

AUDITOR-GENERAL'S AUDIT REPORT
ON THE HUMAN RESOURCE
INFORMATION SYSTEM-KENYA

APRIL 2025



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FOREWORD BY THE AUDITOR-GENERAL

I am pleased to present this Special Audit Report on the Human Resource Information System-Kenya (HRIS-Ke). Article 229 of the Constitution of Kenya, 2010 mandates the Auditor-General to undertake financial, compliance and performance audits. Further, Section 7(1)(a) of the Public Audit Act, 2015 requires the Auditor-General to give assurance on the effectiveness of internal controls, risk management and overall governance at national and county governments. The Special Audit of the Human Resource Information System-Kenya was conducted in line with this mandate.

The Human Resource Information System-Kenya is a web-based system intended to consolidate public service human resource processes. The need to develop the system was occasioned by human resource data in the Public Service being fragmented and inconsistent, limiting the Government's ability to make sound decisions on wage bill management, human resource management, budgeting and planning, thereby undermining efficiency and accountability in service delivery. The Human Resource Information System-Kenya is an improvement from the Integrated Personnel and Payroll Database (IPPD) System.

The special audit identified weaknesses in the implementation of the Human Resource Information System-Kenya, and provides recommendations to the State Department for Public Service and Human Capital Development, for improved management of human resource in the Public Service.

The report is submitted to Parliament in accordance with Article 229 (7) of the Constitution of Kenya, 2010 and Section 39 (1) of the Public Audit Act, 2015. I have remitted copies of the report to the Chief of Staff and Head of the Public Service, the Principal Secretary, The National Treasury, and the Principal Secretary, State Department for Public Service and Human Capital Development.

The Annexures contain personal data and have been provided in soft copy.


FCPA Nancy Gathungu, CBS

AUDITOR-GENERAL

25 April, 2025


 THE NATIONAL ASSEMBLY PAPERS LAID	
DATE: 14 JUN 2025	
DAY: Thursday	
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LIST OF ABBREVIATIONS

CBA	Collective Bargaining Agreement
DPM	Directorate of Personnel Management
DRP	Disaster Recovery Plan
GESDEK	Governance for Enabling Service Delivery and Public Investment in Kenya
GHRIS	Government Human Resource Management Information System
HRIS-Ke	Human Resource Information System-Kenya
ICT	Information and Communication Technology
IFMIS	Integrated Financial Management Information System
IPPD	Integrated Personnel and Payroll Database
IT	Information Technology
MDAs	Ministries, Departments and Agencies
NDA	Non-Disclosure Agreements
NSSF	National Social Security Fund
OLA	Operational Level Agreements
PAYE	Pay as You Earn
PFMR	Public Financial Management Reforms
PSC	Public Service Commission
SCs	State Corporations
SHA	Social Health Authority
SLA	Service Level Agreements
SPAS	Staff Performance Appraisal System
SRC	Salaries and Remuneration Commission
UHR	Unified Human Resource
UPN	Unified Payroll Number

1. EXECUTIVE SUMMARY

Introduction and Background

- 1.1. Article 229 of the Constitution of Kenya, 2010 mandates the Auditor-General to undertake financial, compliance and performance audits. Further, Section 7(1)(a) of the Public Audit Act, 2015 requires the Auditor-General to give an assurance on the effectiveness of internal controls, risk management and overall governance at national and county governments. In addition, Section 34 of the Public Audit Act, 2015 mandates the Auditor-General to conduct periodic audits, upon request or at the Auditor-General's own initiative, with a view to evaluating the effectiveness of risk management, control and governance processes in public entities. The special audit on the Human Resource Information System-Kenya (HRIS-Ke) was conducted in line with this mandate.
- 1.2. Prior to 1996, payroll processes in the public sector were manual. In order to enhance efficiency and effectiveness in payroll management, the Government established a taskforce to develop an Integrated Personnel and Payroll Database (IPPD) system in 1996. The system was launched in 2004, in a phased approach, to manage both complement and payroll components. However, the Integrated Personnel and Payroll Database system did not address all human resource related areas.
- 1.3. In this regard, the then ministry responsible for public service in 2011 embarked on the design and development of a system, with the aim of addressing the gaps identified in the IPPD system. This led to the development of the Human Resource Information System-Kenya (HRIS-Ke), a web-based system that consolidates public service human resource and payroll processes.
- 1.4. The system was envisaged to have several modules, including Payroll, Employee Management, Leave, Pension, Training, Recruitment, Establishment and Performance. The Payroll Module was developed as a priority module, and in December 2024, the Module was implemented in Ministries, Departments and Agencies and County Governments.

Audit Objectives

- 1.5. The objectives of the special audit were:
- i. To assess the adequacy and effectiveness of the Human Resource Information System-Kenya (HRIS-Ke), Information Technology and other related controls;
 - ii. To assess the controls put in place in the development of HRIS-Ke;
 - iii. To determine the adequacy and completeness of migration from the Integrated Payroll and Personnel Database (IPPD) system to HRIS-Ke in the Ministries, Departments and Agencies included in the Pilot Phase;
 - iv. To assess the status of implementation of HRIS-Ke; and
 - v. To determine whether HRIS-Ke is working efficiently and effectively in the Ministries, Departments and Agencies included in the Pilot Phase.

Audit Scope

- 1.6. The special audit entailed the review of the implementation of HRIS-Ke as at January 2025. The November 2024 data from the previous system, the Integrated Personnel and Payroll Database, and the December 2024 and January 2025 data from HRIS-Ke were used to test the adequacy and completeness of migration from IPPD to HRIS-Ke. The data was also used to determine whether HRIS-Ke was working efficiently and effectively in counties. In addition, the June 2024 IPPD data and July 2024 HRIS-Ke data were used to confirm the adequacy of controls and completeness in migration, efficiency and effectiveness in the operation of HRIS-Ke in the MDAs included in the Pilot Phase.

Methods of Data Collection

- 1.7. The special audit involved the review of processes and documents at the Ministry of Public Service and Human Capital Development, and in the sampled County Governments. In addition, the special audit entailed the analysis of data maintained by IPPD and HRIS-Ke. Further, audit evidence was gathered through walk through tests and document review. Data validation was conducted in order to test the integrity of the data used in the special audit.

Summary of Audit Findings

1.8. The key audit findings are as detailed below: -

A. Governance and Management of Information Technology

I. Inadequate Governance and Strategic Planning for Information and Communication Technology

1.9. The Ministry of Public Service and Human Capital Development, referred to as the Ministry in this report, had developed an overall strategic plan but lacked a comprehensive Information and Communication Technology (ICT) strategy. Additionally, there was no dedicated budget allocation for the HRIS-Ke Project, thereby increasing the risk of underfunding, delayed deployments, and incomplete functionalities. These gaps collectively undermined the alignment of ICT initiatives with organizational goals and hampered the Ministry's ability to ensure sustainable and secure IT operations.

II. Lack of Key Information and Communication Technology Policies, Procedures, and Agreements

1.10. The audit established that the Ministry had not developed key ICT governance documents, including policies on information security, change management, incident and problem management, and ICT risk management. The absence of these policies weakens accountability, exposes the system to operational risks, and limits the Ministry's ability to enforce controls over data, access, and system changes. Furthermore, the lack of documented Internal Service Level Agreements and Operational Level Agreements with MDAs and County Governments limits the ability to define, track, and improve ICT service delivery, which may lead to inconsistent support and accountability issues.

B. Development of the Human Resource Information System-Kenya

I. Inadequate Governance and Oversight in System Development

1.11. The special audit identified weaknesses in the governance structures overseeing the development and implementation of HRIS-Ke. The Project Steering Committee lacked proper documentation, including project status reports, minutes, and resolutions, thereby limiting transparency and accountability. Additionally, the HRIS-Ke pilot phase was restricted to a few state departments, excluding Counties, which resulted in gaps during data migration. The lack of

effective oversight and non-representation of counties in the Pilot Phase poses risks of misaligned implementation, poor decision-making, and ineffective project delivery.

II. Inadequate Contractual, Legal, and Quality Assurance Frameworks

- 1.12. System developers of HRIS-Ke from various MDAs were engaged without formal agreements or non-disclosure arrangements. In addition, there were no software license provisions in place to protect the system's intellectual property. This exposed the system to vulnerabilities, in terms of unauthorized access, reverse engineering, and potential data breaches. Moreover, the absence of dedicated quality assurance personnel to test and control system changes before deployment undermines the system's integrity and reliability, presenting risks of errors, security gaps, and uncontrolled modifications.

C. Migration to the Human Resource Information System

- 1.13. The audit revealed inconsistencies and gaps in the migration of employee data from the IPPD system to HRIS-Ke. These included instances where employees existed in one system but were missing in the other, discrepancies in job groups, unjustified changes in job groups and designations, and cases where employees were not migrated to HRIS-Ke. This indicates weaknesses in the data reconciliation and validation processes during migration, which could lead to inaccurate payroll processing, unauthorized changes to employee records, and potential financial losses or disputes.

D. Implementation of the Human Resource Information System-Kenya

- 1.14. As at December 2024, the Staff Establishment Module had not been implemented in HRIS-Ke. The implementation of the Module was a requirement under the Second Program for Strengthening Governance for Enabling Service Delivery and Public Investment in Kenya (GESDEK II). Further, even though the Payroll Module was implemented and was operational in MDAs and County Governments, key integration features for payment settlements, payroll data consolidation and employee data validation were not implemented. This exposes the system to risk of data inconsistencies, manual processing, and operational delays.

1.15. The Management response to the audit findings, dated 24 April, 2025 indicated that the Staff Establishment Module had been developed but was yet to be implemented.

E. Functionalities of the Human Resource Information System-Kenya

I. Inadequate System Configuration and Controls

1.16. The special audit identified significant deficiencies in the configuration of the HRIS-Ke, including lack of audit trail functionalities and failure to enforce the mandatory retirement age. In addition, the system did not accommodate certain designations from County Governments, creating inconsistencies and potential exclusion of legitimate personnel. These weaknesses expose the system to unauthorized access, hinder traceability, and risk non-compliance with staffing frameworks.

II. Non-Compliance with Pension and Social Security Requirements

1.17. The Human Resource Information System-Kenya did not capture voluntary social security and pension contributions. These omissions may result in employee benefit discrepancies, potential legal non-compliance, and future financial exposure in MDAs and County Governments.

III. Inefficiencies in Payroll Processing and Reporting

1.18. The Human Resource Information System-Kenya lacked essential features needed for accurate and efficient payroll administration. Key weaknesses included, manual calculation of arrears, lumping of arrears with other allowances, and the inability to generate net pay reports for specific departments or duty stations. In addition, the Payroll Module did not support pre-payroll audits or generate the previous month's payroll reports, thereby impairing transparency, auditability, and operational effectiveness.

IV. Failure to Enforce the Salaries and Remuneration Commission Circulars and Collective Bargaining Agreements

1.19. The Payroll Module was not configured to enforce salary structures and guidelines issued by the Salaries and Remuneration Commission and other relevant Collective Bargaining Agreements. This resulted in overpayments, underpayments, and irregular compensation, thereby exposing MDAs and

County Governments to potential legal liabilities, loss of public funds, and reputational damage arising from non-compliance with the established remuneration frameworks.

Conclusion

- 1.20. The special audit established that the Human Resource Information System-Kenya lacks a structured governance and strategic framework. In particular, the Ministry's management had not developed an ICT strategy, adequate budgeting mechanisms, and formalized Service Level Agreements (SLAs). This gap undermines effective system management, accountability, and alignment with the Ministry's overall strategic objectives.
- 1.21. There were significant deficiencies in the development of HRIS-Ke, including, the absence of, formal agreements with system developers and dedicated quality assurance function. These deficiencies increase the risk of security breaches, intellectual property misuse, and unauthorized system changes.
- 1.22. The failure to implement critical modules, such as the Staff Establishment Module, and the lack of integration with other critical systems, limit the system's ability to support comprehensive human resource management. These gaps undermine data accuracy, necessitate manual interventions, and restrict real-time access to essential workforce information across departments, thereby impairing efficient decision-making.
- 1.23. The audit established that the Human Resource Information System-Kenya had significant control and functionality weaknesses, including: absence of an audit trail to monitor user activities; non-configuration of designations within the system; and lack of system-enforced retirement policies. These issues compromise data integrity, access security, and compliance with regulatory requirements. Additionally, operational shortcomings such as, manual computation of salary arrears, lumpsum payments, limited reporting capabilities, and inability to perform pre-payroll audits hinder transparency, accuracy, and efficiency in payroll processing and oversight.
- 1.24. The Payroll Module was not configured to automatically enforce circulars issued by the Salaries and Remuneration Commission and relevant Collective

Bargaining Agreements . This deficiency led to inconsistent application of the approved remuneration guidelines. Consequently, there were instances of overpayments, underpayments, and irregular payments, thereby exposing the Government to financial loss, compliance risks, and potential disputes with employees.

1.25. The migration process, from the Integrated Personnel and Payroll Database to HRIS-Ke did not have adequate governance structures. There was weak stakeholder involvement in the migration process. In addition, the roles and oversight responsibilities were not clearly defined, which could negatively affect the efficiency and completeness of the data migration process.

Recommendations

1.26. In view of the findings and conclusions of the special audit, the following is recommended to the State Department for Public Service and Human Capital Development.

1.27. For effective governance, management and operations of the Human Resource Information System-Kenya, the Management should: -

- i. Develop, adopt, and implement a comprehensive ICT strategy, which should be aligned with the State Department's overall strategy and objectives. Further, the Management should develop and implement policies that ensure a structured approach to managing IT resources, in order to enhance confidentiality, integrity and availability of information systems.
- ii. Ensure the allocation of adequate and comprehensive ICT budget for the entire HRIS-Ke Project lifecycle.
- iii. Establish internal ICT Service Level Agreements and Operational Level Agreements. This will enable the Management to define service expectations, roles, and performance standards, thereby ensuring accountability and efficient service delivery to all MDAs and County Governments that are using HRIS-Ke.

1.28. To safeguard system security and intellectual property, all developers of HRIS-Ke should sign formal agreements, including Non-Disclosure Agreements and software license agreements that prohibit unauthorized modifications or reverse

engineering. Additionally, a dedicated quality assurance team should be established in order to ensure that all system changes are authorized, thoroughly tested, and deployed in a controlled manner. This will minimize vulnerabilities to the Human Resource Information System-Kenya.

1.29. To ensure timely implementation of HRIS-Ke, the Management should establish clear milestones, enhance resource allocation, strengthen monitoring and evaluation mechanisms, and ensure proactive stakeholder engagement. In addition, the Management should prioritize the implementation of the Staff Establishment Module and integration of HRIS-Ke with other systems dealing with payment settlements, payroll data consolidation and employee data validation.

1.30. For effective functioning of the Human Resource Information System – Kenya, the Management should: -

- i. Upgrade HRIS-Ke to enable detailed audit trails, and enforce system automated prompts upon employees reaching retirement age. The system should also be enhanced to automate arrears computation, separate different payment components, and provide comprehensive reporting functionalities, such as net pay by duty station and the previous month's payroll reports. This will facilitate effective payroll management, monitoring, and enhance decision-making on human resource matters.
- ii. Ensure that all staff designations, as per the approved establishment, are fully configured in KHIS-Ke. This will promote data accuracy, enhance payroll integrity, and support effective personnel management.
- iii. Ensure HRIS-Ke is appropriately configured to automatically enforce salary structures, allowances, and related provisions, as stipulated in the Salaries and Remuneration Commission circulars, Collective Bargaining Agreements, and other relevant directives. Regular updates and system validations should also be implemented in order to ensure compliance, enhance payroll accuracy, and prevent irregular financial transactions.

1.31. To ensure efficiency in the migration process, from the Integrated Personnel and Payroll Database to HRIS-Ke, the Management should ensure that the Project Steering Committee is strengthened by incorporating the relevant stakeholders, including representatives of County Governments. In addition, the Committee

should have clear roles, responsibilities, and decision-making authority in order to provide efficient strategic oversight and effective governance

2. INTRODUCTION AND BACKGROUND

Introduction

- 2.1. Article 229 of the Constitution of Kenya, 2010 mandates the Auditor-General to undertake financial, compliance and performance audits. Further, Section 7(1)(a) of the Public Audit Act, 2015 requires the Auditor-General to give an assurance on the effectiveness of internal controls, risk management and overall governance at national and county governments. In addition, Section 34 of the Public Audit Act, 2015 mandates the Auditor-General to conduct periodic audits upon request or at the Auditor-General's own initiative, with a view to evaluating the effectiveness of risk management, control and governance processes in public entities. The special audit of the Human Resource Information System-Kenya (HRIS-Ke) was conducted in line with this mandate.

Background

- 2.2. Prior to 1996, the payroll processes were manual. In order to enhance efficiency and effectiveness in payroll management, the Government, in 1996, established a taskforce under the then Directorate of Personnel Management to develop and implement an Integrated Personnel and Payroll Database (IPPD) system. The system was launched in 2004 in a phased approach, to manage both complement and payroll components.
- 2.3. The introduction of the Integrated Personnel and Payroll Database (IPPD) led to notable improvements in payroll management, including a reduction in the duplication of personnel records. However, due to technological limitations at the time of its development, IPPD did not comprehensively address all human resource related functions. To bridge these gaps, the then Ministry responsible for the Public Service initiated the design and development of the Government Human Resource Information System (GHRIS) in 2011. GHRIS was intended to meet the broader human resource needs of the Government, and to interface seamlessly with the existing systems, such as the Integrated Financial Management Information System (IFMIS) and IPPD.
- 2.4. The Human Resource Information System supported various human resource management processes, including the management of the Unified Payroll

Number (UPN) and the Staff Performance Appraisal System (SPAS), while the IPPD system continued to handle payroll processing. However, the existence of multiple independent human resource information systems across various public service organizations, most of which were not integrated with either IPPD or GHRIS, resulted in fragmented and inconsistent human resource data across the Public Service. This fragmentation limited the Government's ability to make informed decisions regarding wage bill management, human resource management, budgeting, and planning, thereby undermining efficiency and accountability in service delivery.

- 2.5. To address these challenges, the then State Department for Public Service initiated the development of a web-based Human Resource Information System-Kenya (HRIS-Ke). This new system was intended to consolidate human resource and payroll processes across the Public Service, and serve as a centralized data warehouse, providing a single, authoritative source of information.
- 2.6. The Human Resource Information System-Kenya (HRIS-Ke) was envisioned to comprise several modules, including Payroll, Employee Management, Leave Management, Pension Administration, Training Management, Recruitment, Establishment Control, and Performance Management.
- 2.7. The Payroll Module was developed as a priority module, and in December 2024, the Module was implemented in Ministries, Departments and Agencies and County Governments.
- 2.8. The Pilot Phase for the Human Resource Information System-Kenya was conducted for a period of four (4) months, between July October 2024. Four (4) MDAs were sampled for the Pilot Phase; the State Department for Public Service and Human Capital Development, the State Department for Performance and Delivery Management, the Huduma Kenya Secretariat, and the Public Financial Management Reforms (PFMR) Secretariat. Upon conclusion of the Pilot Phase, a parallel run was conducted across all MDAs and County Governments in November 2024. This was to ensure system readiness, leading to the full adoption of the system in December 2024.

Audit Objectives

2.9. The objectives of the audit were:

- i. To assess the adequacy and effectiveness of the Human Resource Information System – Kenya (HRIS-Ke), Information Technology and other related controls;
- ii. To assess the controls put in place in the development of HRIS-Ke;
- iii. To determine the adequacy and completeness of migration from the Integrated Payroll and Personnel Database (IPPD) system to HRIS-Ke in the Ministries, Departments and Agencies included in the Pilot Phase;
- iv. To assess the status of implementation of HRIS-Ke; and
- v. To determine whether HRIS-Ke is working efficiently and effectively in the Ministries, Departments and Agencies included in the Pilot Phase.

Audit Scope

2.10. The special audit entailed the review of the implementation of HRIS-Ke as at January 2025. The November 2024 data from the previous system, the Integrated Personnel and Payroll Database, and the December 2024 and January 2025 data from HRIS-Ke were used to test the adequacy and completeness of migration from IPPD to HRIS-Ke. The data was also used to determine whether HRIS-Ke was working efficiently and effectively in counties. In addition, the June 2024 IPPD data and July 2024 HRIS-Ke data were used to confirm the adequacy of controls and completeness in migration, efficiency and effectiveness in the operation of HRIS-Ke in the piloted MDAs.

Methods of Data Collection

2.11. The special audit involved the review of processes and documents at the Ministry of Public Service and Human Capital Development, and in the sampled County Governments. In addition, the special audit entailed the analysis of data maintained by IPPD and HRIS-Ke. Further, audit evidence was gathered through walk through tests and document review. Data validation was conducted in order to test the integrity of the data used in the special audit.

Document Review

2.12. The following documents were reviewed in order to gather audit evidence:

- i. Payroll Module Solution Design Document, December 2023;
- ii. Program Appraisal Document on Proposed Credit, November 2023;
- iii. Supply, delivery, installation, and commissioning of GHRIS upgraded infrastructure Project Progress Reports;
- iv. Architecture Design Document by Konvergenz Network Solutions;
- v. National Information, Communications and Technology (ICT) Policy, November 2019;
- vi. Ministry of Public Service and Human Capital Development Payroll Management Policy for the Public Service, September 2024;
- vii. Report on the Assessment of the Human Resource Information Systems (IPPD, GHRIS, And UHR), September 2023;
- viii. Updated Roadmap
- ix. Re-Engineering of the Payroll Module in the Human Resource Information, March 2024;
- x. System (HRIS-Ke) Progress Report - PHASE IV, March 2024; and
- xi. Combined Report on the Training of End-Users on the Payroll Module of the HRIS-Ke System, October 2024.

Data Analysis

2.13. Data from both IPPD and HRIS-Ke was extracted and analyzed, and exceptions identified. The data analysis exceptions formed the basis of verification in MDAs and County Governments.

2.14. The data sets analyzed included the staff registers and payrolls for HRIS-Ke and the IPPD System for the four (4) MDAs in the Pilot Phase and County Executives.

Data Verification

2.15. The preliminary audit findings were verified with data maintained at the sampled MDAs and County Governments.

Report Structure

2.16. This report is organized as follows:

- i. Executive Summary;
- ii. Detailed Findings;
- iii. Conclusion;
- iv. Recommendations; and
- v. Listing of Annexures.

2.17. The report should be read in its entirety in order to comprehend fully the approach and findings of our work. The annexures referenced in the report will be provided in soft copy. The report has covered analysis and facts as understood, with the aim of informing the Ministry of the risks identified, governance, management and operation of HRIS-Ke. Further, recommendations on mitigation measures have been provided.

3. DETAILED FINDINGS

3.1. The detailed findings are in the ensuing paragraphs and have been categorized into the following five (5) broad areas:

- i. Governance and management of Information Technology;
- ii. Development of the Human Resource Information System-Kenya;
- iii. Migration to the Human Resource Information System – Kenya;
- iv. Implementation of the Human Resource Information System-Kenya; and
- v. Functionalities of the Human Resource Information System-Kenya.

A. Governance and Management of Information Technology

3.2. Regulation 23 (1) (c) of the Public Finance Management (National Government) Regulations, 2015 requires accounting officers to be accountable to the National Assembly for maintaining effective systems of internal control and the measures taken to ensure that they are effective.

3.3. Governance is critical for aligning digital initiatives with broader government policies, regulatory frameworks and ensuring that the initiatives meet strategic goals and deliver public value. Review of governance and management structures of HRIS-Ke revealed the following weaknesses: -

I. Inadequate Strategic Planning for Information and Communication Technology

3.4. The Ministry of Public Service and Human Capital Development, referred to as the Ministry in this report, had developed an overall strategic plan. However, the plan did not include a comprehensive Information Communication and Technology (ICT) strategy. The absence of the ICT strategy is an indication that the Ministry did not have a structured approach to managing critical aspects of ICT, including IT investments, operational budgeting, funding sources, sourcing and acquisition strategies, training programs, maintenance schedules, and compliance with legal and regulatory requirements. This gap could hinder the Ministry's ability to align its ICT initiatives, including development of HRIS-Ke with organizational goals and ensuring sustainable, well-coordinated IT operations.

II. Lack of a Budget for Information and Communication Technology

- 3.5. Regulation 33(f) of the Public Finance Management (National Government) Regulations, 2015 requires that budget estimates consider expenditure priorities that contribute to the realization of the required output and desired policy outcome.
- 3.6. The audit established that there was no dedicated budget allocation for essential ICT components required for the HRIS-Ke Project. This lack of allocation of resources raises concerns about the Ministry's ability to effectively support the development of HRIS-Ke. Without a sufficient ICT budget, there is a risk that critical aspects of the HRIS-Ke implementation may be underfunded, leading to delayed deployments, incomplete system functionalities, and potential system failures.

III. Lack of Key Information and Communication Technology Policies and Procedures

- 3.7. The audit established that the Ministry had not developed key ICT policies and procedures to manage the ICT operations, including:-

a) Information Technology Security Policy

- 3.8. An IT security policy is essential for establishing clear guidelines on data protection, access control, cybersecurity measures, and incident response, ensuring the confidentiality, integrity, and availability of information systems. The policy also enables organizations to comply with regulatory requirements, mitigate security risks, and enforce accountability in managing IT resources effectively.

b) Incident and Problem Management Policy

- 3.9. An incident and problem management policy is crucial for ensuring a structured and efficient approach to identifying, resolving, and preventing IT incidents and recurring issues, minimizing downtime and service disruptions. The policy enhances system reliability, system availability, improves user experience, and ensures compliance with best practices by defining clear roles, responsibilities, and escalation procedures for handling incidents and problems.

c) Change Management Policies and Procedures

3.10. A change management policy establishes controls for making changes to systems, ensuring proper testing, approval, and documentation to prevent service disruptions. Specifically, there were no established mechanisms for:

- i. Completing and documenting change management requests;
- ii. Reviewing, approving, and authorizing changes;
- iii. Testing and validating changes before deployment;
- iv. Implementing approved changes in a controlled manner;
- v. Periodically reporting on changes; and
- vi. Conducting post-implementation reviews to evaluate the impact and success of changes.

3.11. The lack of these structured processes hinders the ability to track and document modifications, understand the rationale behind changes, and identify the individuals responsible. This absence of controls also compromises accountability, increases the risk of unauthorized or poorly executed changes, and complicates troubleshooting and audit activities. Additionally, it exposes the HRIS-Ke to potential operational disruptions.

d) Information and Communication Technology Risk Management Policy

3.12. The policy provides a structured approach to identifying, assessing, and mitigating ICT-related risks that could impact system availability and security.

IV. Lack of Service Level Agreements with Ministries, Departments and Agencies and County Governments

3.13. The audit established that the Ministry lacked documented internal ICT Service Level Agreements (SLAs) and Operational Level Agreements (OLA) with MDAs and County Governments. The absence of these agreements limits the ability to define, measure, and evaluate the effectiveness of ICT support services. This leads to potential inefficiencies in incident resolution, unclear responsibilities, and inconsistent service expectations. In addition, the gap increases the risk of delayed system support, unresolved technical issues, and poor communication between the Ministry and users. Furthermore, without formal agreements, there is no structured mechanism to track ICT service performance, prioritize critical system issues, or ensure accountability in service delivery.

3.14. The absence of documented Service Level Agreements and Operational Level Agreements increases the risk of inefficient ICT service delivery, delayed incident resolution, and lack of accountability, which can disrupt critical operations across MDAs and County Governments. Additionally, without defined service expectations and performance metrics, HRIS-Ke users may experience inconsistent support, leading to frustration, reduced productivity, and potential system downtime.

B. Development of the Human Resource Information System-Kenya

3.15. Regulation 23 (1) (c) of the Public Finance Management (National Government) Regulations, 2015 requires accounting officers to be accountable to the National Assembly for maintaining effective systems of internal control and the measures taken to ensure that they are effective.

3.16. Review of HRIS-Kenya development process established the following weaknesses: -

I. Absence of Formal Agreements with System Developers

3.17. System developers of HRIS-Ke were drawn from various MDAs. However, the developers had not signed Service Level Agreements which ordinarily would contain formal Non-Disclosure Agreements (NDAs), and conditions for access to proprietary source code and development tools. Further, there were no software license agreements prohibiting the developers from reverse engineering the system, to ensure that there was no compromise on trade secrets or programming techniques.

II. Lack of Quality Assurance and Controlled Change Management

3.18. The system development lacked a dedicated quality assurance function, in order to ensure that system changes were properly authorized, tested, and implemented in a controlled manner. This gap increases the risk of unauthorized changes, system instability, and operational failures. In the absence of structured quality assurance processes, the reliability and security of the system is compromised.

III. Inadequate Governance and Oversight in System Development

3.19. Regulation 23(1),(c) of the Public Finance Management (National Government) Regulations, 2015 states that an accounting officer is accountable to the National

Assembly for maintaining effective systems of internal control and the measures taken to ensure that they are effective.

3.20. Review of the HRIS-Ke development process revealed that the Ministry had an interagency Project Steering Committee to oversee the implementation of HRIS-Ke. However, the following weaknesses were noted: -

a) Lack of Project Status Reports, Minutes and Resolutions

3.21. The Management did not provide reports or committee minutes detailing how the project was being monitored and evaluated. In addition, the actions taken to ensure the project's success were not outlined. Additionally, there were no status reports submitted to the oversight committee, nor were there resolutions addressing project challenges.

b) Failure to Include County Governments in the Pilot Phase

3.22. The Pilot Phase was conducted in four (4) MDAs, excluding county governments. The failure to include County Governments in the Pilot Phase presented gaps during the data migration process, as most considerations were tailored to the needs of the National Government. Conducting a pilot in County Governments would have ensured the identification and timely rectification of challenges related to data migration. This includes issues such as overpayments, underpayments, and irregular payments.

C. Migration to the Human Resource Information System - Kenya

3.23. Successful migration from legacy systems to new systems requires thorough planning, data validation, and testing to maintain accuracy, security, and system integrity. The implementation of proper controls and user training also ensures a smooth transition, reducing risks and enhancing user acceptance.

3.24. Review of the migration process from IPPD to HRIS-Ke revealed the following weaknesses: -

I. Data Integrity Issues Arising from System Migration in the Pilot Phase

3.25. In July 2024, four (4) MDAs, namely; the Public Service and Human Capital Development, State Department for Performance and Delivery Management, Huduma Kenya Secretariat, and PFMR Secretariat adopted the Human Resource Information System-Kenya (HRIS-Ke). A comparison between the June 2024

IPPD payroll data and July 2024 HRIS-Ke payroll data was conducted in order to determine the accuracy and completeness of the migration. The comparison of the two (2) datasets identified the following discrepancies :-

- a) **Employees in the HRIS-Ke Payroll not in IPPD Payroll-** There were forty-seven (47) employees in HRIS-Ke payroll who were not in the IPPD payroll, as detailed in **Annexure 1**.
- b) **Employees in the IPPD Payroll not in the HRIS-Ke Payroll-** There were eighteen (18) employees in the IPPD payroll who were not migrated into the HRIS-Ke, as detailed in **Annexure 2**.
- c) **Employees in the HRIS-Ke Staff Registers and IPPD Staff Registers -** There were twelve (12) employees captured in the July 2024 HRIS-Ke staff register who were not in the June 2024 IPPD system, as detailed in **Annexure 3**.
- d) **Employees in the IPPD Staff Register not in the HRIS-Ke Staff Register -** There were forty-nine (49) employees in the IPPD staff register for the month of June 2024 who were not migrated to the July 2024 HRIS-Ke payroll, as detailed in **Annexure 4**.
- e) **Job Group Discrepancies Between HRIS-Ke and IPPD -** Comparison of data maintained in IPPD system and HRIS-Ke revealed that nine (9) employees had mismatched job groups, as detailed in **Annexure 5**.
- f) **Inconsistencies in Engagement, Detachment, and Special Needs Codes between IPPD and HRIS-Ke -** Comparison of data maintained in HRIS-Ke and the IPPD system revealed that there were employees whose engagement codes, detachment codes and disability status were inconsistent in the two (2) systems. The inconsistencies are detailed in **Annexure 6, Annexure 7 and Annexure 8**.

3.26. The weakness indicates poor data validation and inadequate controls during migration increasing the risk of payroll fraud, payroll errors and financial losses.

II. Data Integrity Issues Arising from System Migration in County Governments

3.27. County governments adopted the Human Resource Information System (HRIS-Ke) with effect from December 2024. Comparison between the November 2024

IPPD data and December 2024 HRIS-Ke data for sampled counties revealed the following discrepancies: -

- a) **Unjustified Change in Job Group on Migration** - There were fifty-six (56) employees, whose job groups were changed after the migration process from IPPD. These employees had neither been promoted nor given new appointments during the migration period. The details are provided in **Annexure 9**.
- b) **Change of Designation on Migration** - There were cases of employees whose designations had been changed during the migration process, as shown **Annexure 10**.

3.28. Incorrect changes in designation during migration may lead to payroll errors, misaligned benefits, or improper access to system functionalities.

D. Implementation of the Human Resource Information System-Kenya

3.29. According to the Second Program for Strengthening Governance for Enabling Service Delivery and Public Investment in Kenya (GESDEK-II) Program, by the end of December 2024, it was expected that forty percent (40%) of MDAs should be generating their payroll through the HRIS-Ke.

3.30. Additionally, within the same period, the GESDEK-II Program aimed to ensure that the Ministry had rolled out the Staff Establishment Module and uploaded organizational and benefit structures for twenty-five percent (25%) of selected state corporations, selected constitutional commissions, and the two (2) Independent Offices into the HRIS-Ke .

I. Lack of Implementation of the Staff Establishment Module

3.31. Regulation 23(1c) of the Public Finance Management (National Government) Regulations, 2015 states that an accounting officer is accountable to the National Assembly for maintaining effective internal control systems and the measures taken to ensure that they are effective.

3.32. Review of HRIS-Ke established that the Staff Establishment Module had not been implemented as per the required timeline of December 2024. This exposes the system to risk of data inconsistencies, manual processing, and operational delays, leading to compromised data quality and service delivery.

3.33. The Management, while responding to the management letter, confirmed that the Module was later developed but was yet to be implemented.

II. The Human Resource Information System-Kenya was not Integrated with Other Systems

3.34. Regulation 23(1),(c) of the Public Finance Management (National Government) Regulations, 2015 states that an accounting officer is accountable to the National Assembly for maintaining effective internal control systems and the measures taken to ensure that they are effective.

3.35. The audit revealed that HRIS-Ke had not been integrated with other critical external systems necessary for ensuring seamless operations and compliance with the Integration Architect Principles on inter-operability. The principles state that the design of Integrated Human Resource Information Systems implements integration in three areas: (i) to handle payroll payment settlements, (ii) payroll data consolidation from other government entities; and (iii) data validation from other government entities, such as the Integrated Population Registration System (IPRS) and the Ministry of Education. These configurations were to be implemented as follows: -

a) Payment Settlements

3.36. The design of the Payroll Module in the Human Resource Information System-Kenya was to be integrated with various beneficiaries, such as the Kenya Revenue Authority (KRA) and Savings and Credit Cooperative Societies (SACCOs), for employee deductions. In addition, the system was to be integrated with the Integrated Financial Management System (IFMIS) for beneficiary settlements. To support this, the database was to store critical integration details like KRA Personal Identification Numbers (PINs) and IFMIS numbers.

b) Payroll Data Consolidation

3.37. The Human Resource Information System-Kenya incorporates a data warehouse to centralize payroll information for reporting needs.

c) Employee Data Validation

3.38. To ensure data integrity, the design of the HRIS-Ke supports integration through service-oriented architecture. The integration uses webservices to other government entities, in order to validate employee data, such as National Identity,

National Social Security Fund (NSSF), Social Health Authority (SHA), and education qualifications with the Ministry of Education.

3.39. Lack of integration between HRIS-Ke and other dependent systems increases the risk of data inconsistencies, manual processing, and operational delays, leading to compromised data quality and service delivery.

3.40. In response to the management letter, the Ministry indicated that integration of the system with other government entities was complete and the next phase on implementation was in progress.

E. Functionalities of the Human Resource Information System-Kenya

3.41. A well-designed system should incorporate robust functionalities that align with business objectives, while ensuring efficiency and accuracy in operations. In addition, effective controls must be embedded to safeguard data integrity, enforce security, and ensure compliance with regulatory requirements. However, review of the HRIS-Ke functionalities revealed the following weaknesses: -

I. Manual Calculation of Arrears

3.42. The audit established that the calculation of salary arrears was performed outside HRIS-Ke, and subsequently uploaded into the system. This manual processing of arrears introduces risks of errors, inconsistencies, inefficiencies and payroll fraud.

II. Lumping Arrears together with other Allowances

3.43. The Payroll Reports accessible to Payroll Managers at MDAs and County Governments lumped together arrears with respective salary earnings. Payroll Managers, therefore, did not have access to detailed reports on staff earnings for proper verification of specific allowances and arrears paid to staff.

III. Net Pay Reports per Duty Station or Department were not Configured

3.44. The only exportable Net Pay Reports available from the the Payroll Module were; Staff Net Pay for the entire entity, Statutory Deductions, Third Party Deductions, and Departmental Deductions. This negatively affects transparency and accountability over personnel costs, budget inconsistencies and difficulties in monitoring and managing workforce distribution across departments.

IV. Inability to Generate the Previous Month's Payroll Reports

3.45. County Governments started using HRIS-Ke in December 2024. The audit established that in January 2025, payroll managers could not access and generate the previous month's payroll reports for December 2024. This increases the risk of inability to verify and correct payroll errors, payroll continuity issues on adjustments that depend on the previous month's data, and unauthorized changes made.

V. Payroll Managers could not Perform Pre-payroll Audit

3.46. The solution document highlights that the payroll processing phase was to support pre-payroll audit, where managers were to review and validate payroll changes before processing, and roll back payroll for amendments. However, this functionality was not configured.

VI. Lack of Audit Trail

3.47. The Solution Design Document v1.0 on audit trails and logging stated that HRIS-Ke was to maintain detailed logs of user activities for security and compliance purposes. This required implementation of audit trails to track changes to sensitive information and system configurations. However, the system was not configured to generate detailed logs of the users' activities.

VII. County Government Designations were not Configured in the System

3.48. Review of HRIS-Ke established that there were designations in the approved county government's staff establishments that had not been configured in the System. These designations included; Ward Administrator, Village Administrator, Sub-County Administrator, Town Administrator, Civic Educators, Enforcement Officer, Revenue Clerks, Geographical Information System Officer, Plumber, and Grounds man.

VIII. The Human Resource Information System was not Configured to Enforce the Retirement Age

3.49. Analysis of HRIS-Ke revealed cases of employees who had attained the retirement age of sixty (60) years and were still active in the payroll. This was an indication that the system did not enforce the control to auto-exit staff who had attained the retirement age. The details are contained in **Annexure 11**.

IX. Omission of Voluntary NSSF and Pension Amounts in HRIS-Ke

3.50. Analysis of HRIS-Ke revealed cases of employees whose voluntary deductions for NSSF and pension contributions were not deducted in December 2024, as detailed in **Annexure 12**.

X. HRIS-Ke not Configured to Enforce Salaries and Remuneration Commission Circulars and Collective Bargaining Agreements

3.51. Analysis of the HRIS-Ke Payroll for December 2024 revealed instances of overpayment and underpayment of salaries and allowances, as detailed below: -

- a) **Overpayment of Leave Travel Allowance** – Analysis of the HRIS-Ke December Payroll revealed that County Executive Committee Members were overpaid Leave Travel Allowance as detailed in **Annexure 13**.
- b) **Overpayment of Health Risk Allowance** - Nine (9) employees were overpaid Health Risk Allowance, as detailed in **Annexure 14**.
- c) **Underpayment of Health Risk Allowance** – One (1) employee was underpaid Health Risk Allowance, as detailed in **Annexure 15**.
- d) **Overpayment of Health Workers' Extraneous Allowance** – One hundred and ninety-eight (198) employees were overpaid health workers' extraneous allowance, as detailed in **Annexure 16**.
- e) **Underpayment of Health Workers' Extraneous Allowance** – Ninety-three (93) employees were underpaid health workers' extraneous as, as detailed in **Annexure 17**.
- f) **Non-payment of Health Workers' Extraneous Allowance** – Twenty-nine (29) health workers were not paid extraneous allowance, as detailed in **Annexure 18**.
- g) **Underpayment of Special Salary** – Two (2) officers were underpaid special salary, as detailed in **Annexure 19**.

3.52. This indicates that HRIS-Ke was not configured to comply with the various SRC circulars and CBAs on payment of salaries and allowances. The limited functionalities may hinder operational efficiency, requiring manual workarounds that increase the risk of errors, inefficiencies, and delays in service delivery.

4. CONCLUSION

- 4.1. The special audit established that the Human Resource Information System-Kenya lacks a structured governance and strategic framework. In particular, the Ministry's management had not developed an ICT strategy, adequate budgeting mechanisms, and formalized Service Level Agreements (SLAs). This gap undermines effective system management, accountability, and alignment with the Ministry's overall strategic objectives.
- 4.2. There were significant deficiencies in the development of HRIS-Ke , including, the absence of; formal agreements with system developers and dedicated quality assurance function. These deficiencies increase the risk of security breaches, intellectual property misuse, and unauthorized system changes.
- 4.3. The failure to implement critical modules, such as the Staff Establishment Module, and the lack of integration with other critical systems, limit the system's ability to support comprehensive human resource management. These gaps undermine data accuracy, necessitate manual interventions, and restrict real-time access to essential workforce information across departments, thereby impairing efficient decision-making.
- 4.4. The audit established that the Human Resource Information System-Kenya had significant control and functionality weaknesses, including: absence of an audit trail to monitor user activities; non-configuration of designations within the system; and lack of system-enforced retirement policies. These issues compromise data integrity, access security, and compliance with regulatory requirements. Additionally, operational shortcomings such as, manual computation of salary arrears, lumpsum payments, limited reporting capabilities, and inability to perform pre-payroll audits hinder transparency, accuracy, and efficiency in payroll processing and oversight.
- 4.5. The Payroll Module was not configured to automatically enforce circulars issued by the Salaries and Remuneration Commission and relevant Collective Bargaining Agreements . This deficiency led to inconsistent application of the approved remuneration guidelines. Consequently, there were instances of overpayments, underpayments, and irregular payments, thereby exposing the

Government to financial loss, compliance risks, and potential disputes with employees.

4.6. The migration process, from the Integrated Personnel and Payroll Database to HRIS-Ke did not have adequate governance structures. There was weak stakeholder involvement in the migration process. In addition, the roles and oversight responsibilities were not clearly defined, which could negatively affect the efficiency and completeness of the data migration process.

5. RECOMMENDATIONS

- 5.1. In view of the findings and conclusions of the special audit, the following is recommended to the State Department for Public Service and Human Capital Development.
- 5.2. For effective governance, management and operations of the Human Resource Information System-Kenya, the Management should: -
 - i. Develop, adopt, and implement a comprehensive ICT strategy, which should be aligned with the State Department's overall strategy and objectives. Further, the Management should develop and implement policies that ensure a structured approach to managing IT resources, in order to enhance confidentiality, integrity and availability of information systems.
 - ii. Ensure the allocation of adequate and comprehensive ICT budget for the entire HRIS-Ke Project lifecycle.
 - iii. Establish internal ICT Service Level Agreements and Operational Level Agreements. This will enable the Management to define service expectations, roles, and performance standards, thereby ensuring accountability and efficient service delivery to all MDAs and County Governments that are using HRIS-Ke.
- 5.3. To safeguard system security and intellectual property, all developers of HRIS-Ke should sign formal agreements, including Non-Disclosure Agreements and software license agreements that prohibit unauthorized modifications or reverse engineering. Additionally, a dedicated quality assurance team should be established in order to ensure that all system changes are authorized, thoroughly tested, and deployed in a controlled manner. This will minimize vulnerabilities to the Human Resource Information System - Kenya .
- 5.4. To ensure timely implementation of HRIS-Ke, the Management should establish clear milestones, enhance resource allocation, strengthen monitoring and evaluation mechanisms, and ensure proactive stakeholder engagement. In addition, the Management should prioritize the, implementation of the Staff Establishment Module and integration of HRIS-Ke with other systems dealing with payment settlements, payroll data consolidation and employee data validation.

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5.5. For effective functioning of the Human Resource Information System – Kenya, the Management should: -

- i. Upgrade HRIS-Ke to enable detailed audit trails, and enforce system automated prompts upon employees reaching retirement age. The system should also be enhanced to automate arrears computation, separate different payment components, and provide comprehensive reporting functionalities, such as net pay by duty station and the previous month's payroll reports. This will facilitate effective payroll management, monitoring, and enhance decision-making on human resource matters.
- ii. Ensure that all staff designations, as per the approved establishment, are fully configured in KHIS-Ke . This will promote data accuracy, enhance payroll integrity, and support effective personnel management.
- iii. Ensure HRIS-Ke is appropriately configured to automatically enforce salary structures, allowances, and related provisions, as stipulated in the Salaries and Remuneration Commission circulars, Collective Bargaining Agreements, and other relevant directives. Regular updates and system validations should also be implemented in order to ensure compliance, enhance payroll accuracy, and prevent irregular financial transactions.

5.6. To ensure efficiency in the migration process, from the Integrated Personnel and Payroll Database to HRIS-Ke, the Management should ensure that the Project Steering Committee is strengthened by incorporating the relevant stakeholders, including representatives of County Governments. In addition, the Committee should have clear roles, responsibilities, and decision-making authority in order to provide efficient strategic oversight and effective governance.

APPENDIX 1: LISTING OF ANNEXURES

Annexure No.	Annexure Name
Annexure 1	Employees in HRIS-Ke Payroll not in IPPD Payroll
Annexure 2	Employees in IPPD Payroll not Migrated to HRIS-Ke Payroll
Annexure 3	Employees in HRIS-Ke July Staff Register not in IPPD in the June 2024 Staff Register
Annexure 4	Employees in IPPD June Staff Register not in HRIS-Ke in the July 2024 Staff Register
Annexure 5	Differences in Job Groups in HRIS-Ke and IPPD
Annexure 6	Varying Engagement Codes
Annexure 7	Varying Detachment Codes
Annexure 8	Change in Special Need Status
Annexure 9	Unjustified Change in Job Group on Migration
Annexure 10	Change of Designation on Migration
Annexure 11	HRIS-Ke not Configured to Enforce Retirement Age
Annexure 12	Voluntary NSSF and Voluntary Pension Amounts in IPPD
Annexure 13	Overpayment of Leave Travel Allowance to Member
Annexure 14	Overpayment of Health Risk Allowance
Annexure 15	Underpayment of Health Risk Allowance
Annexure 16	Overpayment of Health workers Extraneous Allowance
Annexure 17	Underpayment of Health Workers Extraneous Allowance
Annexure 18	Non-payment of Health Workers' Extraneous Allowance
Annexure 19	Underpayment of Special Salary

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