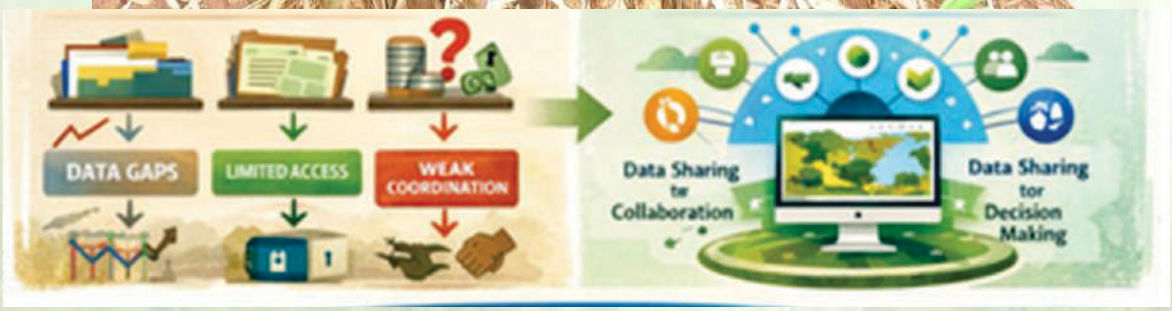
Situational Analysis and Needs Assessment REPORT



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ACRONYMS AND ABBREVIATIONS

ABS	Access and Benefit-Sharing
BMS	Biodiversity Monitoring System
BMES	Biodiversity Monitoring and Evaluation System
CBD	Convention on Biological Diversity
CHM	Clearing-House Mechanism
COP	Conference of the Parties to the Convention on Biological Diversity
DRSRS	Directorate of Resource Surveys and Remote Sensing
EIA	Environmental Impact Assessment
EA	Environmental Audit
FDIMS	Fisheries Data Information Management System
GBF	Global Biodiversity Framework
GIS	Geographic Information System
IBA	Important Bird and Biodiversity Area
IPLCs	Indigenous Peoples and Local Communities
IUU	Illegal, Unreported and Unregulated (Fishing)
KALRO	Kenya Agricultural and Livestock Research Organization
KBA	Key Biodiversity Area
KFS	Kenya Forest Service
KMFRI	Kenya Marine and Fisheries Research Institute
KMGBF	Kunming–Montreal Global Biodiversity Framework
KWS	Kenya Wildlife Service
LPI	Living Planet Index – indicator of global trends in vertebrate populations
MCS	Monitoring, Control and Surveillance (Fisheries Management)
MDAs	Ministries, Departments and Agencies
MoECCF	Ministry of Environment, Climate Change and Forestry
NBCHM	National Biodiversity Clearing-House Mechanism
NBCM	National Biodiversity Coordination Mechanism
NBMP	National Biodiversity Monitoring Programme
NBSAP	National Biodiversity Strategy and Action Plan
NEMA	National Environment Management Authority
NGO	Non-Governmental Organization
NMK	National Museums of Kenya
OA	Open Access – unrestricted access to data and information
SDBE&F	State Department for Blue Economy and Fisheries
SEA	Strategic Environmental Assessment
SEPP	Scientific, Educational, Public and Policy Use
SOPs	Standard Operating Procedures
TWG	Technical Working Group
UNEP	United Nations Environment Programme
WCMC	World Conservation Monitoring Centre
WRA	Water Resources Authority
WRMA	Water Resources Management Authority (former name of WRA)
WRTI	Wildlife Research and Training Institute

ACKNOWLEDGEMENTS

This Situational Analysis and Needs Assessment Report for the Kenya National Biodiversity Clearing-House Mechanism (CHM) Strategy and Action Plan (2026–2030) was developed through the leadership of the National Environment Management Authority, with policy guidance from the Ministry of Environment, Climate Change and Forestry as the national focal point for the Convention on Biological Diversity. The process benefited from the active participation of government institutions, research organizations, and stakeholders who provided valuable data, technical input, and insights that informed the assessment.

We also acknowledge the contributions of development partners, conservation organizations, and participants of the Technical Drafting and Multi-Stakeholder Engagement meetings, whose inputs strengthened the report and enhanced national ownership of the CHM process. Their continued collaboration will be critical in advancing a coordinated, accessible, and sustainable biodiversity information system for Kenya.

EXECUTIVE SUMMARY

Kenya, as a Party to the Convention on Biological Diversity (CBD), is required to establish and operationalize a national Clearing-House Mechanism (CHM) to support biodiversity conservation through improved information sharing, scientific cooperation, and knowledge management. This obligation has gained renewed urgency following the adoption of the Kunming–Montreal Global Biodiversity Framework (KMGBF), which calls for stronger national systems to support biodiversity monitoring, reporting, and implementation of global targets by 2030.

This Situational Analysis and Needs Assessment was undertaken to inform the development of the Kenya National Biodiversity CHM Strategy and Action Plan (2026–2030). The assessment examined the current state of biodiversity information management in Kenya, including existing data systems, institutional arrangements, capacity, and data-sharing practices. It also explored how biodiversity information is generated, managed, accessed, and used across different sectors and institutions.

The findings show that Kenya has a wealth of biodiversity data held by government agencies, research institutions, universities, and non-state actors. However, this information is largely fragmented and often managed in isolation, with limited coordination, inconsistent standards, and weak data-sharing mechanisms. As a result, it is not always readily accessible or usable for decision-making, planning, or reporting.

The assessment also found that while technical and institutional capacity exists, there are clear gaps in coordination, data management skills, and the use of digital tools. In addition, there is no fully functional national platform that brings together biodiversity information from different sectors in a structured and accessible way. Awareness and use of existing platforms are also relatively low, and funding for biodiversity information management remains limited.

A key opportunity identified is Kenya's adoption of the Bioland Tool, developed by the Convention on Biological Diversity Secretariat. This provides a practical and cost-effective way to establish a national CHM without investing in complex ICT systems. It allows the country to focus on what matters most—organizing existing data, improving coordination among institutions, and making information accessible and useful.

Overall, the assessment highlights that the priority for Kenya is not to build a new system from scratch, but to strengthen what already exists. This includes putting in place clear institutional arrangements, improving data standards and metadata, developing practical data-sharing protocols, and building capacity for content management and reporting.

The report concludes that a well-coordinated and sustainably managed CHM will play a critical role in supporting Kenya's biodiversity goals. It will improve access to information, strengthen collaboration among stakeholders, and support evidence-based decision-making. Most importantly, it will enable the country to effectively track and report on progress towards national priorities and global commitments under the CBD and the KMGBF.

The findings of this assessment provide a solid foundation for the development of the Kenya National Biodiversity CHM Strategy and Action Plan (2026–2030).

CHAPTER ONE: INTRODUCTION

1.1 Background

Biodiversity underpins Kenya's social, economic, and environmental well-being. The country is globally recognized for its rich biological diversity, encompassing a wide range of terrestrial, freshwater, coastal, and marine ecosystems that support livelihoods, food security, cultural heritage, ecosystem services, and national development. However, biodiversity in Kenya continues to face increasing pressures from habitat loss and fragmentation, climate change, pollution, invasive alien species, unsustainable resource use, and rapid population growth. Addressing these challenges requires timely, reliable, and accessible biodiversity information to inform policy, planning, implementation, and reporting at national and sub-national levels.

Kenya is a Party to the Convention on Biological Diversity (CBD) and is therefore obligated to promote the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the utilization of genetic resources. Article 18(3) of the CBD calls upon Parties to establish a Clearing-House Mechanism (CHM) to promote technical and scientific cooperation and facilitate the exchange of information related to biodiversity. The CHM is intended to serve as a central platform for sharing biodiversity-related data, information, knowledge, and best practices among governments, institutions, and stakeholders.

At the global level, the adoption of the Kunming-Montreal Global Biodiversity Framework (KMGBF) in 2022 further elevated the importance of effective biodiversity information systems. The KMGBF emphasizes evidence-based decision-making, monitoring, reporting, and review, and calls for strengthened national capacities for data generation, management, sharing, and use. A functional national CHM is therefore a critical enabling mechanism for tracking progress against global and national biodiversity targets, supporting national reporting to the CBD, and enhancing transparency and accountability.

In Kenya, biodiversity information is generated by a wide range of actors, including government ministries, departments and agencies (MDAs), county governments, research and academic institutions, civil society organizations, community-based organizations, the private sector, and development partners. While significant volumes of biodiversity-related data and information exist, these are often fragmented across institutions, stored in disparate systems, and shared inconsistently. In many cases, data remain inaccessible to potential users, limiting their contribution to policy formulation, environmental planning, investment decisions, and public awareness.

The National Environment Management Authority (NEMA), as the national focal point for the CBD and the lead agency for environmental management and coordination under the Environmental Management and Coordination Act (EMCA), has the mandate to coordinate biodiversity information management and reporting at the national level. Over the years, Kenya has made efforts to establish and operationalize a national CHM, including hosting biodiversity-related information on institutional websites and developing sector-specific databases. However, these efforts have not yet resulted in a fully integrated, standardized, and sustainably managed national CHM that meets the evolving requirements of the CBD, KMGBF, and national development frameworks.

The increasing emphasis on results-based biodiversity planning, mainstreaming of biodiversity across sectors, and enhanced national and global reporting has exposed gaps in Kenya's biodiversity information landscape. These gaps relate not only to technical infrastructure, but also to institutional coordination, governance arrangements, human capacity, financing, data standards, interoperability, and stakeholder engagement. Counties, which play a growing role in natural resource management under Kenya's devolved governance system, also face challenges in accessing and contributing to national biodiversity information systems.

In response to these challenges, and in line with Kenya's commitments under the CBD and KMGBF, there is a clear need to develop a comprehensive and forward-looking National Biodiversity Clearing-House Mechanism (CHM) Strategy and

Action Plan. The strategy is intended to provide a structured framework for strengthening biodiversity information management, promoting data sharing and collaboration, clarifying institutional roles, and ensuring that biodiversity information is effectively used to support decision-making, implementation of the NBSAP, and reporting obligations.

This background therefore sets the context for the situational analysis and needs assessment that informed the development of the National CHM Strategy and Action Plan. It highlights the policy, institutional, and operational imperatives for establishing a functional CHM that is nationally owned, inclusive, digitally robust, and responsive to Kenya's biodiversity priorities and international commitments.

1.2 Objectives of the Situational Analysis and Needs Assessment

The overall objective of the Situational Analysis and Needs Assessment was to support the development of a robust, coordinated, and sustainable National Biodiversity Clearing-House Mechanism that effectively facilitates biodiversity information exchange and technical cooperation in Kenya.

The specific objectives of the assessment were to:

1. Review and document the existing biodiversity monitoring and information management systems in Kenya, including their scope, coverage, and functionality.

2. Map key institutions involved in the generation, management, and use of biodiversity data, and assess their respective roles and mandates.

3. Identify gaps and challenges related to data availability, quality, standardization, accessibility, and interoperability.

4. Assess institutional, human resource, and technical capacities for biodiversity data management and participation in the national CHM.

5. Examine existing ICT infrastructure and tools supporting biodiversity information management and sharing.

6. Identify training, capacity-building, and resource needs required strengthening national and institutional CHM operations.

7. Generate practical recommendations and action areas to guide the formulation of the National CHM Strategy and Action Plan, in alignment with the NBSAP and the Kunming–Montreal Global Biodiversity Framework.

1.3 Scope of the Situational Analysis and Needs Assessment

The Situational Analysis and Needs Assessment covered a broad range of thematic, institutional, and geographic dimensions relevant to the effective functioning of a National Biodiversity Clearing-House Mechanism in Kenya.

In terms of geographic scope, the assessment focused primarily on the national level, while also taking into account biodiversity monitoring and data management activities undertaken at county level and within key ecosystems. Particular attention was given to institutions whose mandates span both national and sub-national jurisdictions, recognizing the devolved system of governance and the important role counties play in biodiversity management and reporting.

From an institutional perspective, the assessment encompassed government ministries, departments, and agencies (MDAs) with biodiversity-related mandates, including those responsible for environment, wildlife, forestry, fisheries, agriculture, and research. It also included non-governmental organizations, academic and research institutions, international conservation organizations operating in Kenya, and selected representatives of indigenous peoples and local communities involved in biodiversity monitoring and knowledge generation. The private sector was considered where relevant, particularly in relation to data management technologies and information systems.

The **thematic scope** of the assessment covered biodiversity monitoring systems, data collection methods, indicators, data management practices, information-sharing mechanisms, ICT infrastructure, human resource capacity, institutional

coordination arrangements, and financing for biodiversity information management. The assessment also examined existing policy and legal frameworks that influence access to, use of, and sharing of biodiversity data, including considerations related to access and benefit-sharing.

Overall, the scope of the assessment was designed to ensure a comprehensive understanding of the current biodiversity information landscape in Kenya, while remaining focused on issues directly relevant to the establishment and operationalization of an effective and sustainable national CHM.

1.4 Methodology

1.4.1 Overarching Approach

The situational analysis and needs assessment for the development of the National Biodiversity Clearing-House Mechanism (CHM) Strategy and Action Plan for Kenya was undertaken through a systematic, participatory, and evidence-based approach. The overarching methodology was informed by Kenya's obligations under the Convention on Biological Diversity (CBD), particularly Article 18 on technical and scientific cooperation and information exchange, as well as emerging requirements under the Kunming–Montreal Global Biodiversity Framework (KMGBF).

The assessment was conceptualized within the context that Kenya is currently implementing the National Biodiversity Strategy and Action Plan (NBSAP) 2025–2030, which places increasing emphasis on results-based planning, monitoring, reporting, and knowledge management. However, the evolving global biodiversity agenda under the KMGBF requires more robust, integrated, and accessible biodiversity information systems to support national implementation, tracking of targets, and reporting to the CBD.

Recognizing that an effective CHM is a foundational enabler for biodiversity governance, the assessment focused on evaluating the existing biodiversity information landscape in Kenya. This included institutional arrangements, information flows, data generation and management systems, ICT infrastructure,

human and financial capacities, and mechanisms for data sharing and use. The overarching aim was to identify strengths, gaps, opportunities, and priority needs that would inform the design of a nationally owned, functional, and sustainable CHM.

The work further acknowledged that the CHM does not operate in isolation, but rather functions as an integrative platform that links biodiversity monitoring systems, research outputs, policy information, and implementation experiences across sectors and governance levels. As such, the assessment adopted a cross-sectoral and multi-stakeholder perspective, engaging national and county government institutions, research and academic organizations, civil society, development partners, and other biodiversity data producers and users.

From a conceptual standpoint, the consultancy combined two interrelated dimensions. The first involved diagnostic and analytical work aimed at understanding the current state of biodiversity information management and CHM-related initiatives in Kenya. The second focused on forward-looking design, involving the identification of strategic options, institutional arrangements, capacity-building needs, and practical actions required to operationalize an effective National CHM Strategy and Action Plan aligned with the KMGBF and national priorities.

1.4.2 Analytical and Assessment Approaches

To ensure a comprehensive and credible assessment, a combination of qualitative and quantitative approaches was applied. These approaches were guided by internationally recognized best practices for biodiversity information management and national CHM development, while remaining responsive to Kenya's institutional and governance context.

1.4.3 Institutional and Systems Mapping

A systematic mapping of institutions involved in the generation, management, hosting, and use of biodiversity data and information was undertaken. This included government ministries, departments and agencies (MDAs), county

governments, research institutions, universities, non-governmental organizations, community-based organizations, and private sector actors. The mapping sought to understand institutional mandates, roles, existing data systems, information products, and linkages among institutions.

1.4.4 SWOT Analysis

A strengths, weaknesses, opportunities, and threats (SWOT) analysis was conducted to assess existing biodiversity information systems and CHM-related initiatives. This analysis helped to identify what is currently working well, areas of systemic weakness, emerging opportunities such as digital transformation and open data initiatives, and external or internal risks that may hinder CHM implementation.

1.4.5 Gap and Needs Assessment

Building on the systems mapping and SWOT analysis, a structured gap and needs assessment was carried out. This focused on identifying deficiencies in policy and legal frameworks, institutional coordination mechanisms, technical infrastructure, data standards and interoperability, human capacity, financing, and stakeholder engagement. Particular attention was paid to gaps affecting national reporting to the CBD and the implementation of the KMGBF.

1.4.6 Lessons Learned and Best Practices Review

The assessment examined lessons learned from previous and ongoing biodiversity information and CHM-related initiatives in Kenya, as well as relevant regional and global CHM experiences. This enabled the identification of best practices that could be adapted to the Kenyan context, including governance models, data-sharing arrangements, and sustainable financing approaches.

1.4.7 Data Collection Methods and Tools

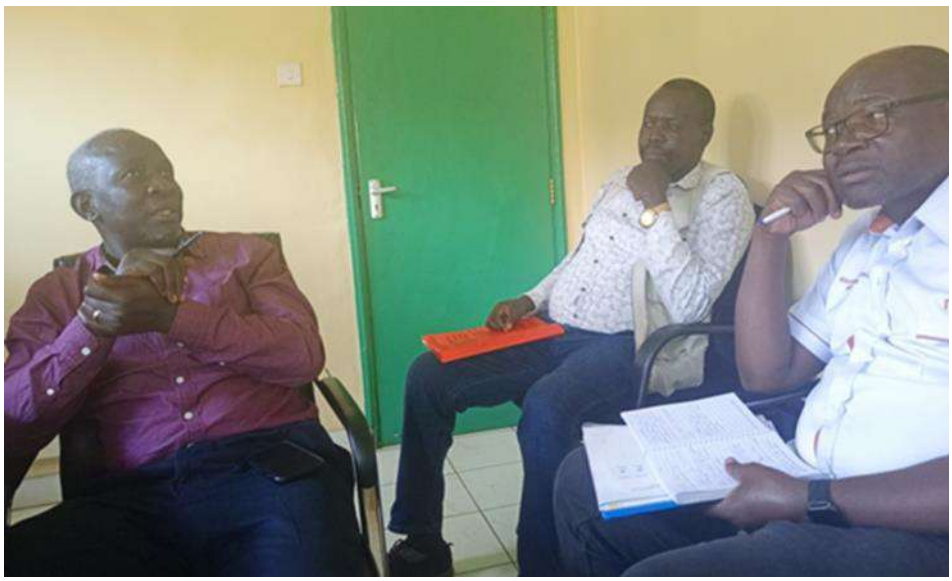
Multiple data collection methods and tools were employed to ensure triangulation of information and robustness of findings. These methods were applied in a complementary manner and tailored to different stakeholder groups.

1.4.8 Desk Review

An extensive desk review was conducted of relevant national, regional, and global policy and technical documents. These included the CBD and KMGBF decisions, the NBSAP 2019–2030, national environmental policies and strategies, sectoral biodiversity reports, existing databases and portals, institutional mandates, and previous assessments related to biodiversity information management and CHM implementation.

1.4.9 Key Informant Interviews

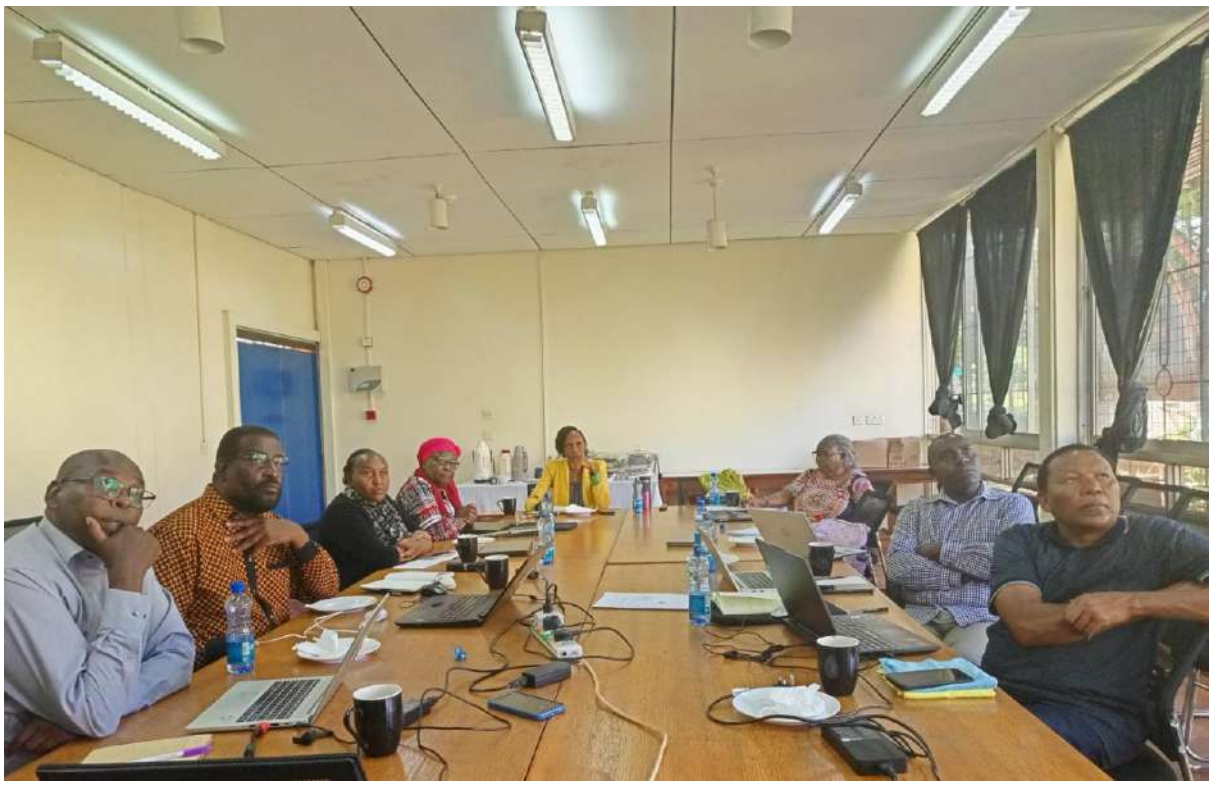
Semi-structured key informant interviews were held with representatives of selected MDAs, county governments, research institutions, and biodiversity data custodians. The interviews explored institutional roles, existing data systems, challenges in data sharing, capacity constraints, and expectations for the national CHM.



NEMA officers interviewing the Uasin Gishu County Director of Environment on the quality of Environment Impact Assessment Reports capturing biodiversity information

1.4.10 Stakeholder Consultative Meetings

A series of consultative meetings and workshops were organized to validate findings, gather stakeholder perspectives, and build consensus on priority needs and strategic directions. These forums provided an opportunity for open dialogue, collective problem-solving, and co-creation of ideas for the CHM Strategy and Action Plan.



Consultative meeting at National Museums of Kenya provided an opportunity to learn how we can strengthen biodiversity information sharing for reporting and IPBES Assessment

1.4.11 Structured Questionnaires and Assessment Tools

Structured questionnaires and assessment matrices were used to collect standardized information on institutional capacity, ICT infrastructure, data management practices, and human resource availability. These tools enabled comparative analysis across institutions and supported evidence-based identification of capacity gaps.

1.5 Data Analysis and Synthesis

Data collected through the various methods were systematically analyzed using qualitative content analysis and descriptive analysis techniques. Findings were synthesized across thematic areas, including governance and coordination, technical systems, capacity and resourcing, and data access and use. The analysis informed the development of strategic priorities, objectives, and actions for the National CHM Strategy and Action Plan.

1.6 Validation of Findings

Preliminary findings from the situational analysis and needs assessment were presented and validated through multi stakeholder engagement workshop. Feedback received during these sessions was incorporated into the final analysis and used to refine strategic recommendations, ensuring national ownership and relevance.

- Limited interoperability.
- Weak formalized data-sharing agreements.
- Minimal integration into a unified national knowledge portal.

Implications for CHM Development

Given the availability of substantial data, Kenya's CHM development priority is not data generation but:

- Structured aggregation,
- Standardized metadata documentation,
- Institutional coordination,
- Formal reporting integration.

The Bioland platform is well suited to host structured metadata and facilitate centralized access without replacing existing databases.

CHAPTER TWO: SITUATIONAL ANALYSIS FINDINGS

2.1 Overview

This chapter presents the findings of the situational analysis conducted to assess the current status of biodiversity information management in Kenya. The analysis focused on institutional arrangements, policy and legal frameworks, data and information systems, technical infrastructure, human capacity, coordination mechanisms, and resource availability relevant to the establishment and operationalization of the National Biodiversity Clearing-House Mechanism (CHM).

The findings are based on document reviews, stakeholder consultations, and inputs from technical workshops, and reflect both the progress made and the challenges that need to be addressed to develop a functional and sustainable CHM.

2.2 Institutional Arrangements for Biodiversity Information Management

Kenya has a well-established institutional landscape for biodiversity conservation and management, comprising government ministries, departments and agencies (MDAs), research institutions, academia, civil society organizations, and community-based organizations.

The National Environment Management Authority (NEMA) plays a central coordinating role as the national focal point for the Clearing-House Mechanism under the Convention on Biological Diversity. Other key institutions include sectoral agencies responsible for biodiversity data generation and management, such as the Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), National Museums of Kenya (NMK), Kenya Forestry Research Institute (KEFRI), and Kenya Marine and Fisheries Research Institute (KMFRI).

While these institutions generate significant biodiversity data, the analysis revealed that coordination among them remains limited. Data is often collected and managed independently within institutional mandates, with few formal mechanisms for regular data sharing or integration into a national system. As a

result, there is no centralized platform that consolidates biodiversity information across sectors.

Recent developments have strengthened the national coordination landscape through the establishment of a biodiversity coordination mechanism under the Ministry of Environment, Climate Change and Forestry. As the national focal point for the CBD, the Ministry provides overall policy direction and coordination for biodiversity-related initiatives in the country. This mechanism brings together key sectoral institutions to enhance alignment, information sharing, and coordinated implementation of biodiversity programmes.

Within this framework, the National Environment Management Authority (NEMA) plays a central operational role in coordinating environmental information and is designated to lead the implementation of the national CHM. This presents a strong institutional foundation for anchoring the CHM within an existing national coordination structure.

2.3 Policy and Legal Framework

Kenya has a strong policy and legal framework that supports biodiversity conservation and environmental management. Key frameworks include the Environmental Management and Coordination Act (EMCA), the Wildlife Conservation and Management Act, the Forest Conservation and Management Act, the Climate Change Act, and the Water Act.

These frameworks provide mandates for data collection, monitoring, and reporting within their respective sectors. In addition, Kenya's National Biodiversity Strategy and Action Plan (NBSAP 2019–2030) provides the overall framework for implementing biodiversity-related commitments under the CBD.

However, the analysis indicates that while these policies support biodiversity management, they do not explicitly provide clear guidance on biodiversity information sharing, interoperability, or the operationalization of a national CHM. This has contributed to fragmented data management practices and limited integration across sectors.

2.4 Biodiversity Data and Information Systems

Kenya possesses a wide range of biodiversity data and information systems developed and managed by different institutions. These include species databases, ecosystem monitoring systems, research repositories, and sector-specific information platforms.

Despite the availability of these systems, the analysis identified several challenges:

- Biodiversity data is highly fragmented and stored across multiple platforms.
- There is limited interoperability between systems, making it difficult to integrate data.
- Metadata standards are inconsistent or lacking, reducing data usability.
- Data is often not easily accessible to other institutions or the public.

In many cases, valuable biodiversity data exists but is underutilized due to lack of visibility and accessibility. The absence of a unified national platform further limits the ability to aggregate and analyze data for national reporting and decision-making.

- **Current Data Landscape**:
  While Kenya has a wealth of biodiversity data across MDAs, research institutions, NGOs, and counties, much of it is fragmented, siloed, and inconsistent.
- **Indicator Alignment Gap:**
  A major issue is that the existing datasets are not structured to answer the headline, component, complementary, and other GBF indicators. This limits Kenya's ability to report accurately on progress towards the Kunming–Montreal GBF targets.

- **Impact on Monitoring and Reporting:**
  Without alignment, national reports may fail to capture the real status of ecosystems, species, and benefits from biodiversity, weakening evidence-based decision-making and global accountability.

2.5 Technical Infrastructure and Digital Platforms

The assessment found that most institutions have basic ICT infrastructure to support data storage and management. However, the level of technological advancement varies significantly across institutions.

Some institutions have relatively advanced systems for data management and GIS applications, while others rely on manual or semi-digital processes. There is also limited integration of modern tools for real-time data sharing, visualization, and reporting.

A key opportunity identified is the adoption of the Bioland Tool, developed by the Convention on Biological Diversity Secretariat. The tool provides a ready-made platform for establishing a national CHM, reducing the need for costly system development. Its use allows Kenya to focus on content development, data organization, and institutional coordination rather than infrastructure development.

2.6 Human Capacity and Technical Expertise

Kenya has a strong base of technical expertise in biodiversity conservation, research, and environmental management. Institutions such as universities, research organizations, and government agencies have skilled personnel in ecology, taxonomy, and environmental science.

However, gaps were identified in specialized areas critical to CHM implementation, including:

- Biodiversity informatics
- Data management and analysis

- Geographic Information Systems (GIS)
- Digital content development and management
- Knowledge management and communication

In addition, there is limited capacity for managing standardized data, developing metadata, and contributing to national and global reporting frameworks.

2.7 Stakeholder Coordination and Collaboration

Stakeholder engagement in biodiversity conservation in Kenya is relatively strong, with active participation from government, research institutions, NGOs, and communities. However, coordination in relation to biodiversity information management remains weak.

There are limited formal platforms for regular interaction and data exchange among institutions. Existing collaborations are often project-based and not sustained beyond specific initiatives. This has led to duplication of efforts and inefficiencies in data use.

The analysis highlights the need for a structured coordination mechanism, including technical working groups and designated CHM focal persons within institutions, to improve collaboration and information flow.

2.8 Resource Availability and Financing

Funding for biodiversity information management and CHM-related activities is limited and often dependent on donor support. While institutions allocate resources for their core mandates, specific funding for data management, knowledge sharing, and CHM operations is not consistently prioritized.

This has affected the ability to maintain data systems, update information, and support capacity-building initiatives. There is also limited investment in long-term sustainability of biodiversity information platforms.

2.9 Summary of Key Findings

The situational analysis highlights the following key issues:

- Kenya has significant biodiversity data, but it is fragmented and poorly coordinated.
- There is no centralized, fully operational national CHM platform.
- Institutional coordination and data-sharing mechanisms are weak.
- Data standards, metadata, and interoperability are limited.
- Technical infrastructure exists but is uneven and underutilized.
- Human capacity gaps exist in key areas such as data management and informatics.
- Awareness and use of biodiversity information systems are low.
- Financial resources for CHM implementation are inadequate and unsustainable.

Overall, the findings point to the need for a **coordinated, structured, and sustainable approach** to biodiversity information management in Kenya. Strengthening governance, improving data systems, building capacity, and enhancing collaboration will be essential for the successful establishment and operationalization of the National Biodiversity Clearing-House Mechanism.

While coordination challenges remain, the establishment of the national biodiversity coordination mechanism provides a timely opportunity to strengthen integration of biodiversity information systems and support the operationalization of the CHM.

CHAPTER THREE: IDENTIFIED NEEDS AND GAPS

3.1 Overview

This chapter builds on the findings of the situational analysis and outlines the key gaps and priority needs for strengthening biodiversity information management in Kenya. It focuses on what is required to establish and operationalize a functional, coordinated, and sustainable National Biodiversity Clearing-House Mechanism (CHM).

The assessment confirms that Kenya already has strong foundations—established institutions, existing data systems, and a supportive policy environment. However, these elements are not yet working together in a coordinated and efficient way. The needs identified in this chapter therefore focus on improving how existing systems function, connect, and are sustained over time.

3.2 Institutional and Governance Needs

Kenya has recently taken an important step by establishing a biodiversity coordination mechanism under the Ministry of Environment, Climate Change and Forestry, which serves as the national focal point for the Convention on Biological Diversity. This provides a strong foundation for coordinating biodiversity-related work, including information management.

However, there is still a need to ensure that this coordination framework fully supports the requirements of the CHM.

Key gaps and needs include:

- The coordination mechanism is still evolving and requires clear operational linkages to biodiversity information management and CHM functions.
- Roles and responsibilities between the Ministry (policy coordination) and the National Environment Management Authority (technical coordination and implementation of the CHM) need to be clearly defined and formalized.

- There is a need to designate CHM focal persons within key institutions to support data flow and reporting. Ensuring that collected data is verified and aligned to GBF indicators
- Existing coordination platforms need to be strengthened to allow for regular engagement, information exchange, and joint planning.

Overall, the priority is not to create new structures, but to strengthen and operationalize existing ones so that they effectively support the CHM.

3.3 Data Management and Information System Needs

The assessment showed that Kenya has significant biodiversity data, but this data is fragmented and not easily accessible or usable at the national level.

Key gaps and needs include:

- Lack of standardized formats for data collection, storage, and reporting across institutions.
- Limited use of metadata, making it difficult to understand, share, and integrate datasets.
- Weak interoperability between existing systems, which prevents data from being combined or compared.
- Inconsistent practices for data validation, updating, and quality assurance.
- Absence of clear and widely accepted data-sharing protocols, leading to hesitation among institutions to share information.

To address these challenges, there is a need to develop and adopt common standards, guidelines, and practical tools that make data easier to manage and share.

3.4 Technical Infrastructure and Platform Needs

While many institutions have basic ICT systems in place, these are not sufficiently connected or optimized to support a national CHM.

Key gaps and needs include:

- Uneven access to ICT infrastructure and digital tools across institutions.
- Limited use of platforms for data visualization, analysis, and real-time sharing.
- Lack of standardized templates or metadata to link institutional data to GBF indicators.
- Limited interoperability between sectoral databases and the national CHM, making indicator-based aggregation difficult.

A major opportunity exists in the use of the Bioland Tool, supported by the Convention on Biological Diversity Secretariat. Rather than developing a new system, Kenya needs to focus on:

- Adapting and operationalizing the Bioland platform as the national CHM
- Ensuring institutions are able to contribute content and data effectively
- Making the platform user-friendly and accessible to different audiences

3.5 Human Capacity Needs

Kenya has a strong base of expertise in biodiversity conservation, but there are gaps in specific technical skills needed to support modern data systems and knowledge platforms.

Key gaps and needs include:

- Limited capacity in biodiversity informatics and data management
- Gaps in Geographic Information Systems (GIS) and spatial data analysis

- Limited skills in digital content development, communication, and knowledge management
- Need for better understanding of national and global biodiversity reporting frameworks

Addressing these gaps will require targeted and continuous capacity-building programmes, tailored to the needs of different institutions and roles. Staff in MDAs and partner institutions needs training on GBF indicators, data collection, validation, and reporting processes.

3.6 Stakeholder Engagement and Awareness Needs

The assessment found that awareness and use of biodiversity information systems, including the CHM, remain low among many stakeholders.

Key gaps and needs include:

- Limited awareness of the CHM and its potential benefits
- Low engagement of counties, academia, civil society, and the private sector in biodiversity information sharing
- Insufficient involvement of local communities and Indigenous Peoples in knowledge exchange
- Lack of structured communication and outreach strategies

There is a need to actively promote the CHM, not just as a technical platform, but as a practical tool that supports decision-making, education, and public awareness.

3.7 Financial and Sustainability Needs

Sustainable financing remains one of the most significant challenges for biodiversity information management in Kenya.

Key gaps and needs include:

- Limited allocation of funds for CHM-related activities within institutional budgets
- Dependence on short-term, project-based funding
- Lack of long-term planning for maintenance, updates, and capacity building

To address this, there is a need to:

- Integrate CHM activities into national and institutional budgeting processes
- Develop a clear resource mobilization strategy
- Leverage partnerships with development partners and the private sector
- Promote cost-effective approaches that build on existing systems

3.8 Cross-Cutting Needs

Across all thematic areas, several cross-cutting needs emerged:

- Clear policies and guidelines on data governance and sharing
- Stronger linkages between biodiversity information systems and national planning and reporting processes
- Alignment with global frameworks under the CBD and the Kunming–Montreal Global Biodiversity Framework
- Ensuring long-term institutional ownership and accountability
- Building a culture of collaboration and information sharing among institutions

3.9 Conclusion

The needs identified in this chapter highlight that the main challenge facing biodiversity information management in Kenya is not the absence of data or institutions, but the lack of coordination, standardization, and sustained support.

Kenya is well-positioned to establish a functional and effective CHM by building on existing systems and structures. The focus should be on making biodiversity information more accessible, more reliable, and more useful for those who need it.

These identified needs provide a clear basis for defining strategic priorities and interventions, which will guide the development of the Kenya National Biodiversity Clearing-House Mechanism Strategy and Action Plan (2026–2030).

CHAPTER FOUR: STAKEHOLDER PERSPECTIVES AND OPPORTUNITIES

4.1 Overview

This chapter presents the key perspectives, experiences, and recommendations gathered from stakeholders during consultations, technical workshops, and document reviews conducted as part of this situational analysis. It reflects the views of institutions and actors directly involved in biodiversity data generation, management, and use in Kenya.

Stakeholder engagement was essential in grounding this assessment in reality—moving beyond systems and frameworks to understand how biodiversity information is actually produced, shared, and applied. The insights captured in this chapter highlight both the practical challenges faced by institutions and the opportunities that exist to strengthen the national Clearing-House Mechanism (CHM).

4.2 Stakeholder Participation

The assessment brought together a diverse range of stakeholders involved in biodiversity conservation and information management. These included government ministries, departments and agencies (MDAs), research institutions, academia, civil society organizations, county governments, private sector actors, and representatives of Indigenous Peoples and Local Communities.

Key institutions included the National Environment Management Authority (NEMA), Kenya Wildlife Service (KWS), Kenya Forest Service (KFS), National Museums of Kenya (NMK), Kenya Forestry Research Institute (KEFRI), and other sectorial actors.

Importantly, stakeholders acknowledged the role of the Ministry of Environment, Climate Change and Forestry as the national focal point for the Convention on Biological Diversity, and the recent establishment of a national biodiversity coordination mechanism under the Ministry. This mechanism is increasingly seen as a critical platform for aligning biodiversity actions, including information management and CHM implementation.

4.3 Key Issues Raised by Stakeholders

Stakeholders shared candid reflections on the current state of biodiversity information management in Kenya. While progress has been made in data generation and sectoral systems, several recurring issues emerged:

a) Fragmentation of Biodiversity Information

Participants noted that biodiversity data exists in significant volumes across institutions, but remains scattered and disconnected. Many institutions maintain their own databases with limited linkages to others, making it difficult to obtain a comprehensive national picture. Some data lack national outlook in most cases they are site specific

b) Limited and Informal Data Sharing

While some data sharing occurs, it is often informal, project-based, or dependent on personal networks. There are few standardized protocols or agreements guiding how data is shared, accessed, or reused across institutions.

c) Coordination is improving but Not Yet Fully Operational

Stakeholders acknowledged the establishment of the biodiversity coordination mechanism under the Ministry as a positive step. However, they emphasized that it is still evolving and not yet fully operational in terms of supporting structured data exchange, CHM coordination, and routine collaboration.

d) Capacity Constraints in Data Management

Many institutions indicated that while they have technical expertise in biodiversity, they face challenges in managing digital data systems. Skills in biodiversity informatics, GIS, data analysis, and digital content development remain limited in some institutions.

e) Low Awareness and Use of the CHM Concept

A number of stakeholders were not fully familiar with the CHM or its practical application. This has limited active participation in biodiversity information sharing at the national level.

f) Resource and Sustainability Challenges

Limited financial resources were consistently cited as a constraint. Biodiversity data management and knowledge-sharing activities are often underfunded and not prioritized within institutional budgets.

4.4 Stakeholder Recommendations

Stakeholders proposed practical and experience-based recommendations to strengthen biodiversity information management and support the CHM:

- Build on the existing coordination mechanism under the Ministry to formally anchor the CHM within a national governance framework.
- Clearly define roles between the Ministry (policy coordination) and National Environment Management Authority (technical coordination and implementation of the CHM).
- Develop clear data-sharing guidelines and agreements to build trust and improve access to information.
- Establish standardized data and metadata formats to enhance interoperability across institutions.
- Strengthen capacity-building programmes focusing on practical skills such as data management, GIS, and digital platforms.
- Increase awareness and communication efforts to promote understanding and use of the CHM.

- Ensure that the CHM platform is **simple, accessible, and useful** to a wide range of users, including policymakers, researchers, and local communities.

4.5 Opportunities for Strengthening the CHM

Despite the challenges, stakeholders identified several strong opportunities that can support the successful development and implementation of the CHM:

a) Existing National Coordination Mechanism

The biodiversity coordination mechanism under the Ministry of Environment, Climate Change and Forestry provides a ready platform to anchor the CHM. This creates an opportunity to integrate biodiversity information management into ongoing national coordination processes.

b) Strong Institutional Presence

Kenya has well-established institutions with clear mandates in biodiversity conservation and data generation. These institutions provide a solid foundation for building a coordinated information system.

c) Availability of Biodiversity Data

A large amount of biodiversity data already exists across sectors. With better coordination and standardization, this data can be harnessed effectively for decision-making and reporting.

d) Adoption of the Bioland Platform

The availability of the Bioland Tool, supported by the Convention on Biological Diversity Secretariat, offers a practical and cost-effective solution for establishing the CHM without the need for complex system development.

e) Growing Demand for Data-Driven Decision-Making

There is increasing recognition across government and institutions of the importance of data in planning, monitoring, and reporting. This creates a favorable environment for strengthening biodiversity information systems.

f) Existing Partnerships and Networks

Ongoing collaborations between government, research institutions, NGOs, and development partners provide a strong basis for enhancing coordination and resource mobilization.

4.6 Opportunities for Collaboration and Partnerships

Stakeholders emphasized that the success of the CHM will depend on strong partnerships. Opportunities include:

- Strengthening collaboration between government agencies and research institutions to improve data quality and analysis.
- Engaging universities and academia in research, innovation, and capacity building.
- Working with civil society and community organizations to enhance local-level data collection and knowledge sharing.
- Exploring private sector involvement in supporting digital platforms and innovation.
- Leveraging international partnerships under the Convention on Biological Diversity to access technical and financial support.

4.7 Strengthening National Ownership of the CHM

A key message from stakeholders was that the CHM must be nationally owned and not seen as an external or project-driven initiative. This requires:

- Strong leadership and policy direction from the Ministry.
- Clear operational coordination by NEMA.

- Active participation of all institutions in contributing data and content.
- Integration of CHM activities into institutional workplans and national development processes.

Stakeholders emphasized that the CHM should not be developed as a parallel system, but rather as part of the existing national biodiversity coordination framework.

4.8 Conclusion

The stakeholder consultations revealed a clear and shared understanding of both the challenges and opportunities in biodiversity information management in Kenya. While gaps remain, there is strong willingness among institutions to collaborate and contribute to a national system.

The existence of an emerging coordination framework, combined with available data, institutional capacity, and new digital tools, provides a solid foundation for building a functional and sustainable CHM. Moving forward, the focus should be on strengthening coordination, improving data systems, building capacity, and ensuring that the CHM responds to the practical needs of its users.

CHAPTER FIVE: CONCLUSIONS AND STRATEGIC RECOMMENDATIONS

5.1 Overview

This chapter brings together the key findings from the situational analysis and stakeholder consultations and translates them into practical conclusions and strategic recommendations. It sets the direction for the development of the Kenya National Biodiversity Clearing-House Mechanism (CHM) Strategy and Action Plan (2026–2030).

The assessment has shown that Kenya is not starting from scratch. The country already has strong institutions, valuable biodiversity data, and an enabling policy environment. What is needed now is a more coordinated, structured, and sustainable approach to managing and sharing this information.

5.2 Key Conclusions

Several important conclusions emerge from this assessment:

First, Kenya has substantial biodiversity information, but it is spread across many institutions and systems. This fragmentation limits its usefulness for planning, decision-making, and reporting.

Second, institutional capacity exists, but coordination remains a challenge. The recent establishment of a biodiversity coordination mechanism under the Ministry of Environment, Climate Change and Forestry provides a strong foundation, but it needs to be fully operationalized to support biodiversity information management and CHM functions.

Third, there is no single, fully functional national platform that brings together biodiversity data in a structured and accessible way. This gap affects Kenya's ability to meet national and global reporting obligations effectively.

Fourth, technical and human capacity gaps persist, particularly in areas such as data management, biodiversity informatics, GIS, and digital communication.

Fifth, awareness and use of biodiversity information systems remain low, especially among non-technical stakeholders, counties, and local communities.

Finally, financial sustainability is a major concern, as biodiversity information management and CHM activities are not consistently funded or prioritized within institutional budgets.

Overall, the assessment confirms that the challenge is not the lack of data, but the lack of coordination, accessibility, and sustained investment in managing that data.

5.3 Strategic Direction

Based on these conclusions, the CHM should be developed as a practical, user-oriented system that builds on existing structures rather than creating new parallel ones.

The CHM should:

- Serve as Kenya's central platform for biodiversity information sharing
- Support national planning, monitoring, and reporting, including obligations under the Convention on Biological Diversity and the Kunming–Montreal Global Biodiversity Framework
- Be institutionally anchored within existing coordination structures, led by the Ministry and implemented by National Environment Management Authority
- Focus on making data accessible, usable, and relevant, rather than just storing information

5.4 Strategic Recommendations

5.4.1 Strengthen Institutional Coordination

There is a need to build on the existing biodiversity coordination mechanism under the Ministry and align it to support CHM functions.

Key actions include:

- Clearly defining roles between the Ministry (policy coordination) and NEMA (technical coordination of the CHM)
- Establishing a national CHM coordination framework within existing structures
- Designating CHM focal persons in key institutions
- Promoting regular coordination and information-sharing forums

5.4.2 Improve Data Management and Standardization

To make biodiversity information more useful, it must be better organized and standardized.

Key actions include:

- Developing and adopting national data and metadata standards
- Establishing clear data-sharing guidelines and protocols
- Strengthening systems for data validation, updating, and quality assurance
- Promoting interoperability between existing data systems

5.4.3 Operationalize the National CHM Platform

Kenya should move quickly to establish functional CHM using available tools.

Key actions include:

- Adopting and customizing the Bioland platform supported by the Convention on Biological Diversity Secretariat
- Aggregating and organizing existing biodiversity data into the platform
- Ensuring the platform is user-friendly, accessible, and regularly updated

- Linking the CHM to national reporting processes and systems

5.4.4 Strengthen Human Capacity

People are central to the success of the CHM.

Key actions include:

- Providing targeted training in data management, GIS, biodiversity informatics, and digital tools
- Building capacity for content development and knowledge sharing
- Supporting continuous learning and collaboration among institutions

5.4.5 Enhance Awareness and Stakeholder Engagement

The CHM will only be effective if it is widely known and used.

Key actions include:

- Developing and implementing a communication and awareness strategy
- Promoting the CHM among counties, academia, civil society, and the private sector
- Encouraging participation of local communities and Indigenous Peoples in knowledge sharing
- Producing simple, accessible information products for different audiences

5.4.6 Mobilize Sustainable Financing

Long-term sustainability will depend on reliable funding.

Key actions include:

- Integrating CHM activities into national and institutional budgets
- Developing a resource mobilization strategy targeting government, development partners, and private sector
- Leveraging existing programmes and partnerships to support CHM implementation
- Promoting cost-effective approaches, including the use of existing platforms

5.5 Final Reflection

The development of the Kenya National Biodiversity Clearing-House Mechanism is both a necessity and an opportunity. It is an opportunity to bring together the country's rich biodiversity knowledge, make it accessible, and use it to inform better decisions.

Kenya already has the building blocks in place—strong institutions, committed stakeholders, and valuable data. With the right coordination, investment, and focus, the CHM can become a powerful tool for supporting biodiversity conservation, sustainable development, and national reporting.

The next step is to translate these recommendations into action through a clear, practical, and well-supported CHM Strategy and Action Plan for 2026–2030.

CHAPTER SIX: ANNEXES

Annex 1: SWOT Analysis Summary

Strengths

- Established biodiversity monitoring institutions.
- Experience in CBD reporting.
- Strong research capacity.
- Availability of biodiversity datasets.

Weaknesses

- Fragmented data systems.
- Inconsistent metadata standards.
- Weak inter-agency coordination.
- Limited awareness of CHM functions.

Opportunities

- Bioland platform reduces ICT burden.
- Alignment with KMG
- Alignment with KMGBF reporting needs.
- Increased global attention to biodiversity.
- Digital transformation initiatives in government.

Threats

- Funding constraints.
- Staff turnover in institutions.
- Institutional silos.
- Limited enforcement of data-sharing protocols.

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ANNEX 3: List of consulted institutions and participants

The development of the National Biodiversity Clearing-House Mechanism (CHM) Strategy and Action Plan for Kenya involved extensive consultations with key institutions, stakeholders, and experts. These consultations were conducted through multi-stakeholder workshop, meetings, and data collection exercises.

Institution	Representative / Desk Officer	Role in Consultation
National Environment Management Authority (NEMA)	Joseph Masinde, Ag. Principal, Education for Sustainable Development (CHM & ABS-CH Desk Officer Joemasinde@gmail.com	CHM coordination, workshop facilitation
Kenya Wildlife Service (KWS)	Ismene Feksi ifeksi@kws.go.ke	Data provision, biodiversity monitoring insights
Kenya Forest Service (KFS)	Mwang'ombe Mwamodenyi mwangombejames@yahoo.co.uk	Forest biodiversity data, monitoring practices
National Museums of Kenya (NMK)	Veronicah Mutele Ngumbau vngumbau@museums.or.ke	Biodiversity collection management, species inventories
Kenya Fisheries Service (KeFS)	Samuel Kariuki Ombicha ombichasam@gmail.com	Marine and fresh water fish biodiversity monitoring, data collection
State Department for Blue Economy and Fisheries	Peter Kimwele Mwandikwa kimwand@yahoo.com	collection of data on marine and inland fisheries, aquatic species, and ecosystems. monitoring of coastal and marine habitats, including mangroves, coral reefs, and seagrass beds.
Kenya Forest Research Institute (KEFRI)	Norah Koima nkoima@kefri.org.	Forest Research and monitoring data, capacity building inputs
Kenya Agricultural Livestock Research Organisation (KALRO)	Desterio Nyamongo dnyamongo@yahoo.co.uk	Develops and maintains databases on agricultural biodiversity and genetic resources.
Technical University of Kenya (TUK)	Dr. Collins Handa	Conduct applied research on biodiversity, ecosystems, and environmental change.
Ministry of Agriculture, Livestock	Leonida Osoro leonosoro@gmail.com	Data on agro-biodiversity and ecosystem services

Ministry of Environment and Climate Change	Nyokabi Wambugu nyokabiwambugu@gmail.com	Policy alignment, national CHM integration
Directorate of Resource Surveys and Remote Sensing (DRSRS)	Silas Mulehi silas.mulehi@gmail.com	Generation of land use and land cover data through satellite imagery and aerial surveys Datasets on habitat distribution, ecosystem changes, and degradation trends
WWF Kenya	Jonathan Odongo jodongo@wwfkenya.org	Conservation data sharing, CHM usage feedback
Nature Kenya	Paul Gacheru species@naturekenya.org	Bird and habitat monitoring data, local community engagement
IUCN Eastern & Southern Africa	Mungai Catherine Catherine.Mungai@iucn.org	Technical advice on biodiversity monitoring and reporting
Wetlands International Eastern Africa	Louisa Chinyavu LChinyavu@wetlands-eafrica.org	Wetlands monitoring data, community knowledge integration
Indigenous Information Network (IIN)	Lucy Mulenkei mulenkei@gmail.com	Community biodiversity monitoring, traditional knowledge integration
Regional Centre for Mapping of Resources for Development (RCMRD)	Josphut Nguu engineering@rcmrd.org, info@rcmrd.org	Provides high-quality satellite imagery, land cover data, and spatial analysis across Eastern and Southern Africa. Generates datasets on ecosystem distribution, land use change, deforestation, and habitat degradation. Protected area database

ANNEX 4: Survey Questionnaires for National Biodiversity CHM Strategy Development

The development of the National Biodiversity Clearing-House Mechanism (CHM) Strategy and Action Plan for Kenya involved extensive consultations with key institutions, stakeholders, and experts. These questionnaires are designed to collect detailed information from government institutions, research institutions, NGOs, universities, private sector, and community-based organizations contributing biodiversity data in Kenya.

A. Institutional Information

1. Institution Name: _____
2. Department/Unit: _____
3. Name and Position of Respondent: _____
4. Contact Information (Email/Phone): _____
5. Type of Institution:
    - ○

B. Biodiversity Data Management

1. Does your institution collect biodiversity data?
    - ○
2. What types of biodiversity data do you manage? (Tick all that apply)
    - ○
3. How is biodiversity data stored in your institution?
    - ○
4. Are there standardized protocols for data collection and management?
    - ○ If yes, please describe briefly: _____
5. How often is biodiversity data updated?
    - ○
6. Are your datasets shared with other institutions or the national CHM?
    - ○ If yes, through what mechanisms? _____
7. What are the main challenges faced in biodiversity data management? (Tick all that apply)
    - ○

C. Human Resource Capacity

1. How many staff are involved in biodiversity monitoring and data management?
    - ○ Senior staff: ____
    - ○ Technical staff: ____
    - ○ Field staff: ____
2. Have your staff received training in:
    - ○ Biodiversity monitoring? [ ] Yes [ ] No
    - ○ Data management? [ ] Yes [ ] No
    - ○ GIS and remote sensing? [ ] Yes [ ] No
    - ○ CHM portal usage? [ ] Yes [ ] No
    - ○ Other (please specify): _____
3. What are the key capacity gaps in your institution?

D. ICT Infrastructure and Technology

1. Does your institution have ICT infrastructure to manage biodiversity data?
    - ○

2. If yes, please specify:
    - Computers/laptops: ____
    - Servers: ____
    - GIS software: ____
    - Database management system: ____
    - Internet connectivity: [ ] Good [ ] Moderate [ ] Poor
    - Other (please specify): _____
3. What ICT challenges does your institution face in biodiversity data management?

E. Stakeholder Engagement and Collaboration

1. Does your institution collaborate with other agencies or organizations on biodiversity monitoring?
    - If yes, list key partners: _____
2. Are community members, women, and youth involved in your biodiversity monitoring activities?
    -
3. What mechanisms exist for sharing biodiversity information with stakeholders?

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4. How do you use biodiversity information in decision-making and planning?

F. CHM Awareness and Participation

1. Are you aware of Kenya's National Biodiversity CHM and its portal (https://ke.chm-cbd.net/)?
    -
2. Has your institution contributed data to the CHM?
    -
3. What support or capacity building would help your institution participate more effectively in the CHM?

G. Recommendations

1. What are your recommendations for improving biodiversity data management and sharing in Kenya?

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2. What actions should be prioritized in the National CHM Strategy to support your institution?

Instructions for Respondents:

- Please provide as much detail as possible.
- Attach additional documents or spreadsheets if relevant.
- Responses will be used to inform the National CHM Strategy and Action Plan and will be treated as confidential if requested.

ANNEX 5: Institutional Capacity Assessment Matrix for National Biodiversity CHM Strategy

Institution	Human Resource Capacity	Data Management Systems	ICT Infrastructure	Biodiversity Data Coverage	Training Needs	Key Gaps	Recommendations
NEMA	Moderate – 3 staff dedicated to CBD and CHM activities	GIS Data site specific, maps,Centralized EIA database; partial integration with sectorial data systems	Moderate – computers and networking; limited advanced tools CHM management	Terrestrial ecosystems, wetlands, forest resources, ecosystem services, biodiversity economics	GIS, remote sensing, database management, metadata standards	Limited CHM staff, insufficient data integration with global portals	Recruit additional CHM staff, continuous capacity-building, strengthen ICT infrastructure develop long-term CHM sustainability plan, partner with MDAs and research institutions for data sharing
Kenya Wildlife Service (KWS)	Moderate – biodiversity monitoring officers	Species-specific databases; park management systems	Moderate – field data collection devices, desktop GIS	Wildlife species, population trends, protected area data	Wildlife GIS, remote sensing, biodiversity reporting, CHM use	Data fragmented across parks, limited interoperability with national CHM	Integrate park databases with national CHM, train staff on CHM portal and data standards, strengthen field data digitization
Kenya Forest	Moderate – forest	Forest inventory	Moderate – desktop GIS,	Forest cover, species	GIS, remote sensing,	Data often not aligned	Align data collection to

Service (KFS)	monitoring and research staff	databases; satellite monitoring systems	remote sensing software	diversity, restoration ,Tree nurseries, projects, carbon sequestration projects	forest biodiversity assessment, CHM reporting	with GBF indicators, limited integration with other MDAs	GBF indicators, integrate with CHM, enhance interoperability, staff training on metadata standards
National Museums of Kenya (NMK)	Moderate – taxonomists and curators	Specimen databases, ecological records,	Moderate – collection management systems, basic GIS	Museum specimens, taxonomy, ecological surveys, species distribution50, 000 digitized speciments, GBIF database, digitized indigenous knowledge from counties	Digitization, database management , biodiversity informatics	Siloed collections, limited sharing with CHM, slow digitization	Develop interoperable databases, digitize collections, train staff in CHM integration
Kenya Forestry Research Institute (KEFRI)	Moderate – research scientists	Research datasets on forests, genetic resources, agroforestry	Moderate – research labs, GIS, remote sensing	Forest biodiversity, tree genetic resources, forest restoration, climate-forest interactions	CHM integration, data management , research data standardizati on	Data not linked to national CHM, limited staff for knowledge sharing	Integrate research data into CHM, train staff on metadata standards, improve collaboration

							with NEMA and KFS
Kenya Marine and Fisheries Research Institute (KMFRI)	Moderate – marine biodiversity researchers	Marine species databases, fisheries monitoring systems	Moderate – marine sensors, GIS, databases	Marine biodiversity, fisheries, coastal ecosystems	GIS, remote sensing, marine biodiversity monitoring, CHM reporting	Data not aligned with GBF indicators, limited sharing with CHM	Align marine data with GBF indicators, integrate into CHM, train staff on reporting
Kenya Agricultural and Livestock Research Organization (KALRO)	Moderate – research scientists	Crop and livestock biodiversity databases	Moderate – research labs, ICT	Crop genetic resources, livestock breeds, agro-biodiversity	Data management, CHM integration, genetic resource reporting	Limited integration with national CHM, inconsistent metadata standards	Integrate databases into CHM, standardize metadata, capacity building for CHM reporting
Biosafety Authority (NBA)	Limited – regulatory officers	GMO and biosafety databases	Limited – computers and database software	Genetically modified organisms, biosafety risk assessments	CHM reporting, data standardization, risk assessment documentation	Small staff, limited CHM familiarity, data integration challenges	Train staff on CHM portal, integrate biosafety data with CHM, improve digital infrastructure
Technical University of Kenya(TUK)	Varies – academic and research staff	Project-specific biodiversity databases	Moderate – ICT labs, GIS, limited interoperability	Research data on ecosystems, species, habitats	Metadata standards, CHM integration, data sharing	Data siloed, inconsistent formats, limited awareness of CHM	Establish partnerships with CHM, standardize datasets, train researchers on

							CHM portal usage
Ministry of Environment, Climate Change and Forestry (MoECCF)	Moderate – environmental officers	Policy and sectoral databases	Moderate – ICT and reporting tools	National policy, biodiversity planning, environmental indicators	CHM coordination, data integration, reporting	Limited direct operational control of biodiversity data, coordination challenges	Strengthen CHM coordination role, train staff, integrate sectoral data
State Department for the Blue Economy and Fisheries	Moderate – fisheries officers, aquatic ecologists	Fisheries and marine biodiversity databases	Moderate – GIS, mobile data collection apps	Marine ecosystems, fish stocks, coastal biodiversity	CHM integration, GIS, data sharing, GBF indicator reporting	Data fragmented across projects, limited access to national CHM	Standardize fisheries data, integrate into national CHM, provide capacity building on GBF indicators
Water Resources Authority (WRA/WRMA)	Moderate – hydrologists, environmental officers	Hydrology, water quality, and aquatic biodiversity databases	Moderate – GIS, hydrological modeling software	Rivers, lakes, wetlands, aquatic biodiversity	CHM portal use, biodiversity monitoring, GIS	Data mainly water-focused, limited interoperability with CHM	Integrate aquatic biodiversity data into CHM, train staff on CHM and GBF indicator reporting
DRSRS (Directorate of Resource Surveys and Remote	Moderate – GIS and remote sensing specialists	Satellite and aerial imagery, land cover maps	High – GIS servers, remote sensing software	Land use/cover, habitat mapping, ecosystem	CHM data integration, GIS, remote sensing for biodiversity	Data technical, not always linked to CHM or biodiversity	Align remote sensing datasets with national CHM, provide training on

Sensing)				assessments		indicators	biodiversity applications
Wildlife Research and Training Institute (WRTI)	Moderate – wildlife researchers, trainers	Species, protected areas, ecological monitoring databases	Moderate – GIS, telemetry, field data apps	Terrestrial wildlife, protected areas, ecological monitoring	CHM reporting, GIS, data management	Data fragmented across projects, weak coordination with national CHM	Centralize wildlife data in CHM, provide training on metadata standards and GBF indicator reporting
Community Conservancies	Limited – conservation officers	Project and field data	Limited – basic ICT tools, field devices	Community-managed areas, species monitoring, ecosystem services	Data collection, CHM reporting, GIS	Data scattered, low interoperability, low awareness of CHM	Capacity building on CHM, standardize data, integrate community data into CHM
WWF Kenya	Moderate – biodiversity and conservation officers	Project-based biodiversity databases	Moderate – GIS, GPS devices, field data collection apps	Ecosystems, flagship species, wetlands, forests, community-managed areas	GIS, remote sensing, CHM reporting, metadata standards	Data fragmented across projects, limited integration with national CHM	Standardize project data, integrate with national CHM, provide training on metadata and reporting, strengthen partnerships with NEMA and other MDAs
IUCN Kenya	Moderate – conservation	IUCN Red List databases, species and	Moderate – GIS, database	Species assessments, protected	CHM integration, reporting to	Data not fully linked to Kenya's	Align data with national CHM, provide

	specialists	ecosystem assessments	systems	areas, ecosystem services, conservation status reports	CBD, GIS and data analysis	CHM, limited interoperability with national platforms	technical support for CHM reporting, train staff on GBF indicators and national monitoring
Nature Kenya	Moderate – research and conservation staff	Bird and biodiversity monitoring databases, citizen science platforms	Moderate – GIS, mobile data collection	Birds, key biodiversity areas (KBAs), species monitoring, ecosystem services	CHM portal use, GIS, biodiversity reporting, data sharing	Data limited to specific taxa, partial integration with national CHM	Integrate KBA and bird monitoring data into CHM, standardize data formats, train staff on metadata standards and GBF indicator reporting

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