational and technical efficiencies and compliance with policies, procedures and regulations;
- xviii.** Recommend mitigation measures to address identified weaknesses where necessary;

KRA 8: Human Resource Management

Strategic Theme Team: Corporate Services Directorate.

The team shall:

- i.** To initiate the formulation, review and implement policies, plans and strategies in the functional areas of Finance and Accounting, Human Resource Management, Administration, Information Communications Technology, Corporate Communication and Records, Library & Knowledge Management;
- ii.** Coordinate the design and review of administrative structure of the Organization, direction and control for effective organizational performance;
- iii.** Inculcate a culture that promotes team capability and reflects the values which facilitate performance, professionalism and innovation by staff throughout the Authority;
- iv.** Coordinate the Authority's human capital affairs, ensuring that the Authority has the right and sufficient human resource to meet its objectives;
- v.** Oversee Human Resources development and succession plan;



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