



Harmonised Guidelines for Higher Education Data Collection and Management in the East African Community

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Acronyms

AI	Artificial Intelligence
API	Application Programming Interface
DAF EAC	Demographics of African Faculty in the East African Community
EAC	East African Community
EAQFHE	East African Qualifications Framework for Higher Education
ESG	Environmental, Social, and Governance
FAIR	Findable, Accessible, Interoperable, Reusable
GDPR	General Data Protection Regulation
GERD	Gross Domestic Expenditure on Research and Development
HE	Higher Education
HEIs	Higher Education Institutions
HEIMS	Higher Education Information Management System
HEMIS	Higher Education Management Information System
HRIS	Human Resource Information System
ICT	Information Communication Technology
IoT	Internet of Things
ISCED	International Standard Classification of Education Fields of Education and Training
LMS	Learning Management System
KPIs	Key Performance Indicators
IUCEA	Inter-University Council for East Africa

M&E	Monitoring and Evaluation
ML	Machine Learning
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
R&D	Research and Development
SIS	Student Information System
SDGs	Sustainable Development Goals
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Education Scientific and Culture Organisation

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Foreword

The Inter-University Council for East Africa (IUCEA) has been playing a central coordinating and advisory role in matters related to higher education to ensure that higher education institutions (HEIs) in the region are increasingly collaborating, as well as attaining internationally comparable standards. This is in line with Article 102 of the East African Community (EAC) Treaty whereby the Partner States agreed to undertake concerted measures to foster co-operation in education and training within the Community. IUCEA initiatives are also aligned with the EAC Vision 2050, which prioritises higher education as a key driver of regional integration, development, and global competitiveness.

Over the years, IUCEA has been developing and disseminating key regional higher education tools and frameworks to support coordination and strengthening of higher education and research in the EAC region. Such frameworks include the East African Qualifications Framework for Higher Education, the Regional Quality Assurance Frameworks, and the Research Excellence Framework for Higher Education in East Africa. Building on the existing Frameworks, the development of the Harmonised Guidelines for Higher Education Data Collection and Management in the East African Community is therefore in alignment with the EAC Vision, Continental agenda and global best practices in higher education data systems.

The Harmonised Guidelines for Higher Education Data Collection and Management in the East African Community seeks to provide a unified framework for improving higher education data quality, comparability, and usability across the region. The Guidelines are structured as supportive instruments to facilitate data-driven planning, policymaking, and quality assurance across higher education systems in the East African Community. These Guidelines are a generic instrument for the region upon which the Partner States, higher education regulatory bodies, and higher education institutions can leverage for effective data collection and management at different levels.

Implementation of these Guidelines requires commitment of various actors at all levels, inclusive and collaborative implementation approach, continuous capacity building for technical excellence and professional development, and adoption of clear sustainability plan for

data collection and management. It is therefore my sincere expectation that these Harmonised Guidelines for Higher Education Data Collection and Management in the East African Community will be adopted and used by all stakeholders in higher education for the region to realize the intended purpose of establishing a unified, efficient, and effective higher education data ecosystem that supports planning, policymaking, and quality assurance across.



Prof Gaspard Banyankimbona
EXECUTIVE SECRETARY

1.0 Background

The [East African Community \(EAC\) Vision 2050](#) prioritises improving access to quality education and increasing completion rates, particularly at higher levels, the development of critical skills that address both current and future needs, and investment in research and innovation within universities and research institutions. The Vision further emphasises the need for harmonious adoption of best practices in the management of institutions of higher learning to respond to the development needs of the region. The effective management of higher education institutions (HEIs) requires informed, evidence-based policy and management decisions, effective planning, and focused investments, all of which depend on the use of reliable and comprehensive data.

In the context of rapid digital transformation and the ongoing Fourth Industrial Revolution (4IR), HEIs in East Africa and around the world face unprecedented challenges and opportunities in data management. The convergence of advanced technologies, such as artificial intelligence (AI), big data analytics, and the Internet of Things (IoT), has reshaped how HEIs operate, teach, conduct research, and engage with students. As HEIs navigate this complex landscape, they must build capacity in data analytics and management to fully leverage these technologies.

In East Africa, as in other parts of Africa, HEIs are grappling with data collection and management challenges, as identified in Phase I of the [Demographics of African Faculty in the East African Community \(DAF EAC\)](#) project. The key challenges identified include fragmented data collection practices, inconsistent discipline classification, weak institutional capacity for data management, lack of standardised data governance frameworks, inadequate technical infrastructure, and limited inter-institutional data sharing mechanisms. In addition, a [Baseline Report on Data Collection and Management Practices in Higher Education Institutions in East Africa](#), published in 2025, shows that the region has an evolving and varying data governance landscape, characterised by weak institutional capacity and structure for data management across HEIs in the partner states.

The regional higher education landscape is also influenced by global trends including increasing emphasis on research impact measurement,

demand for real-time learning analytics, growing importance of environmental sustainability metrics, and the need for evidence-based policy making aligned with the United Nations Sustainable Development Goals (SDGs) 2030 and the African Union Agenda 2063.

The existing higher education data gaps need to be addressed through an integrated approach aimed at institutionalising and cultivating a strong culture of data collection, management and use. The *Harmonised Guidelines for Higher Education Data Collection and Management in the East African Community* are developed to provide a common framework and standards aimed at improving data collection and management practices. These guidelines align with the EAC Data Governance Policy Framework and incorporate international best practices, including the FAIR data standards (Findable, Accessible, Interoperable, and Reusable), as well as relevant continental and global standards.

The *Harmonised Guidelines* acknowledge and respect the diversity of HEIs across the region, valuing the unique strengths of their varied management structures. The aim of the guidelines is to enhance data quality, comparability, and usability across HEIs in the region, enabling regional cooperation, integration and development. These Guidelines, when effectively implemented, will facilitate evidence-based decision and policy making, enhance efficiency and institutional performance, optimise resource allocation and quality assurance, and enhance the regional comparability of higher education data.

2.0 Objectives

The objectives of the guidelines are to:

- i. Enhance the consistency and quality of higher education data collection in the region by establishing best practices that promote accurate, consistent, and timely data gathering, while reducing errors and inconsistencies.
- ii. Facilitate the sharing and dissemination of comparable higher education data for regional policy formulation, research, and public information.

- iii. Enhance regional comparability of higher education data.
- iv. Establish comprehensive data governance frameworks that ensure ethical, secure, and sustainable data management practices.
- v. Promote innovation in data analytics and adoption of modern technologies, such as AI and cloud-based systems, while ensuring cyber security and data protection.
- vi. Enable universities and policymakers to use high-quality data for strategic planning, resource allocation, and policy development, thereby fostering evidence-based decision- and policymaking.
- vii. Foster a culture of data-driven continuous improvement across East African higher education institutions.
- viii. Facilitate seamless data exchange between universities, supporting student mobility, joint research, and academic recognition within the region.

3.0 Scope

These guidelines apply to public and private HEIs that are accredited and recognised by the respective national councils/commissions for higher/university education within the EAC Partner States. These guidelines focus exclusively on data collection and management by HEIs, and do not cover early childhood, primary and secondary school education within partner states.

The guidelines are regional reference and benchmarking instruments to support adoption and strengthening of data collection tools and management practices within HEIs, relevant national bodies and at regional level. These guidelines comprise the following components:

- a) Data specifications (sources, types, and classifications).
- b) Data collection methods (tools and implementation).
- c) Data quality (assurance and validation).
- d) Data security and privacy.
- e) Data sharing and dissemination.

- f) Research and innovation data management.
- g) Data governance framework.
- h) Technical infrastructure (architecture and systems).

In addition, the guidelines address:

- Key stakeholder roles
- Implementation processes
- Monitoring and evaluation mechanisms

4.0 Data Specifications (sources, types, and classifications)

Sources and types of higher education data are categorised at three levels: institutional, national, and regional.

1. Institutional-level data consists primarily of data collected directly by HEIs, including:
 - Student and staff records
 - Academic programmes
 - Research and innovation outputs
 - Infrastructure and resources
 - Accreditation and quality assurance data
 - Internationalisation activities
 - Graduate outcomes.

2. National-level data comprises information held by government agencies, including:
 - Aggregated institutional data from HEIs.
 - Accreditation and quality assurance records from regulatory bodies.
 - National education statistics and policy documents
 - Data from external stakeholders (industry partners and international organisations).

3. Regional-level data encompasses:

- Higher education initiatives from participating HEIs.
- Aggregated national data from partner states.
- Data integrated with the Regional Higher Education Information Management System (HEIMS).

Table 1 presents a detailed breakdown of data types at each level, with updated categories aligned with contemporary higher education needs and international best practices.

Table 1: Data types by collection level

1. Institutional Level	
a. Institutional Profile Data	<ul style="list-style-type: none"> • Institution name and short name (e.g. MaK for Makerere University and UoN for University of Nairobi) • Type (University, Technical University, University College, etc.) • Ownership (Public, Private, Faith-based, or International) • Location (GPS coordinates, rural/urban classification) • Year of establishment • Accreditation status (national, regional, international)
b. Governance Data	<ul style="list-style-type: none"> • Governance structures (council, senate, management) • Institutional policies (gender, disability, inclusion, etc.) • Risk management plans • Sustainability plans

<p>c. Student Data</p>	<p>i. Student Enrolment</p> <ul style="list-style-type: none"> • Total enrolment (by programme and year) • Age, gender, nationality • Socio-economic background • Entry qualifications (by education system and grade level) • Programme of study with ISCED/UNESCO codes • Level of study (certificate, diploma, bachelor's, master's, doctoral) • Mode of study (full-time, part-time, face-to-face, distance, online) • First-generation status • Disability status and type of impairment • Retention and progression data • Dropout and transfer rates <p>ii. Academic performance</p> <ul style="list-style-type: none"> • GPA/grades distribution • Progression rates <p>iii. Graduation</p> <ul style="list-style-type: none"> • Time to completion and retention rates • Graduation rates (overall, gender disaggregated, and by field)
<p>d. Staff data</p>	<p>i. Staff Employment</p> <ul style="list-style-type: none"> • Number and profile of academic, technical, and administrative staff • Age, gender, nationality

	<ul style="list-style-type: none"> • Educational qualifications and field of specialisation • Employment terms (full-time, part-time, contractual, adjunct) • Disability status and type of impairment • Academic rank and promotion history • Research productivity and publication metrics • Teaching load and academic staff-to-student ratios • Participation in governance and leadership roles • International collaboration and mobility experience • Equity and diversity indicators <p>ii. Performance and evaluation</p> <ul style="list-style-type: none"> • Staff appraisal mechanisms (including peer and student evaluations) • Professional development participation and outcomes • Sabbatical and study leave uptake • Awards and recognitions <p>iii. Professional body memberships</p>
<p>e. Academic Programmes and Qualifications Data</p>	<ul style="list-style-type: none"> • Programme name and qualification level • Field of study (using international classification standards) • Curriculum structure and learning outcomes • Duration

	<ul style="list-style-type: none"> • Mode of delivery (face-to-face, blended, online) • Entry and exit requirements • Accreditation status and review history • Graduate attributes • Work-integrated learning and internships • Internationalisation features (joint/double degrees, exchange programmes) • Number of graduating cohorts per programme • Programme review cycle and quality audit results
<p>f. Infrastructure and Facilities Data</p>	<ul style="list-style-type: none"> • Number of lecture halls/classrooms disaggregated by size or seating capacity category (e.g., small: <50, medium: 50 – 100, large: >100) • Average space per student (sq. m per student) • Library space (sq. m) per student • Laboratory space per student • Number of computer laboratories and computer-to-student ratio • Number of hostels • Student housing ratio • Number of green-certified buildings • Use of renewable energy (% of total energy) • % of buildings with wheelchair access • Facilities for persons with disabilities

<p>g. Digital Learning and Technology Data</p>	<ul style="list-style-type: none"> • ICT infrastructure (bandwidth, devices, connectivity) • LMS adoption and student/academic staff engagement metrics • Online course enrolment and success rates • Digital skills development programmes • Integration of AI in teaching and learning, assessment, and research • Cybersecurity policies and incidents • Open educational resources usage and development • Available assistive technologies • Software and hardware inventory licences
<p>h. Research and Innovation Data</p>	<ul style="list-style-type: none"> • Number and type of research projects • Research themes and their alignment to national, regional, continental and global priorities • Research funding sources and amounts (public, private, international) • Proposal success rates and research income per academic staff • Peer-reviewed publications (with DOIs and open access status) • Citations and h-index indicators • Intellectual property registered • Research outputs and Intellectual property commercialised

	<ul style="list-style-type: none"> • Spin-offs, start-ups, and industry collaboration • Research data management plans and FAIR principles adoption • Research Ethics approvals • Research misconduct cases • Gender-disaggregated Participation in research consortia and networks • Student research
<p>i. Innovation Ecosystem Data</p>	<ul style="list-style-type: none"> • Incubators and accelerators supported • Number of start-ups and their success rates • IP licensing agreements and revenue generated • Industry-university collaborative R&D projects • Technology transfer metrics • Innovation competitions and awards
<p>j. Quality Assurance Data</p>	<ul style="list-style-type: none"> • Internal QA mechanisms (committees, evaluations, benchmarks) • Programme and institutional evaluation and accreditation reports • National, regional, and international accreditation levels • Internal audit and self-assessment reports • External review reports • Student and staff satisfaction surveys

	<ul style="list-style-type: none"> • Student learning analytics and attendance tracking • Examination moderation and invigilation reports
k. Internationalisation Data	<ul style="list-style-type: none"> • Number and profile of international students • International academic and non-academic staff • Inbound and outbound mobility (students, staff) • Collaborative academic and research programmes • Participation in international networks and consortia • Benchmarking against global institutions
l. Partnerships and Collaboration Data	<ul style="list-style-type: none"> • Total number of active partnerships • Type of partners (academia, industry, government, NGOs) • Activities: internships, joint/dual degrees, research collaboration, mobility • Partnership outcomes and impact (publications, funding, employment) • MOU/MOA monitoring and evaluation reports
m. Financial Data	<ul style="list-style-type: none"> • Total institutional budget and sources of revenue • Government subvention • Tuition and other student fees • Third-stream income (consultancies, services, commercialisation)

	<ul style="list-style-type: none"> • Research grants and project funding • Infrastructure investments and capital expenditure • Financial aid and scholarships to students and staff • Financial sustainability indicators
<p>n. Alumni Data</p>	<ul style="list-style-type: none"> • Demographic information (name, gender, nationality, etc) • Year of graduation • Employment status • Engagement mechanisms (chapters, platforms, giving programmes) • Contributions (mentorship, financial support, networking) • Alumni achievements and recognition • Existing alumni incentives (if any)
<p>o. Graduate Tracer Data</p>	<ul style="list-style-type: none"> • Employment status and job type • Self-employment and Entrepreneurial activity (business formation, employment created) • Further study enrolment (local and international) • Social impact contributions • Skills relevance and employer satisfaction • Alumni satisfaction and tracer studies • Graduate Employment rates at 6, 12, and 24 months

2. National Level	
<ul style="list-style-type: none"> • <i>List of nationally accredited institutions with detailed institutional profiles</i> • <i>Aggregated national HE data aligned with institutional level data using standardised reporting formats</i> • <i>National HE statistics</i> • <i>National higher education policy norms</i> • <i>National qualification framework alignment and recognition agreements</i> • <i>Cross-border education provision and quality assurance</i> • <i>National research and innovation performance indicators</i> 	
a. Institutional Landscape	<ul style="list-style-type: none"> • Comprehensive list of nationally accredited higher education institutions • Detailed institutional profiles (type, location, ownership, enrolment, staff, programmes) • Classification framework (university, university college, Open University, etc.)
b. Enrolment and Graduation Data	<ul style="list-style-type: none"> i Aggregated student enrolment by: <ul style="list-style-type: none"> • Level (undergraduate, postgraduate) • Gender • Discipline (using ISCED fields) • STEM enrolments vs non-STEM enrolments • Region/province • Public/private institution ii Graduation data: <ul style="list-style-type: none"> • Annual graduation rates • Completion rates • Time-to-degree • STEM graduates vs non-STEM graduates • Gender parity index

<p>c. Staff Statistics</p>	<ul style="list-style-type: none"> • Academic and administrative staff numbers • Gender and age distribution • Qualifications profile • Academic staff-to-students ratios • International academic staff presence
<p>d. Research and Innovation</p>	<ul style="list-style-type: none"> • National research output (number scientific publications per million people, citation impact or h-index of national researchers, share of publications with international co-authors, etc.) • Research funding by source (government, e.g. Gross Expenditure on R&D (GERD) (% of GDP), R&D expenditure per capita; donor, industry, institutional) • National innovation performance indicators (patents, start-ups or spin-offs, incubators) • Participation in international research consortia • Number of researchers per million inhabitants • University-industry research collaboration rate
<p>e. Graduate Outcomes</p>	<ul style="list-style-type: none"> • National graduate tracer study results • Employment/unemployment rates by field of study • Skills mismatch analysis • Wage data and income distribution by qualification • National alumni mobility and brain drain indicators

<p>f. Quality Assurance and Regulation</p>	<ul style="list-style-type: none"> • List of accredited programmes with accreditation cycles • Accreditation status by institution and programme • Audit and quality assurance reports • Outcomes of institutional reviews • Compliance with national qualification frameworks (NQFs) • Participation in cross-border quality assurance initiatives
<p>g. Equity, Access and Inclusion</p>	<ul style="list-style-type: none"> • Participation by socio-economic background • Access data by rural/urban origin • First-generation student metrics • Students with disabilities • Gender equality indicators • Financial aid coverage and impact
<p>h. Financing and Resource Allocation</p>	<ul style="list-style-type: none"> • Government higher education budget and expenditure breakdown • Tuition fee trends and cost-sharing models • Student financial aid schemes (loan uptake, grants, scholarships) • Expenditure per student and international comparisons
<p>i. Policy and Regulatory Environment</p>	<ul style="list-style-type: none"> • National higher education strategic plan and implementation indicators • Legislation and regulatory framework updates • Higher education reform initiatives • Existence of national STI policy/strategy • National R&D fund in operation

	<ul style="list-style-type: none"> • Technology transfer offices (TTOs) or incubators • National research priorities and alignment with SDGs • Regulatory frameworks for IP, open science, ethics.
j. Internationalisation	<ul style="list-style-type: none"> • Number and profile of international students, academic and non-academic staff • Cross-border programme delivery (branch campuses, online, partnerships) • Regional recognition agreements • National student mobility statistics
3. Regional Level	
<ul style="list-style-type: none"> • <i>Link to nationally accredited institutions across the region with regional recognition and mobility agreements.</i> • <i>Aggregated Regional higher education data aligned with national level data using harmonised indicators.</i> • <i>Regional higher education initiatives and programmes with detailed impact assessment.</i> • <i>Regional higher education policy with implementation monitoring and evaluation.</i> • <i>Regional qualification recognition and student mobility statistics.</i> • <i>Cross-border research collaboration and joint degree programmes.</i> • <i>Regional higher education competitiveness and benchmarking indicators.</i> 	
a. Institutional and Programme Recognition	<ul style="list-style-type: none"> • List of national accredited higher education institutions by country. • Mutual recognition of qualifications and credit transfer frameworks.

	<ul style="list-style-type: none"> • Regional database of accredited programmes. • Programme levels (undergraduate, masters, doctoral, etc.) • Availability of joint/double degree or collaborative programmes. • Programme language(s) of instruction.
<p>b. Enrolment Data</p>	<ul style="list-style-type: none"> • Total student enrolment by country and institution • Enrolment by level (undergraduate, postgraduate) • Enrolment by field of study (harmonised categories) • Gender-disaggregated enrolment data • Number and share of international students by country of origin • Participation of students with disabilities at regional level
<p>c. Graduate and Labour Market Data</p>	<ul style="list-style-type: none"> • Number of graduates by level and field of study • Employment rates within 6 or 12 months after graduation • Share of graduates working in other countries within the region • Graduate skills relevance (from tracer studies or employer surveys) • Further study rates within and outside the region
<p>d. Academic Staff Data</p>	<ul style="list-style-type: none"> • Number of academic and administrative staff by institution and country • Staff by qualification level and field of specialisation

	<ul style="list-style-type: none"> • Gender-disaggregated data • Staff mobility across countries in the region • Participation in regional training, research, or QA activities
e. Research and Innovation	<ul style="list-style-type: none"> • Number and scope of regional research collaborations and networks • Joint publications and co-authorship across countries • Research funding secured from regional and international sources • Regional innovation initiatives (e.g., incubators, spin-offs, joint patents) • Participation in regional thematic research programmes • Impact metrics for regional research (e.g., citation impact, patents, start-ups)
f. Quality Assurance and Regulation	<ul style="list-style-type: none"> • Regional QA frameworks and tools • Collaboration between national QA agencies • Outcomes of regional peer review mechanisms • External quality assurance capacity building • Quality assurance of cross-border provision • Compliance with regional QA standards
g. Internationalisation and Mobility	<ul style="list-style-type: none"> • Number of inbound and outbound students in regional exchange programmes • Number of joint or double degree programmes operating across borders

	<ul style="list-style-type: none"> • Participation in regional mobility schemes • Staff mobility programmes and exchanges
h. Financing and Resource Indicators	<ul style="list-style-type: none"> • National spending on higher education as % of GDP or public expenditure • Tuition fees by country and level (regional comparability) • Resource disparities across the region (student/staff ratios, per-student expenditure)
i. Policy and Integration	<ul style="list-style-type: none"> • Regional HE policy instruments and implementation tracking • Progress towards harmonised qualifications and credit systems • Monitoring of regional integration targets • Policy dialogues, ministerial conferences, and stakeholder consultations
j. Competitiveness and Benchmarking	<ul style="list-style-type: none"> • Regional HE competitiveness index • Benchmarking of graduate employability • Institutional ranking initiatives with regional criteria • Capacity building and leadership development metrics • Tracking contributions of higher education to regional development goals.

5.0 Data Governance Framework

Effective data governance is fundamental to successful implementation of these guidelines. The data governance framework establishes principles, policies, and procedures that ensure data is managed as a strategic asset throughout its lifecycle.

5.1 Data Governance Principles

The following principles guide all data management activities outlined in these guidelines:

- i. **Accountability:** Clear assignment of data ownership, stewardship, and decision-making authority.
- ii. **Transparency:** Open and clear communication about data collection, use, and sharing practices.
- iii. **Integrity:** Ensuring data accuracy, completeness, and reliability throughout its lifecycle.
- iv. **Privacy by design:** Incorporating privacy protection measures from the initial design stage.
- v. **Ethical Use:** Ensuring data is used responsibly and for legitimate educational purposes.
- vi. **Sustainability:** Implementing long-term viable data management practices.
- vii. **Interoperability:** Ensuring data can be exchanged and used across systems and institutions.

5.2 Data Lifecycle Management

All data shall be managed through the following lifecycle stages:

- i. **Planning:** Data management planning and resource allocation.
- ii. **Collection:** Systematic data gathering using standardised methods.
- iii. **Processing:** Data validation, cleaning, and transformation.
- iv. **Storage:** Secure, accessible, and sustainable data storage.

- v. **Sharing:** Controlled access and dissemination according to agreed protocols.
- vi. **Preservation:** Long-term retention for historical analysis and compliance.
- vii. **Disposal:** Secure deletion according to retention policies and legal requirements.

6.0 Data Collection Methods and Tools

The adoption of standardised and efficient data collection methods and tools in higher education (HE) is essential for ensuring data quality and reliability. These methods and tools should be aligned with institutional and national goals, available resources, and the specific types of data required. Institutions are encouraged to build capacity and use reliable real-time systems for efficient data collection and management. This requires adoption and application of integrated ICT systems to enhance efficiency.

Given the diversity of HE data, institutions and agencies at institutional, national, and regional levels employ a variety of data collection approaches. Some data—such as enrolment or financial transactions—require real-time collection systems, while other data may be sourced from archives, administrative documents, or published literature, each necessitating different methodologies.

Regardless of the method used, it is crucial to ensure that the data collected is accurate and that the integrity of the collection process is maintained. All data collection activities should adhere to the FAIR principles (Findable, Accessible, Interoperable, and Reusable), and should incorporate emerging technologies to enhance efficiency, accuracy, and usability.

The key data collection methods and tools used for HE data include:

- i. **Student Information Systems (SIS):** These are used to collect data such as student demographics, academic programmes, registration status (full-time/part-time) and progress and retention data.
- ii. **Online registration platforms:** These include web portals where students self-register and update personal details.

- iii. **Application and admission portals:** They capture data during the admissions process. The data captured include prior qualifications, school leaving results and programme choices.
- iv. **Manual entry, including manual reporting templates for ministries and regulators.** This is used where automation is limited.
- v. **HR Information Systems (HRIS):** These are digital systems used to manage employee records and HR processes. The data collected includes staff demographics, appointment and positions, and rank and qualifications.
- vi. **Enterprise Resource Planning (ERP) Systems:** These are comprehensive platforms for managing budgeting, procurement, income, and expenditure. Data collected include tuition revenue, operational and capital expenditure, research income and cost centres and budgets.
- vii. **Surveys:** These are used to collect qualitative and experiential data from students and staff. Tools used include **Google Forms, Qualtrics and SurveyMonkey.**
- viii. **Integrated Data Warehouses:** These are centralised repositories that consolidate data from multiple systems.
- ix. **Learning analytics and educational data mining:** Advanced analytics techniques to extract insights from learning management systems (LMS), student information systems, and digital learning platforms to improve educational outcomes and institutional effectiveness.
- x. **Internet of Things (IoT) and Sensor-Based Data Collection:** Automated collection of environmental, usage, and behavioural data through smart campus technologies, including facility utilisation, energy consumption, and student engagement metrics.
- xi. **Artificial intelligence (AI) and machine learning:** Automated data processing, pattern recognition, and predictive analytics to enhance data quality, identify trends, and support decision-making processes.

- xii. **Mobile data collection:** Smartphone and tablet-based data collection tools that enable field data gathering, offline data entry, and real-time synchronization with central databases.

Other methods of data collection include focus group discussions, which may target individuals in groups who are knowledgeable about a particular matter. Snowballing, as a method to identify such individuals with similar traits, has long been used. Document review, sometimes referred to as content analysis, involves the examination of existing records. This may take the form of students' work, publications, reports, etc. Social media analytics and web scraping techniques may also be employed for sentiment analysis and public engagement metrics, subject to privacy regulations and ethical guidelines.

There are increasingly more tools available to support data collection in HEIs. These include data analytics, where HEIs leverage analytical tools to examine large datasets, identify trends, and make data-driven decisions. Advanced analytics should incorporate predictive modelling, machine learning algorithms, and artificial intelligence applications for educational improvement. Data collection may also include assessment tools, where various methods—such as standardised tests, course assessments, and student portfolios—are used to gather data on learning and performance, among others. Other tools may include data visualisation platforms, educational data mining and analytics tools, cloud-based data platforms, automated reporting systems, and real-time dashboard applications.

6.1 Data Collection Technology Standards

All data collection tools and platforms should meet the following technical standards:

- i. **Platform independence:** Solutions should be accessible across different operating systems and devices.
- ii. **Scalability:** Systems should handle increasing data volumes and user loads efficiently.
- iii. **Security:** End-to-end encryption and secure data transmission protocols.

- iv. **Accessibility:** Compliance with international accessibility standards.
- v. **Offline Capability:** Ability to collect data in areas with limited internet connectivity.
- vi. **Multi-language Support:** Local language interfaces for improved usability and data quality.

7.0 Quality Assurance and Data Validation

Quality assurance of collected data is very important to ensure that HE data reflects the true picture at institutional, national and regional levels. For this to happen, HEIs, national regulatory bodies and regional organisations should adhere to key principles of data management, which include:

- i. **Accuracy:** Data accuracy ensures reflection of the true conditions. This is achieved by appropriate use, review and optimisation of data collection tools and processes. Accuracy should be measured using statistical indicators such as error rates, validation pass rates, and data quality scores.
- ii. **Completeness:** Institutions are responsible for ensuring that all required data fields are fully and accurately completed prior to submission.
- iii. **Timeliness:** Data should be collected, analysed and reported as per agreed regular schedules (e.g., quarterly, annually). Real-time monitoring dashboards should track data submission deadlines and processing times.
- iv. **Relevance:** Collected, analysed and reported data should be meant to meet policy and planning needs. Regular stakeholder consultations should ensure data collection remains aligned with emerging policy priorities and institutional needs.
- v. **Consistency:** Data definitions, classifications, and collection methods should be standardised across institutions and time periods to enable meaningful comparisons.

- vi. **Validity:** Data should accurately represent the concepts and phenomena being measured, with clear operational definitions and measurement instruments.
- vii. **Reliability:** Data collection methods should produce consistent results when repeated under similar conditions.

Data quality and reliability should be upheld throughout the data collection and analysis process. Challenges such as incomplete or missing data, data entry errors, measurement errors, and data coding/categorisation errors can impact the integrity and usefulness of the data. To ensure data quality and reliability, robust mechanisms should be implemented at various levels. These mechanisms include:

- i. Use of automated data checks and validation techniques at entry points and during the processing. This includes implementing machine learning algorithms for anomaly detection, real-time validation rules, and automated data profiling.
- ii. Involving relevant stakeholders' validation. Stakeholder validation should include peer review processes, expert panels, and user feedback mechanisms.
- iii. Proper training of data entry personnel and managers.
- iv. Adherence to the standardised definitions and classifications for all data elements. Data dictionaries should be maintained as living documents with version control and change management processes.
- v. Conducting regular data quality audits, such as annual data audits at national level. Audits should follow international standards and include both automated and manual validation processes.

7.1 Advanced Quality Assurance Mechanisms

The following advanced quality assurance mechanisms should be implemented:

- i. **Statistical Process Control:** Use of control charts and statistical methods to monitor data quality over time
- ii. **Data Lineage Tracking:** Comprehensive documentation of data origins, transformations, and processing steps

- iii. **Crowdsourced Validation:** Engaging multiple stakeholders in data verification processes
- iv. **Blockchain-Based Integrity:** Implementing distributed ledger technology for tamper-proof audit trails
- v. **Continuous Quality Monitoring:** Real-time dashboards and alerts for quality metrics and threshold breaches
- vi. **Cross-Validation Techniques:** Comparing data across multiple sources and collection methods for consistency verification.

7.2 Data Quality Metrics and KPIs

Institutions should track and report on the following data quality indicators:

- i. **Accuracy Rate:** Percentage of data points that pass validation rules.
- ii. **Completeness Rate:** Percentage of required fields that are populated.
- iii. **Timeliness Score:** Percentage of data submissions meeting deadline requirements.
- iv. **Consistency Index:** Measure of data standardization across different sources.
- v. **Error Detection Rate:** Speed and effectiveness of quality control processes; and
- vi. **User Satisfaction:** Stakeholder feedback on data quality and usability.

8.0 Data Security and Privacy

Security and privacy of data is paramount at institutional, national and regional levels. HEIs are required to align with national legal frameworks providing governance and regulations on data security and privacy.

The data security and privacy framework should be built on Zero Trust Architecture principles, assuming that threats can exist both inside and outside the traditional network perimeter.

Among the key measures to ensure HE data security and privacy are:

- i. Establishing and implementing clear data access policies and procedures. Access policies should be based on role-based access control (RBAC) with multi-factor authentication and regular access reviews.
- ii. Putting in place security measures which include encryption, access controls, and regular backups. Security measures should include end-to-end encryption (AES-256), intrusion detection systems, vulnerability assessments, and disaster recovery procedures.
- iii. Providing regular training to staff on data security and privacy best practices.
- iv. Developing and implementing an incident response plan to effectively address data breaches or security incidents. Incident response plans should include clear escalation procedures, communication protocols, legal notification requirements, and recovery strategies.

8.1 Privacy Protection Framework

The following privacy protection measures shall be implemented:

- i. **Privacy by design:** Privacy considerations integrated into all system designs and data processes from the outset.
- ii. **Data minimisation:** Collection and processing of only the minimum data necessary for specified purposes.
- iii. **Purpose limitation:** Use of data only for declared purposes with explicit consent for additional uses.
- iv. **Storage limitation:** Retention of personal data only for as long as necessary for specified purposes.
- v. **Transparency:** Clear communication to data subjects about data collection, use, and sharing practices.
- vi. **Individual rights:** Mechanisms for data subjects to access, correct, and delete their personal information.

8.2 Compliance and Audit Framework

All institutions shall ensure compliance with:

- i. National data protection laws and regulations.
- ii. Privacy Compliance Checks in audit.
- iii. International privacy standards and frameworks.
- iv. Sector-specific security requirements.
- v. Institutional privacy policies and procedures.
- vi. Regular third-party security audits and assessments.
- vii. Continuous monitoring and compliance reporting.

9.0 Data Sharing and Dissemination

The sharing and dissemination of comparable higher education data are essential for informed planning, effective policymaking, and evidence-based decision-making at the national level. At the regional level, the availability of reliable and harmonised data will strengthen cooperation in higher education and research, enabling benchmarking, joint initiatives, and policy harmonisation.

The key data sharing practices principles include:

- i. **Balance:** Balancing openness and transparency with individual and institutional privacy protection.
- ii. **Governance:** Establishing clear data governance frameworks, adherence to relevant privacy regulations at national level.
- iii. **Security:** Implementing secure data-sharing protocols to prevent unauthorised access.
- iv. **Interoperability:** Establishing common data standards and interoperable systems in order to facilitate data exchange.
- v. **Comparability:** Enabling meaningful comparisons and integration. This allows for regional analysis.

The following mechanisms will be adopted to enhance effective HE data sharing and dissemination:

- i. Establishment of Higher Education Information Management System (HEIMS): At regional level, IUCEA in collaboration with

Councils/Commissions responsible for HE will implement HEIMS to facilitate effective sharing and dissemination of key relevant HE data in the region.

- ii. Establishment of a Regional Higher Education Data Repository: IUCEA will work with HEIs, and members states to develop a secure and accessible regional platform for storing and sharing aggregated and anonymized HE data.
- iii. Awareness creation and advocacy to key stakeholders on defining clear data sharing protocols among Partner States, regional bodies, researchers, and other stakeholders, while respecting data privacy and confidentiality.
- iv. Capacity building for HEI stakeholders on collection, analysis and utilisation of HE data. Capacity building initiatives should encompass technical training, leadership development, and ongoing professional development programmes, including certification pathways to ensure sustained expertise and institutional capability.

9.1 Open Data Framework

Where appropriate and legally permissible, institutions should adopt open data practices to promote transparency, accountability, and broader use of higher education data. Such practices should be guided by data governance frameworks that protect privacy while enabling public access to non-sensitive information. Key elements of open data practices include:

- i. **Open data portals:** Provision of public access to non-sensitive, aggregated institutional data through user-friendly platforms.
- ii. **Clear licensing frameworks:** Use of standard licensing models such as Creative Commons to define terms of data reuse and redistribution.
- iii. **Machine-readable formats:** Availability of datasets in standardised, machine-readable formats to facilitate automated analysis and interoperability.

- iv. **Regular updates:** Systematic and timely updating of open datasets in accordance with published schedules to ensure relevance and reliability.
- v. **User support and documentation:** Provision of metadata, user guides, training, and technical assistance to support effective data use by researchers, policymakers, and the public.
- vi. **Impact monitoring:** Tracking and evaluation of the use, outcomes, and value generated from open data initiatives to inform future improvements.

9.2 Data Access Framework

Clear and robust policies shall govern access to and use of institutional data to ensure responsible data stewardship, protect sensitive information, and promote ethical and effective use. These policies should address the following key areas:

- i. **Tiered access levels:** Defined access permissions based on user roles, institutional affiliation, and the sensitivity or classification of the data (e.g., public, restricted, confidential).
- ii. **Research ethics approval:** Mandatory ethical review and approval for research proposals involving the use of sensitive or personally identifiable data, in line with national and institutional ethical guidelines.
- iii. **Commercial use guidelines:** Clear policies outlining the terms and conditions for the commercial use of institutional data, including licensing, fees, and intellectual property considerations.
- iv. **Attribution and citation requirements:** Obligations for users to appropriately cite and acknowledge the source of data in publications, reports, or derivative works.
- v. **Monitoring and compliance mechanisms:** Systems for tracking data access and usage, auditing compliance with access conditions, and managing breaches or misuse.
- vi. **Regular policy review and updates:** Periodic review and revision of data access policies to reflect legal developments, technological advancements, stakeholder feedback, and evolving institutional priorities.

10.0 Key Stakeholders and Implementation of the Guidelines

The key stakeholders in the implementation of the Guidelines for Higher Education Data Collection and Management for East Africa will include the HEIs, regulatory bodies such as commissions/Councils for higher/university education, and the ministries responsible for higher education/universities. The stakeholders will be responsible for various roles at institutional, national and regional levels.

The implementation approach should be collaborative, inclusive, and phased to ensure sustainable adoption across the diverse higher education landscape of East Africa.

The Guidelines will be implemented by the diverse stakeholders as outlined in Table 2.

Table 2: Roles of Key Stakeholders of the Guidelines

Stakeholder	Roles
<p>IUCEA in collaboration with other Regional institutions</p>	<ul style="list-style-type: none"> i. Coordinate the high-level advocacy for the adoption and use of the guidelines in all partner states and in higher education institutions in the region. ii. Oversee the implementation of the guidelines across the region, including technical assistance and capacity building support iii. Support the linkage of relevant data from national level to a regional Higher Education Information Management System (HEIMS). iv. Disseminate the Guidelines to diverse stakeholders in the region using various channels (printed and soft copies, webinars, workshops, conferences and

Stakeholder	Roles
	<p>meetings), including digital platforms and social media.</p> <ul style="list-style-type: none"> v. Build capacity and engage various partners to support capacity building programmes for implementation of the guidelines. vi. Mobilise resources and facilitate key initiatives to support effective implementation of the guidelines in the region. vii. Monitor and evaluate the adoption and implementation of the guidelines at regional level. viii. Establish and maintain regional HE data standards. ix. Facilitate cross-border data sharing agreements and protocols in higher education. x. Facilitate the establishment of a regional network of HE data experts.
<p>Ministries Responsible for higher education/ Universities</p>	<ul style="list-style-type: none"> i. Develop or review national policies to support adoption and implementation of the guidelines nationally Including legal frameworks and regulatory mechanisms. ii. Disseminate and promote awareness of the guidelines to all HEIs at the national level through official channels and policy directives. iii. Finance initiatives and programmes to support implementation of the guidelines in HEIs including infrastructure development and capacity building.

Stakeholder	Roles
	<ul style="list-style-type: none"> iv. Coordinate with other government agencies for integrated data governance. v. Establish national data sharing protocols and privacy frameworks.
<p>National Councils/Commissions for higher education</p>	<ul style="list-style-type: none"> i. Enforce data standards that are aligned with implementation of the guidelines in HEIs nationally. ii. Disseminate the Guidelines to HEIs at national level using various channels (printed and soft copies, webinars, workshops, conferences and meetings). iii. Develop national-level KPIs aligned with national policies for data collection across HEIs. iv. Conduct regular national higher education data audits and assessments on implementation of the guidelines. v. Build capacity of HEIs nationally on adoption and implementation of the guidelines through training programmes and technical assistance. vi. Monitor and evaluate the adoption and implementation of the guidelines by HEIs nationally. vii. Coordinate and link relevant higher education data from national level to regional HEIMS at IUCEA ensuring data quality and security compliance. viii. Facilitate peer learning and best practice sharing among institutions.
<p>HEIs</p>	<ul style="list-style-type: none"> i. Collect and validate data within the institutions using standardised methods and established quality assurance procedures.

Stakeholder	Roles
	<ul style="list-style-type: none"> ii. Promote and ensure adherence to data guidelines within the institutions through institutional policies and staff training. iii. Develop institutional-level KPIs aligned with national policies for data collection. iv. Provide a supportive institutional environment and governance structure for implementation of the guidelines, including the establishment of dedicated data management units and allocation of appropriate resources. v. Submit relevant, validated data to the National Council/Commission for higher education and other designated national bodies in accordance with agreed timelines and established quality standards. vi. Ensure regular reporting on the implementation of the guidelines, including challenges encountered, improvement plans, and evidence-based recommendations, submitted to the National Council/Commission for Higher Education. vii. Invest in technical infrastructure and human capacity to strengthen institutional data management systems and capabilities. viii. Participate actively in regional networks and communities of practice to promote knowledge exchange, collaboration, and harmonisation of data practices. ix. Embed data management as a core function within the HEI.

11.0 Monitoring and Evaluation

Implementation of the harmonised guidelines will require regular monitoring and evaluation (M&E) to ensure effectiveness, identify areas for improvement, and enhance the overall impact of the guidelines. The M&E framework will operate at three levels—institutional, national, and regional—and will employ a combination of quantitative indicators and qualitative assessments.

The framework will follow results-based management (RBM) principles, incorporating clear logic models, defined outcome indicators, and robust impact measurement strategies.

11.1 Regional Level Monitoring

At the regional level, the Inter-University Council for East Africa (IUCEA) will establish key performance indicators (KPIs) to monitor the implementation and achievement of the objectives of the harmonised guidelines. These KPIs will include, but are not limited to:

- i. Implementation of the regional Higher Education Information Management System (HEIMS), including system uptime, user adoption rates, and data integration completeness.
- ii. Operationalisation and annual updates of the regional higher education data repository, measured by data quality scores and user satisfaction metrics.
- iii. Number of Partner States that have developed or reviewed national guidelines for higher education data collection and management, with implementation status tracking.
- iv. Number of National Councils/Commissions for Higher Education collecting data from HEIs using standardised formats.
- v. Number of National Councils/Commissions linking standardised national data to the regional HEIMS hosted by IUCEA.
- vi. Percentage of IUCEA member institutions publishing relevant information and data on their institutional websites.

11.2 National Level Monitoring

At the national level, KPIs will be aligned with national policies and the customised national higher education data collection and management guidelines. National level Monitoring will focus on:

- i Integration with regional frameworks,
- ii Data quality,
- iii System Performance, and
- iv Stakeholder Compliance.

11.3 Institutional Level Monitoring

Institutional KPIs will be aligned with both national policies and institutional strategies to support continuous, high-quality data collection and analysis. Key indicators should include:

- Maturity of data governance structures and practices;
- Investments in staff capacity development for data management;
- Improvements in student outcomes informed by data use; and
- Enhanced visibility and impact of institutional research activities.

Monitoring and evaluation activities for all three levels are summarised in Table 3.

Table 3: Monitoring and evaluation activities of the harmonised guidelines at regional, national and institutional levels.

Regional Level	<ol style="list-style-type: none"> i. Annual assessment of the regional HEIMS. ii. Annual assessment of the regional data repository. iii. Collect annual data on the adoption and implementation of the guidelines at national levels across the region using standardised assessment frameworks. iv. Collect feedback from key stakeholders on the effectiveness and relevance of the
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	<p>guidelines and use the findings to update the guidelines and implementation strategies.</p> <ul style="list-style-type: none"> v. Biennial regional progress reports on implementation of the guidelines highlighting achievements, challenges, and lessons learnt vi. Independent external evaluation every five years.
<p>National Level</p>	<ul style="list-style-type: none"> i. Develop national-level KPIs aligned with national policies and the guidelines. ii. Annual data collection and feedback from HEIs nationally. iii. Use findings and feedback for continuous improvement and to inform policy development at national level. iv. Annual national progress reports highlighting achievements, challenges, and lessons learnt. v. National data quality audits conducted by independent assessors.
<p>Institutional Level</p>	<ul style="list-style-type: none"> i. Develop institutional level KPIs aligned with national policies and guidelines, as well as institutional framework with clear baseline data and improvement targets. ii. Internal monitoring mechanism to support continuous collection of up-to-date data in the institution. iii. Staff, student and stakeholders feedback on institutional data management. iv. Use findings and feedback for continuous improvement at institutional level with documented action plans and implementation tracking. v. Prepare annual institutional data reports.

	<ul style="list-style-type: none"> vi. Prepare annual self-assessment using institutional maturity models. vii. Conduct peer to peer learning exchanges with other institutions for best practice sharing.
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12.0 Conclusion and Implementation Roadmap

The successful implementation of these guidelines requires sustained commitment from all stakeholders, strategic resource mobilisation, and adaptive management practices. The enhanced framework offers a comprehensive foundation for transforming higher education data governance in East Africa, aligning with international best practices and regional development priorities.

Key success factors

- i. **Political Commitment:** Strong commitment and oversight from governments and institutional leaders to drive adoption and accountability.
- ii. **Stakeholder engagement:** An inclusive and collaborative implementation approach that involves higher education institutions, national bodies, and regional organisations.
- iii. **Technical excellence:** Deployment of robust infrastructure, interoperable systems, and quality assurance mechanisms to ensure data reliability and usability.
- iv. **Capacity building:** Ongoing training and professional development programmes to strengthen human capital and institutional capabilities.
- v. **Financial sustainability:** Diversified and sustainable funding strategies, supported by cost-effective implementation models.
- vi. **Continuous improvement:** An adaptive, learning-oriented approach that embraces feedback, innovation, and regular policy and process reviews.

These guidelines represent a critical step towards establishing a unified, efficient, and effective higher education data ecosystem. They are

designed to support evidence-based decision-making, enhance institutional performance, strengthen regional cooperation, and contribute meaningfully to national and regional development goals.

Success of these guidelines will be measured not only through technical milestones, but also by the positive impact on teaching and learning, research and innovation, and the broader role of higher education in advancing regional development and global competitiveness.

Annex 1: Data Dictionary Template

Data Dictionary – Standardised Definitions

A data dictionary is a critical tool for ensuring the consistency, accuracy, and reliability of data across institutions. It provides standardised definitions and descriptions of data elements, enabling all stakeholders to share a common understanding of what each data point represents.

This shared understanding is essential for effective data collection, analysis, reporting, and decision-making, especially in collaborative or multi-institutional environments such as those involving HEIs in the EAC.

Below is a list of definitions for various data elements. It is important to identify and clearly document any inter-country or institutional variations in these definitions to promote consistency and accuracy in the collection, interpretation, and use of data across the region.

A well-maintained and universally adopted data dictionary not only facilitates comparability but also supports data-driven planning, policymaking, and quality assurance across higher education systems in the East African Community.

1. Student Definitions

- **Enrolled Student:** Individual duly registered for credit-bearing courses within a recognised/accredited higher education institution.
- **Active Student:** Student who has demonstrated academic activity (attendance, assessment submission, fee payment) within the academic period.
- **Inactive Student:** Student who is enrolled but has not participated in academic activities for the current reporting period.
- **New Entrant:** Student enrolling in a programme for the first time at any level in a recognised/accredited higher education programme.
- **Continuing Student:** Student who was enrolled in the previous academic year and continues in the same year or advanced level.
- **East African Students:** Students who hold citizenship in an EAC Partner State other than their country of study.
- **International Student:** Student whose citizenship differs from the country of study.

- **First-generation student:** a student whose parents or siblings have not completed a university-level undergraduate degree.

2. Counting Methodologies

- **Headcount:** Simple count of individual students (1 student = 1 count, regardless of study load).
- **Full-Time Equivalent (FTE):** Weighted count based on academic load: Full-time = 1.0 FTE and/or Part-time = 0.5 FTE (or proportional based on credit hours).
- **Annualised FTE:** Average FTE calculated across the full academic year.
- **Credit** is a measurement unit for notional or average learning time. The notional learning time includes all the activities, which a learner is expected to undertake in order to achieve the designated learning outcome (East African Qualifications Framework for Higher Education (EAQFHE), 2015).

3. Qualification Levels (EAQFHE, 2015)

- **Certificate (EAQFHE Level 5):** Post Secondary training qualification (typically 0.5 -1 year, minimum 80 credits).
- **Diploma (EAQFHE Level 6):** TVET /Higher education qualification (typically 1-2 years, minimum 120 credits).
- **Advanced Diploma (EAQFHE Level 6):** TVET/Higher education qualification (typically 1.5 - 2 years, minimum 300 credits).
- **Professional Diploma (EAQFHE Level 6):** Specialised Professional qualification (typically 1-2 years, minimum 240 credits).
- **Bachelor's Degree (EAQFHE Level 6):** First university degree (typically 3-4 years, minimum 360 credits).
- **Post Graduate Certificate (EAQFHE Level 7):** Post first degree qualification (typically 0.5 -1 year, 60 credits).
- **Post Graduate Diploma (EAQFHE Level 7):** Post-first-degree qualification (typically 1 – 2 year, minimum 120 credits).
- **Master's Degree (EAQFHE Level 7):** Second cycle degree (typically 1-2 years, minimum 180 credits).

- **PhD/ Doctoral Degree (EAQFHE Level 8):** Third cycle degree (typically 3-5 years, minimum 540 credits).
- **Post Doctoral (EAQFHE Level 8):** Recent graduates who have completed doctoral studies may undertake additional study and research. Minimum credit not specified.

4. Staff Classifications and Counting Methods

a. Academic Staff Definitions

Academic Staff: Personnel with teaching and/or research responsibilities holding formal academic appointments:

- **Professor:** Highest academic rank with substantial research and leadership responsibilities.
- **Associate Professor:** Senior academic with established research record and significant teaching experience.
- **Senior Lecturer:** Experienced academic with teaching and research responsibilities.
- **Lecturer:** Academic staff member with primary teaching responsibilities and developing research profile.
- **Assistant Lecturer:** Entry-level academic position, typically pursuing advanced qualifications.

b. Specialised Academic Staff

- **Research-only Staff:** Personnel with research responsibilities but no formal teaching obligations.
- **Clinical Academic Staff:** Medical/health faculty with combined clinical and academic responsibilities.
- **Visiting Academic:** Temporary academic staff appointments (less than 12 months).

c. Administrative Staff Categories

- **Senior Management:** Vice-chancellors, deputy vice-chancellors, deans, directors.
- **Professional Support:** IT specialists, finance officers, student services, library professionals.

- **General Support:** Maintenance, security, clerical, and other operational staff.

d. Staff Counting Rules

- **Headcount:** Individual staff members regardless of employment terms.
- **FTE:** Weighted by employment fraction (full-time = 1.0, part-time = proportional to contracted hours).
- **Contract Classification:**
 - ✓ **Permanent:** Indefinite contract with institutional tenure.
 - ✓ **Contract:** Fixed-term appointment with specified duration.
 - ✓ **Adjunct:** Part-time teaching staff, typically industry professionals.

5. Programme and Qualification Classifications

a. Study Modes

- **Full-time:** Students engaged in study as their primary activity (typically 30+ credits per academic year).
- **Part-time:** Students studying whilst engaged in other significant activities (typically less than 75% of full-time load).
- **Distance Learning:** Programmes delivered remotely with minimal campus attendance.
- **Blended Learning:** Combination of face-to-face and online delivery methods.
- **Block Teaching:** Intensive delivery format with concentrated study periods.

b. Field of Study Classifications (Aligned with International Standard Classification of Education Fields of Education and Training, 2013 (ISCED 2013))

01: Education.

02: Arts and Humanities.

03: Social Sciences, Journalism and Information.

04: Business, Administration and Law.

05: Natural Sciences, Mathematics and Statistics.

06: Information and Communication Technologies.

07: Engineering, Manufacturing and Construction.

08: Agriculture, Forestry, Fisheries and Veterinary.

09: Health and Welfare.

10: Services.

6. Financial Classifications

a. Revenue Categories

- **Government Grant:** Direct public funding for institutional operations.
- **Tuition Fees:** Payments from students for educational services.
- **Research Income:** External funding for research activities.
- **Third Stream Income:** Revenue from consultancy, commercial activities, and services.
- **Investment Income:** Returns from institutional investments and endowments.

b. Expenditure Categories

- **Staff Costs:** Salaries, benefits, and employment-related expenses.
- **Operating Expenses:** Day-to-day running costs excluding staff.
- **Capital Expenditure:** Investment in infrastructure, equipment, and facilities.
- **Research Expenditure:** Direct costs of research activities.

7. Research Definitions

- **Researcher:** Staff member primarily engaged in the conception or creation of new knowledge through research.
- **Principal Investigator (PI):** Lead researcher responsible for project design, funding, and execution.
- **Research Assistant:** Staff or postgraduate student assisting in research activities under supervision.
- **Postdoctoral Fellow:** Early-career researcher engaged in advanced training and research.

- **Research Centre/Institute:** Formal organisational unit dedicated to a thematic or interdisciplinary research agenda.
- **Research Project:** Time-bound and funded investigation undertaken to produce new knowledge, methods, or solutions.

8. Research Output Types

- **Journal Article (Peer-Reviewed):** Published work in a scholarly journal following a peer-review process.
- **Book:** Monograph or edited volume published by an academic or professional publisher.
- **Book Chapter:** Contribution to a larger edited volume.
- **Conference Paper:** Research presented at a scholarly conference (published or not).
- **Technical Report:** Institutionally or externally commissioned report documenting research findings.
- **Thesis/Dissertation:** Formal academic research work required for postgraduate degrees.
- **Intellectual Property Assets:** Creations of mind that are legally protected, for example, patents, copyright and trademarks.



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