THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

NATIONAL FRAMEWORK FOR ACADEMIA-INDUSTRY COLLABORATION IN SKILLS DEVELOPMENT AND EMPLOYABILITY

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FOREWORD

Tanzania is advancing far-reaching education reforms to improve quality and relevance, including strengthened vocational and non-vocational pathways and the integration of practical learning at various levels. In this context, the Ministry of Education, Science and Technology remains committed to ensuring that education and training produce employable skills for a modern and competitive economy.

It is in this context that I am pleased to present *the National Framework for Academia–Industry Collaboration in Skills Development and Employability.* The framework represents the Government's practical response to bridging the long-standing gap between the classroom and the workplace, through stronger and more structured partnerships between academia and industry, aligned to the needs of priority sectors and focused on improving graduate employability.

Education is the cornerstone of Tanzania's industrialisation and socio-economic development. As we pursue our aspiration to become a semi-industrialised, middle-income nation, it has become clear that closer collaboration between the education sector and industry is not optional, it is imperative. Each year, our universities, colleges, and technical institutions produce large numbers of graduates; yet many face difficulties securing employment that corresponds with their training. At the same time, employers in key sectors continue to report challenges in sourcing graduates with the practical skills, workplace readiness, and experience required by today's jobs.

This Framework operationalises the high-level directive of H.E. President Samia Suluhu Hassan to *"launch a joint programme between employers and educational institutions to ensure training matches the needs of priority sectors such as energy, ICT, and value-added industries"*. In essence, it is intended to ensure that education and training provision aligns more closely with labour-market demand so that graduates acquire relevant skills and the economy gains the talent it requires.

The Framework sets out the Government's commitment to building strong, structured, and sustainable partnerships between academia and industry as a foundation for skills development, innovation, and inclusive economic transformation in Tanzania. It is grounded in extensive consultation and evidence, and aligned with key national policy directions, including Tanzania Development Vision 2050, the CCM Election Manifesto 2025–2030, Zanzibar Development Vision 2050 (ZDV 2050), FYDP III (2021/22–2025/26), and the Education and Training Policy of 2014 (2023 Edition). Developed through an inclusive and participatory process involving government institutions, education providers, the private sector, development partners, and youth, the Framework promotes shared ownership and sustained commitment to effective implementation.

The document begins with a clear diagnosis of the skills mismatch and a review of existing initiatives aimed at addressing it. It then sets out the overall goal and specific objectives

that guide the proposed response. At its core are six strategic pillars, which provide a coherent set of interventions ranging from curriculum reform and structured internship programmes to the establishment of effective coordination mechanisms. Importantly, the Framework assigns clear roles and responsibilities, ensuring that policy intentions are translated into practical results. A monitoring and evaluation system is embedded to track progress, alongside a risk management plan that anticipates potential challenges and outlines mitigation measures. Taken together, this is not merely a policy statement, but a concrete and actionable plan for implementation.

The success of this framework will depend on shared effort and coordinated action by all stakeholders. Government will provide strategic leadership, enabling policies, and the necessary resources. Education and training institutions must embrace reform and engage more deliberately with industry. Employers are called upon to open their workplaces to learners and invest actively in skills development. Development partners will play an important role through technical and financial support. Above all, our youth must seize the opportunities created by this framework to learn through practice, to innovate, and to prepare themselves as the next generation of Tanzanian professionals who will drive inclusive growth and national transformation.

Prof. Adolf F. Mkenda, MP

MINISTER

ACKNOWLEDGMENTS

The Ministry of Education, Science and Technology is pleased to present the National Framework for Academia-Industry Collaboration in Skills Development and Employability as a practical policy guide for strengthening alignment between education and training and the skills needs of Tanzania's economy. The framework responds to the growing demand for graduates who are equipped for employment, innovation, and productivity in priority sectors, and it sets out a clear national approach for deepening collaboration between education and training institutions and industry to improve skills relevance and graduate employability.

This framework was developed by the Ministry of Education, Science and Technology, in collaboration with stakeholders from relevant government institutions, academia, industry associations, and other partners. The development process was consultative and evidence based, drawing on stakeholder inputs, labour market information, and lessons from existing initiatives. This inclusive approach ensured that the Framework reflects Tanzania's context while remaining consistent with international good practice in skills development.

On behalf of the Ministry, sincere appreciation is extended to all individuals and institutions that contributed their time, expertise, and constructive feedback throughout the process. In particular, the Ministry expresses special gratitude to the Ministry of Education and Vocational Training, Zanzibar, for its valuable participation and continued collaboration. The Ministry also acknowledges and thanks all stakeholders from Zanzibar, including education and training institutions, industry actors, regulatory bodies, professional associations, and other partners, whose contributions helped to ensure that the framework reflects both Mainland Tanzania and Zanzibar realities and priorities.

The Ministry also acknowledges the continued cooperation of stakeholders who will play a central role in implementation, including government ministries and regulatory authorities, education and training providers, employers, industry bodies, and development partners. Their sustained engagement and shared responsibility will be essential to translating the framework into measurable improvements in skills development and graduate employability.

On behalf of the Ministry of Education, Science and Technology, I reaffirm the Ministry's commitment to ensuring that this Framework is implemented effectively and delivers results that contribute to Tanzania's transition towards an innovation-driven and inclusive economy.

Prof. Carolyne I. Nombo

PERMANENT SECRETARY

ACRONYMS AND ABBREVIATIONS

Acronym	Full Meaning
ATE	Association of Tanzania Employers
BBT–Amali	Building a Better Tomorrow – Amali Youth Employment Programme
CBE	Competency-Based Education
CCM	Chama Cha Mapinduzi
COSTECH	Commission for Science and Technology
CTI	Confederation of Tanzania Industries
ESDC	Education Sector Development Committee
FYDP III	Third Five-Year Development Plan (2021/22–2025/26)
GTS	Graduate Tracking System
IAC	Industry Advisory Committee
ICT	Information and Communication Technology
IP	Intellectual Property
LMIS	Labour Market Information System
M&E	Monitoring and Evaluation
MoEST	Ministry of Education, Science and Technology
MoEVT	Ministry of Education and Vocational Training
MoF	Ministry of Finance
MoU	Memorandum of Understanding
MTEF	Medium-Term Expenditure Framework

NACTVET	National Council for Technical and Vocational Education and Training
NBS	National Bureau of Statistics
NIDA	National Identification Authority
NITA	National Industrial Training Authority
NSC	National Skills Council
NSCC	National Skills Coordination Council
NSDS II	National Skills Development Strategy II (2026/27–2035/36)
NSSC	National Sector Skills Council
OJT	On-the-Job Training
PMO	Prime Minister's Office
PMO-RALG	Prime Minister's Office – Regional Administration and Local Government
PPP	Public–Private Partnership
RGoZ	Revolutionary Government of Zanzibar
SDL	Skills Development Levy
SME	Small and Medium-sized Enterprise
SMZ	Serikali ya Mapinduzi Zanzibar
SSC	Sector Skills Council
TDV 2050	Tanzania Development Vision 2050
TCU	Tanzania Commission for Universities
ToT	Training of Trainers
TPSF	Tanzania Private Sector Foundation

TRA	Tanzania Revenue Authority
TWG	Technical Working Group
URT	United Republic of Tanzania
VETA	Vocational Education and Training Authority
VTA	Vocational Training Authority

CHAPTER ONE

INTRODUCTION

1.1 Background

Tanzania is characterized by a young and rapidly growing labour force and aims to attain semi-industrialised, upper-middle-income status through sustained economic transformation (URT, 2025). Realising this ambition depends heavily on how effectively the education and training system prepares young people for productive employment. However, a persistent disconnection between education outcomes and labour market demands continue to constrain progress. Each year, more than 700,000 young people enter the labour force from different levels of education, while the pace of formal job creation remains too slow to absorb them (NBS, 2023; URT, 2024). As a result, fewer than one in ten graduates secure formal employment within one year of graduation (URT, 2024). Only about 18–19% of university graduates obtain employment immediately after completing their studies, with many others remaining unemployed or entering informal and low-productivity jobs that do not make effective use of their qualifications (URT, 2024).

These outcomes point to both a quantitative challenge of insufficient job creation relative to the number of graduates and a qualitative challenge arising from weak alignment between graduate skills and labour market needs. Similar conditions are observed in Zanzibar, where youth unemployment and underemployment remain high, and many technical and vocational graduates struggle to find jobs relevant to their training within the islands' economic structure (SMZ, 2023). National policy frameworks openly recognize these challenges. The Chama cha Mapinduzi (CCM) Election Manifesto 2025–2030 identifies youth unemployment as a critical concern and commits the Government to strengthening education–employment linkages, expanding skills development, and promoting science, technology and innovation as drivers of productivity and job creation (CCM, 2025).

National labour market and skills assessments further emphasize the urgency of systemic reform. The National Skills Development Strategy II (NSDS II, 2026/27–2035/36) reports an overall unemployment rate of 9.0% in 2022, with young people being the most affected group, while underemployment stood at 10.9% (URT, 2024). These figures apply to both Mainland Tanzania and Zanzibar, confirming that the challenge is national-wide in scope. At the same time, NSDS II documents rapid growth in education and training enrolment, including a 957% increase in vocational training enrolment between 1995 and 2022, and a 42.6% increase in university enrolment between 2017/18 and 2023/24, without a corresponding improvement in skills relevance or labour market absorption (URT, 2024). In Zanzibar, expansion of tertiary and technical education supported by an increase in VTA training centres has similarly not translated into satisfactory graduate employment outcomes (SMZ, 2023).

Policy reviews and labour market evidence point consistently to a persistent mismatch between graduate skills and employment needs in Tanzania. The revised Education and Training Policy of 2014 (2023 Edition), together with findings from NSDS II and employer feedback from both Mainland Tanzania and Zanzibar, highlight deficiencies in practical, technical, and transferable skills across key growth sectors calling for competency-based, labour-market-responsive curricula and stronger integration of theory and practice through closer industry collaboration (URT, 2023a; SMZ, 2023; URT, 2024). Employer surveys, including those by the Association of Tanzania Employers, reinforce these concerns by citing limited hands-on experience, weak communication and teamwork skills, and inadequate exposure to modern technologies as major constraints to productivity, particularly in fast-evolving technical sectors (ATE, 2024). From the graduates' perspective, this mismatch is reflected in prolonged school-to-work transitions, employment outside fields of training, and reliance on informal jobs, with tracer studies showing that many TVET graduates work in occupations unrelated to their qualifications, signaling inefficient use of human capital and resulting in both economic losses and diminished graduate earnings prospects (NACTVET, 2023).

Several interrelated structural and institutional weaknesses sustain the skills gap, notably theory-heavy curricula in higher education and TVET, limited practical and experiential learning, and weak, inconsistent industry engagement in curriculum design, which together result in outdated and poorly aligned training content. Rapid technological change driven by digitalisation, automation, and data-intensive processes has further widened this mismatch, while slow and inflexible curriculum review systems and the absence of institutionalised skills and foresight mechanisms prevent timely adaptation. These challenges are compounded by limited opportunities for structured work-based learning, such as internships and apprenticeships, which weaken school-to-work transitions and increase employers' reluctance to recruit new graduates, as well as fragmented coordination among ministries, regulators, training providers, employers and partners, leading to duplication and uneven coverage. Resource and infrastructure constraints within institutions, including inadequate laboratories and equipment, further undermine training quality. In Zanzibar the small scale of the economy and the dominance of informal employment intensify these pressures, often pushing graduates into self-employment or migration to mainland urban centres in search of work (World Bank, 2022).

These education and labour market challenges have direct implications for Tanzania's long-term development aspirations as articulated in Tanzania Development Vision 2050 (TDV 2050) and Zanzibar Development Vision 2050 (ZDV 2050). TDV 2050 emphasises that achieving upper-middle- and high-income status will require skilled, innovative and adaptable workforce capable of driving industrialisation, technological transformation and a knowledge-based economy (URT, 2023b). It highlights the need to strengthen linkages between education, research, innovation and productive sectors to

translate human capital investments into productivity and inclusive growth. Similarly, ZDV 2050 identifies human capital development as a central pillar for Zanzibar's socio-economic transformation and calls for a competitive, innovative and productive workforce to support inclusive development (SMZ, 2021). Both visions underline that, without addressing skills mismatches and strengthening industry–academia linkages, Tanzania risks failing to fully harness its demographic dividend. Collectively, evidence from national strategies, sector policies and labour market assessments provide a strong justification for coordinated interventions that align education and training with labour market demand, institutionalise collaboration between industry and academia, and improve employment outcomes for the country's growing youth population.

1.2 Policy, Legal and Institutional Alignment

The Framework is anchored in Tanzania's national development priorities and aligns closely with key policy instruments on both Tanzania Mainland and Zanzibar. It draws direction from the CCM Election Manifesto 2025–2030, TDV 2050, and ZDV 2050, all of which emphasize skills development, youth employment, and stronger linkages between education and the labour market. It promotes competency-based training, stronger industry engagement, and closer alignment between education provision and economic priorities, consistent with the Education and Training Policy 2014 (2023 Edition) and Zanzibar's education reform agenda. Legally and institutionally, the Framework builds on existing laws, policies, and coordination mechanisms rather than creating new ones. It operates within the mandates of the Education Act, Universities Act, Vocational Education and Training Act, and relevant labour legislation, while leveraging the roles of regulatory bodies such as National Council for Technical and Vocational Education (NACTVET), Vocational Education and Training Authority (VETA), and their Zanzibar counterparts.

1.3 Scope

This framework covers all post-secondary education and training institutions, including TVET centres, polytechnics, colleges, and universities, with selective linkage to upper-secondary vocational streams where relevant. The framework is prioritising key growth sectors such as manufacturing, agriculture, energy, Information, Communication and Technology (ICT), construction, tourism, health, and transport, while remaining flexible to include any sector with demonstrated demand and committed partners.

1.4 Objectives

1.4.1 Main Objective

The main objective of this framework is to establish and operationalize a sustainable national framework for partnership between the education or training system and the

productive industry sectors, to ensure that educational outcomes at all levels meet the evolving needs of the labour market and Tanzania's development objectives.

1.4.2 Specific Objectives

To achieve the above goal, the framework lays out several specific objectives, including to:

a) **Establish and operationalize a formal, multi-stakeholder coordination mechanism** that brings together government, industry, and academia to oversee and sustain industry–academia collaboration on skills development.

b) **Institutionalize and scale up structured work-based learning** by integrating internships, apprenticeships, and on-the-job training into education and training pathways. All students should have exposure to real work environments before graduation, through stronger internship programmes, apprenticeship schemes, and industrial attachments developed in partnership with employers.

c) **Strengthen structured and sustainable partnerships between education institutions and industry**, particularly at sector level, to support skills development, innovation, and employability.

d) **Develop an integrated national employment and skills information system** that captures graduate employment outcomes and labour market demand data in real time, enabling evidence-based planning, curriculum reform, career guidance, and informed workforce development decisions.

e) **Strengthen policy, regulatory, and financing frameworks** that institutionalize and sustain industry–academia collaboration. This includes aligning policies to support collaboration, adapting regulatory standards to require industry input in curricula and accreditation, and mobilizing financing to fund collaborative initiatives sustainably.

f) **Establish and enforce clear roles, responsibilities, and obligations** for government, industry, training institutions, and partners to ensure accountable, coordinated, and sustainable collaboration.

2.1 Policy Responses and Existing Initiatives

In response to persistent skills mismatches and limited absorption of graduates into productive employment, the Government of Tanzania has, over the past decade, implemented a broad set of policy, institutional, and programme reforms aimed at aligning education and training with labour market needs. These reforms are anchored in major national frameworks, notably the Education and Training Policy (ETP) of 2014 (2023 Edition), the National Skills Development Strategy (NSDS II, 2016/17–2025/26), and the Third National Five-Year Development Plan (FYDP III, 2021/22–2025/26). Collectively, these frameworks emphasise demand-driven skills development, competency-based education and training, and stronger private sector participation, signalling a strategic shift from a predominantly supply-led model towards a more labour-market-responsive skills system.

A central policy instrument within this reform agenda has been the establishment of Industry Advisory Committees (IACs) to institutionalize employer participation in higher education and TVET systems. By 2024, 33 national IACs had been established across priority economic sectors, including engineering, ICT, mining, agriculture value addition, and tourism. Through these committees, employers have been directly involved in defining occupational profiles, competency standards, and skills requirements, contributing to the review of 676 academic and technical programmes nationwide. Evidence suggests that IACs have been most effective where they are formally constituted, meet regularly, and operate under clear mandates supported by incentives and adequate resources, while weaker and more ad hoc arrangements have produced uneven outcomes across institutions.

As a direct outcome of strengthened industry engagement, curriculum reform has been undertaken at an unprecedented scale. By October 2025, the Higher Education for Economic Transformation (HEET) programme had supported the review or development of 778 academic programmes, comprising 490 revised curricula and 288 newly developed programmes. This represents one of the largest coordinated curriculum reform efforts in Tanzania's higher education system to date, aimed at improving labour market relevance and graduate employability. However, the effectiveness of these reforms varies significantly across institutions, with consistently stronger results observed where curriculum review processes are closely linked to active and sustained Industry Advisory Committees and broader employer engagement mechanisms.

Formal collaboration between education and training institutions and industry has also expanded through the signing of Memoranda of Understanding (MoUs). More than 250 MoUs have been concluded between universities, technical colleges, vocational

institutions, and private sector organisations to support internships, industrial attachments, joint research, staff exchanges, and guest lectures. For instance, the Vocational Education and Training Authority (VETA) has entered into approximately 50 MoUs with private firms to promote apprenticeships and workplace-based learning. Despite this quantitative growth, the qualitative impact of many MoUs remains limited due to weak monitoring arrangements, unclear performance targets, and insufficient incentives for sustained private sector engagement.

Work-based learning has been further promoted through internships, apprenticeships, and industrial attachments, including dual apprenticeship pilots implemented in at least 10 VETA centres, alongside nationally coordinated internship schemes. Although overall participation has increased in absolute terms, access remains constrained relative to demand. Recent evidence indicates that only 32–35 percent of TVET graduates have participated in structured workplace learning, and just 18 percent have received supervised, competency-based training within formal enterprises. Constraints are particularly acute in technology-intensive sectors such as manufacturing, ICT, and energy, where firms face high costs, limited training capacity, and supervision challenges.

To strengthen evidence-based planning and policy implementation, the Government has invested in labour market information systems. The development of a national Labour Market Information System (LMIS) and a Graduate Tracking System is intended to generate timely data on employment trends, skills demand, and graduate outcomes. Early findings suggest that more than 65 percent of employers report difficulties in recruiting suitably skilled workers, especially in construction, manufacturing, logistics, tourism, and emerging blue economy sectors. These findings underscore the persistence of skills mismatches despite the scale of ongoing reforms.

In parallel, targeted youth employment and skills initiatives have been implemented to support school-to-work transitions outside traditional degree pathways. Key initiatives include the Building a Better Tomorrow (BBT-Amali) programme and the establishment of teaching factories and centres of excellence under the EASTRIP programme at institutions such as Dar es Salaam Institute of Technology, the National Institute of Transport, Arusha Technical College (Kikuletwa Campus), and DIT Mwanza. These initiatives have expanded access to hands-on training in areas including ICT, aviation, hydropower, and leather processing, although their overall impact remains constrained by limited scale, geographic concentration, and weak integration with mainstream training and labour market systems.

Overall, Tanzania has made measurable progress in establishing policy frameworks and institutional mechanisms to address skills mismatches. Nonetheless, significant implementation challenges persist, including fragmented coordination, uneven institutional capacity, and limited depth of private sector engagement. Addressing these constraints

will require a more integrated and data-driven approach that strengthens accountability, deepens education–industry collaboration, and ensures that skills development translates into productive employment and inclusive economic growth.

2.2 Regional and International Experiences

Benchmarking international and regional experiences demonstrates that sustained, institutionalized collaboration between education providers and industry is achievable when supported by clear governance, predictable financing, and robust labour market intelligence. Across both East Africa and selected high-performing global systems, the most successful approaches combine, including (i) formal platforms for employer engagement in curriculum and standards, (ii) structured work-based learning (WBL) pathways, (iii) incentives that reduce employers' costs of hosting trainees, and (iv) data systems that continuously track skills demand and graduate outcomes (World Bank, 2024). Experiences have been drawn from different countries; including Kenya, Uganda, Rwanda, South Africa, Singapore and Germany.

2.2.1 Kenya

Kenya provides a relevant regional benchmark due to its long-standing institutional architecture for industrial training. The National Industrial Training Authority (NITA) administers core functions that include industrial attachment, curriculum development, standard assurance, and levy administration (NITA, n.d.). A key feature of the Kenyan model is the **industrial training levy**, which provides a predictable financing stream and supports industry engagement in skills development. Kenya's training system includes NITA-operated industrial training centres with capacity for **over 5,000 trainees**, complemented by a wider ecosystem of **400+ registered/accredited training providers** and **600+ accredited assessment centres** (UNESCO-UNEVOC, 2022). This structure illustrates the value of (i) dedicated institutions for industry-linked training governance, (ii) pooled financing for training, and (iii) quality assurance mechanisms that extend beyond individual institutions.

2.2.2 Uganda

Uganda's "Skilling Uganda" reform agenda provides an important lesson on the role of sector-based coordination. The approach emphasizes employer engagement through structured sector dialogue and the development of occupational standards linked to labour market needs (ILO, 2020). Implementation experience shows that **Sector Skills Councils** can be operationalised with action plans and stakeholder participation. For example, programme reporting associated with skills development support indicates that **five Sector Skills Councils** were established and operationalised in areas including tourism and hospitality, providing a platform for identifying priority skills and aligning training responses (Enabel, 2023). Uganda's experience reinforces that sector councils

are most effective when they are mandated, resourced, and linked to curriculum or standards systems and WBL arrangements.

2.2.3 Rwanda

Rwanda offers a strong benchmark for building a skills system that is explicitly tied to employment outcomes through results-based financing and strengthened public–private collaboration. Under the World Bank–supported Priority Skills for Growth (PSG) Programme-for-Results, Rwanda shifted from a supply-driven approach toward market-driven training aligned with labour market demand. As of 2025, the programme had supported **nearly 24,000 youth** to access job-relevant skills opportunities, with a strong emphasis on private sector linkages and employability outcomes (World Bank, 2025). Rwanda's PSG design also illustrates how development-linked indicators and performance monitoring can be used to strengthen governance, align institutions to labour market outcomes, and incentivise delivery of relevant training (World Bank, 2024).

2.2.4 South Africa

South Africa offers a relevant benchmark from a middle-income context with deep institutionalisation of skills governance through the **Sector Education and Training Authorities (SETAs)**. The SETAs operate under the **National Skills Development Strategy (NSDS)** and are responsible for sector-specific skills planning, accreditation of training providers, quality assurance, and administration of the **skills development levy**, which is collected from employers and reinvested in training through grants. South Africa's model emphasizes structured **learnerships, apprenticeships, and workplace-based learning**, particularly through Technical and Vocational Education and Training (TVET) colleges in partnership with industry. The levy-grant mechanism incentivises firms to participate actively in training while ensuring predictable financing for skills development. Despite persistent challenges in youth unemployment, the South African system demonstrates the value of (i) sector-based skills councils with statutory authority, (ii) levy-financed training funds linked to employer participation, and (iii) nationally coordinated quality assurance and certification frameworks that extend beyond individual institutions. These features offer important lessons for Tanzania in designing scalable, financially sustainable, and industry-led collaboration mechanisms.

2.2.5 Singapore

High-performing systems demonstrate the value of integrated, user-facing national platforms that connect learners, employers, and training providers. Singapore's SkillsFuture ecosystem provides a national framework for continuous skills upgrading, linked to employment services and job matching through government-supported portals (SkillsFuture Singapore, n.d.). Such platforms support (i) visibility of training opportunities, (ii) guidance and signalling on priority skills, and (iii) linkage to employment opportunities and career

services. This experience is directly relevant to Tanzania's planned LMIS and graduate tracking systems under Pillar 5, particularly in establishing a single trusted channel for labour market information, internships, and employer contributions to training.

2.2.6 Germany

Germany represents a global benchmark in industry–academia collaboration through its well-institutionalised **Dual Vocational Training System**, which integrates formal education with structured workplace training. Under this model, vocational learners divide their time between vocational schools and paid apprenticeships within companies over a period of two to three years. More than **1.3 million apprentices** are enrolled annually, supported by approximately **430,000 firms**, making the system both large-scale and sustainable. A defining feature of the German model is the **central role of industry chambers and employer associations**, which co-develop national occupational standards, curricula, and assessment frameworks, and jointly conduct final examinations with training institutions. This ensures strong labor-market relevance and national recognition of qualifications. The system is underpinned by clear legal frameworks that define apprenticeships, shared financing responsibilities between government and employers, and strong societal recognition of vocational careers. The German experience highlights the effectiveness of (i) legally embedded dual training arrangements, (ii) strong employer leadership in curriculum design and certification, and (iii) shared public–private responsibility for financing and governance of skills development.

2.2.7 Consolidated Lessons for the United Republic of Tanzania

Taken together, the benchmarking evidence points to a consistent set of design lessons for Tanzania's national framework. First, **institutionalized governance mechanisms** including national and sector coordination bodies are essential for sustaining employer engagement beyond ad hoc partnerships (ILO, 2020). Second, **predictable financing** (for example, levy-based or performance-linked financing models) helps reduce employers' participation costs and strengthens sustainability (UNESCO-UNEVOC, 2022; World Bank, 2024). Third, **structured WBL systems** require clear roles, supervision standards, and incentives for employers; without these, placements remain limited and variable in quality. Fourth, **data systems** (LMIS and graduate tracking) must be operational, used routinely in decision-making, and linked to programme management so that admission planning, curriculum reform, and investment decisions respond to labour market evidence (World Bank, 2024).

For Zanzibar, where the labour market is smaller and private sector absorption capacity is more constrained, the benchmarking lessons are particularly relevant: the focus should be on (i) targeted sector prioritisation (e.g., tourism, construction, logistics, and blue economy value chains), (ii) structured partnerships with anchor employers and industry associations, and (iii) strong monitoring to ensure MoUs and WBL placements translate

into measurable outcomes. These lessons inform this Framework's emphasis on activating partnerships, scaling quality work-based learning, and operationalising labour market intelligence to guide skills investments.

2.3 Rationale

Tanzania continues to face the challenge of mismatch between the skills produced by education and training institutions and those required by the labour market. Although enrolment in TVET and higher education has increased, many graduates remain unemployed or underemployed due to theory-oriented curricula, limited practical and work-based learning, weak industry engagement, and slow adaptation to technological change. These challenges are clearly recognised in TDV 2050, ZDV 2050, and the Five Year Development Plan III (FYDP III), which call for demand-driven skills development and stronger collaboration between education institutions and industry to support industrialisation and inclusive growth. Recent speeches by President Samia Suluhu Hassan and commitments in the CCM election manifesto further emphasise the shift toward skills and competency-based training, expanded internships and apprenticeships, and closer alignment between training institutions and productive sectors.

International experience shows that skills mismatches are best addressed through coherent national systems rather than fragmented initiatives. Countries such as South Africa and Germany have established structured, sector-based and dual-training models that link employers, training institutions, and government, while Kenya, Uganda, and Rwanda have strengthened competency-based training, industrial attachments, and labour market intelligence aligned to priority sectors. Singapore provides a global benchmark for an integrated, whole-of-government approach in which employers actively shape curricula and are accountable for skills outcomes. These lessons highlight the need for Tanzania to adopt a coherent National Framework for Academia–Industry Collaboration in Skills Development and Employability to institutionalize collaboration, align training with labour market demand, and strengthen accountability for employability outcomes in support of national industrialization and socio-economic transformation.

CHAPTER THREE

STRATEGIC PILLARS AND INTERVENTION AREAS

3.1 Overview of the Strategic Pillars

The framework has **six interrelated strategic pillars**. These pillars collectively address systemic weaknesses in the education-to-employment ecosystem and provide a coherent structure for coordinated intervention across policies, institutions, and industry. The six strategic pillars are:

1. **Governance and Coordination Mechanisms**
2. **Curriculum Relevance and Skills Alignment**
3. **Work-Based Learning and Skills Development Programmes**
4. **Industry Partnerships, Research and Innovation Linkages**
5. **Information Systems and Data-Driven Decision-Making**
6. **Policy Support, Financing, and Sustainability Measures**

3.2 Pillar 1: Governance and Coordination Mechanisms

3.2.1 Rationale

Tanzania's skills development system has long been constrained by fragmented governance and weak coordination across institutions responsible for education, training, employment, and industrial development. Responsibilities are dispersed among multiple ministries, agencies, and stakeholders at both Mainland and Zanzibar levels, often resulting in duplication, inefficiencies, and limited alignment between education supply and labour market demand. The absence of a unified national platform signals that academia, industry, and government actors rarely engage in structured, strategic dialogue, while promising initiatives such as sector skills councils, internships, and industry partnerships have remained fragmented and difficult to scale. This fragmentation has further limited the ability to translate industry feedback into timely curriculum reform and coherent skills development policies.

To address these gaps, the Framework emphasizes the establishment of a strong, centralised governance and coordination mechanism that brings together all key actors under a shared national vision. Anchored within MoEST and working closely with MoEVT, this mechanism would align ministries, regulators, private sector actors, and development partners under a single strategic platform. It is expected that providing clear roles, accountability structures, and coordination processes, would enable coherent planning, efficient resource use, and systematic monitoring of skills development initiatives.

3.2.2 Strategic Directions

Under this pillar, the Framework will pursue the following strategic directions:

i. **Establish a National Skills Coordination Council (NSCC) as an apex public–private governance body under the Ministry responsible for Education, Science and Technology**, providing strategic leadership and oversight for nationwide industry–academia collaboration while serving as the highest-level platform for aligning education and training systems with labour market demand, industrialisation priorities, and workforce transformation objectives.

ii. **Formalise and empower an Inter-Ministerial Skills Steering Committee (IMSSC) composed of Permanent Secretaries or Directors from key ministries and agencies in both Mainland Tanzania and Zanzibar**, functioning as the government coordination mechanism that feeds into the NSCC to resolve inter-ministerial issues and translate multi-stakeholder dialogue into coherent, implementable public-sector actions.

iii. **Formalise and strengthen Sector Skills Councils (SSCs) in priority economic sectors including agriculture, manufacturing, ICT, energy, mining, construction, health, and tourism**, by building on existing pilots and progressively rolling out SSCs in additional sectors facing significant skills gaps in order to anchor sector-led skills planning and industry engagement.

iv. **Establish a permanent Technical Secretariat within the Ministry responsible for Education, Science and Technology**, tasked with providing sustained coordination, technical backstopping, and day-to-day implementation support for the Framework's programmes, partnerships, and monitoring activities.

v. **Establish Thematic Technical Working Groups (TWGs) under the NSCC and the Inter-Ministerial Steering Committee**, comprising experts from government, academia, industry, and development partners to deliver task-oriented technical analysis, evidence generation, and coordinated support for effective and coherent implementation.

vi. **Ensure strong vertical and horizontal coordination across government**, by linking national policy formulation with sectoral, regional, and local-levels implementation so that subnational governance structures such as Regional Secretariat education committees and District-level public–private forums are informed, aligned, and actively engaged in delivering the Framework's objectives.

3.2.3 Expected Outcomes

i. Improved coherence and alignment of skills development initiatives across sectors, and between Mainland and Zanzibar. Redundant or contradictory efforts will

be minimized, and stakeholders will operate from the same playbook, reducing fragmentation.

ii. Faster translation of labour market needs into education and training reforms. With structured forums and clear processes, feedback from industry (e.g., urgent need for a new skill programme or update of a curriculum) can be acted upon more quickly than before.

iii. Enhanced accountability and shared ownership among public and private stakeholders. All parties will know who is responsible for what, and regular meetings and reporting will create peer accountability.

iv. Sustainable, institutionalised collaboration mechanisms embedded within the national skills development system. Instead of project-based or one-off collaborations, Tanzania will have permanent institutions (NSCC, SSCs, etc.) that ensure ongoing dialogue and partnership.

3.3 Pillar 2: Curriculum Relevance and Skills Alignment

3.3.1 Rationale

Evidence from tracer studies, employer surveys, and national labour market assessments consistently points to **misalignment between curricula and labour market needs**. Many academic and training programmes remain overly theoretical, outdated, or insufficiently responsive to technological change and evolving industry practices. Employers frequently cite gaps in practical skills, digital competencies, problem-solving abilities, and workplace readiness.

Although regulatory bodies mandate periodic curriculum review, industry participation in curriculum design and evaluation remains inconsistent. Furthermore, rapid changes in priority sectors such as digitalisation, green technologies, agribusiness value chains, and advanced manufacturing require more agile and competency-based curriculum frameworks. Addressing curriculum relevance is central to ensuring that graduates possess both **technical competencies** and **transferable skills** needed for employability, productivity and career mobility.

3.3.2 Strategic Directions

The Framework will support curriculum transformation through the following policy directions:

i. **Institutionalize industry participation in curriculum development, review, and accreditation processes,** by making the involvement of representatives from relevant industries a standard requirement in curriculum review panels, accreditation evaluation teams, and academic boards whenever programmes are designed, revised, or evaluated.

ii. **Promote competency-based and outcomes-oriented curricula across TVET and higher education,** ensuring that programme design, delivery, and assessment are explicitly aligned with clearly defined competencies, learning outcomes, and occupational requirements rather than solely content coverage.

iii. **Strengthen outcomes-oriented curricula that blend theoretical knowledge with practical skills development across TVET and higher education,** so that graduates acquire both strong disciplinary foundations and the applied skills required for effective performance in real workplace and professional contexts.

iv. **Integrate cross-cutting skills such as digital literacy, entrepreneurship, communication, ethics, and problem-solving into all programmes,** in order to equip graduates with transferable competencies that enhance adaptability, employability, and responsible professional practice across diverse sectors.

v. **Encourage modular and flexible curriculum structures that allow rapid updating in response to technological and sectoral change,** by adopting modular approaches that enable individual modules to be revised, replaced, or introduced without requiring comprehensive programme overhaul or prolonged approval processes.

vi. **Align national qualification frameworks and occupational standards with emerging skills needs,** ensuring coherence between education and training programmes, labour market requirements, and evolving national priorities in technology, industry, and socio-economic development.

3.3.3 Expected Outcomes

i. Curricula that are responsive to current and future labour market demands.

ii. Graduates equipped with relevant technical, digital, and soft skills.

iii. Reduced skills mismatch and improved employability outcomes.

iv. Stronger confidence among employers in the quality and relevance of graduates.

3.4 Pillar 3: Work-Based Learning and Skills Development Programmes

3.4.1 Rationale

Limited exposure to real work environments remains a major contributor to graduate unemployability in Tanzania. Although many students complete their studies with solid theoretical foundations, they often graduate with little practical experience, leaving them inadequately prepared for the realities of the workplace. The limited and weakly structured integration of Work-Based Learning (WBL) including internships, apprenticeships, and

industry placements has resulted in graduates who lack hands-on skills, professional confidence, and familiarity with workplace norms and expectations. Existing initiatives such as field attachments and vocational apprenticeships provide some opportunities for practical learning, but their implementation is frequently uneven, poorly coordinated, and restricted in scale. Consequently, employers are often compelled to invest significant resources in retraining new graduates, while graduates themselves face difficulties in making a smooth transition from education to employment. Situational analysis from Tanzania and international experience consistently shows that well-designed and structured WBL programmes substantially improve employability by exposing learners to real tasks, workplace cultures, and employer expectations.

Strengthening and expanding WBL is therefore critical in resolving the gap between education and employment. Achieving this will require deliberate policy commitment, deeper and more systematic partnerships with industry, and practical mechanisms to support and incentivize employers who host and mentor trainees.

3.4.2 Strategic Directions

This pillar prioritizes the expansion and institutionalization of WBL through:

i. **Mainstream mandatory, credit-bearing Work-Based Learning (WBL) components across all academic programmes,** thereby institutionalising experiential learning as a formal and assessable element of curricula that contributes directly to academic progression, graduation requirements, and the systematic development of workplace-relevant competencies for students across all disciplines.

ii. **Expanding of national internship and apprenticeship schemes in partnership with industry,** with the aim of increasing the scale, diversity, and quality of student placements while strengthening structured collaboration between higher education institutions and public and private sector employers to ensure curricula remain responsive to evolving labour-market demands and occupational standards.

iii. **Developing national guidelines and quality standards for Work-Based Learning (WBL) implementation,** in order to harmonise programme design, placement duration, supervision arrangements, and learning outcomes across institutions while safeguarding academic integrity, ensuring consistency and comparability of WBL experiences, and strengthening quality assurance and regulatory oversight.

iv. **Incentivising employers to host trainees through recognition, cost-sharing mechanisms, and policy support,** so as to reduce financial and administrative barriers for host organisations, expand the availability of quality WBL placements, and reinforce sustainable and mutually beneficial industry–academia collaboration at national level.

v. **Strengthening supervision, mentoring, and assessment of Work-Based Learning (WBL) experiences,** by clearly defining the roles of academic supervisors and workplace mentors and embedding robust, competency-based assessment mechanisms that ensure workplace learning is effectively monitored, validated, and integrated into institutional teaching, learning, and quality assurance systems.

3.4.3 Expected Outcomes

i. Increased proportion of students completing structured WBL before graduation.

ii. Improved job readiness and practical competence among graduates.

iii. Stronger industry confidence in hiring local graduates.

iv. Shorter school-to-work transition periods.

3.5 Pillar 4: Industry Partnerships, Research and Innovation Linkages

3.5.1 Rationale

Despite the expansion of higher education and research capacity in Tanzania, collaboration between academia and industry remains limited, constraining the country's ability to translate knowledge into innovation and economic value. Research activities are often disconnected from industrial needs, with low private-sector investment in R&D and minimal commercialisation of academic outputs. Universities produce substantial research, yet much of it remains unused due to weak linkages, limited technology transfer mechanisms, and insufficient incentives for collaboration. While a few promising initiatives exist such as innovation hubs, incubators, and applied research projects their scale and impact remain modest.

Strengthening industry–academia collaboration is therefore essential for driving innovation, productivity, and inclusive economic growth. Effective linkages would enable universities to contribute directly to industrial competitiveness through applied research, technology transfer, and skills development, while providing students with practical learning opportunities and pathways into employment or entrepreneurship. Achieving this requires deliberate policy support, incentives for joint research and commercialisation, stronger intellectual property frameworks, and platforms that connect researchers, firms, and government actors.

3.5.2 Strategic Directions

The framework will promote stronger partnerships through:

i. **Joint research and innovation projects that address industry challenges,** by establishing dedicated funding mechanisms, collaborative platforms, and co-creation models that enable academia and industry to jointly develop practical, scalable, and market-relevant solutions.

ii. **Innovation hubs, incubators, and teaching factories,** through targeted support to universities and TVET institutions to create Innovation and Entrepreneurship Centres where students and faculty can develop prototypes, business ideas, and startups under structured industry mentorship.

iii. **Staff and student mobility between academia and industry,** in order to facilitate knowledge exchange, enhance practical exposure, and strengthen mutual understanding of research, skills, and innovation needs across the education–industry interface.

iv. **Intellectual property management and technology transfer systems,** so as to protect research outputs, support commercialisation, and ensure that innovations generated within institutions are effectively transferred to industry and the wider economy.

v. **Research funding mechanisms with national industrial priorities,** ensuring that public and partner-funded research investments are strategically directed toward priority sectors, value chains, and technologies that support industrialisation, productivity, and economic transformation.

3.5.3 Expected Outcomes

i. Increased applied research and innovation outputs relevant to industry.

ii. Enhanced entrepreneurial skills and innovation capacity among students and staff.

iii. Improved technology transfer and commercialisation of research.

iv. Stronger contribution of higher education to national industrial development.

3.6 Pillar 5: Information Systems and Data-Driven Decision-Making

3.6.1 Rationale

Effective skills planning requires accurate, timely, and integrated data on labour market trends, graduate outcomes, and industry demand. Currently, data systems related to education, employment, and skills are fragmented, limiting evidence-based decision-making. Without reliable labour market intelligence, training institutions struggle to adjust enrolments and curricula, students lack guidance on career pathways, and policymakers face challenges in evaluating programme effectiveness.

3.6.2 Strategic Directions

This pillar focuses on strengthening data ecosystems through:

i. **Developing an integrated Labour Market Information System (LMIS),** that aggregates, harmonises, and disseminates timely data on employment, unemployment, job vacancies, and skills demand and supply in order to support

informed decision-making by policymakers, education providers, employers, and job seekers.

ii. **Establishing a national graduate tracking and tracer study system,** designed to systematically monitor graduates' employment outcomes, career trajectories, and skills utilisation across institutions and disciplines so as to assess the relevance and effectiveness of education and training programmes.

iii. **Conducting regular employer surveys to assess skills demand and satisfaction,** with the purpose of generating consistent feedback on graduate performance, emerging occupational needs, and employer expectations to inform curriculum review and workforce planning.

iv. **Strengthening institutional data management and reporting capacity,** by enhancing systems, skills, and governance structures for collecting, analysing, and reporting education and labour-market data in a timely, accurate, and standardised manner.

v. **Utilising data analytics to inform policy reforms, funding allocations, and programme design,** ensuring that evidence from LMIS, graduate tracking, and employer surveys is systematically translated into responsive policies, targeted investments, and labour-market-aligned education and training programmes.

3.6.3 Expected Outcomes

i. Improved evidence-based planning and policymaking. Decision makers at all levels will have access to reliable data and analysis, leading to policies and plans that are grounded in reality rather than anecdote.

ii. Better alignment between education supply and labour market demand.

iii. Enhanced career guidance for learners.

iv. Stronger accountability through transparent performance monitoring.

3.7 Pillar 6: Policy Support, Financing And Sustainability Measures

3.7.1 Rationale

Sustaining effective academia–industry collaboration requires a strong policy and financing foundation that embeds such partnerships into the core governance and funding systems of education and training. Past initiatives in Tanzania have often struggled because they relied on short-term donor funding, lacked legal anchoring, or were not integrated into national planning and budgeting frameworks. Pillar 6 therefore emphasizes the need to align education, labour, industrial, and innovation policies so that collaboration becomes a routine and supported function of the system. This includes ensuring policy coherence across sectors, removing regulatory barriers that hinder industry engagement,

and establishing clear institutional mandates such as formal coordination structures and standards that make collaboration an expected and enforceable practice rather than an ad hoc activity.

Equally important is securing sustainable financing for collaboration initiatives. While development partners have played a valuable role, long-term impact requires predictable domestic funding through government budgets, sector levies (such as the Skills Development Levy), and private-sector co-investment. Integrating these initiatives into national planning instruments, such as the Medium-Term Expenditure Framework and sector budgets, helps ensure continuity beyond project cycles.

3.7.2 Strategic Directions

Key policy directions include:

i. **Integrating industry–academia collaboration into national education and skills policies,** so as to institutionalise structured engagement between education providers and industry actors in curriculum design, delivery, assessment, and research in support of labour-market relevance and innovation.

ii. **Aligning regulatory frameworks for incentivising partnerships and innovation,** by reviewing and harmonising education, training, and innovation regulations to remove barriers and introduce incentives that encourage collaborative programmes, joint research, and co-investment between institutions and industry.

iii. **Establishing sustainable financing mechanisms, including public–private cost-sharing,** in order to diversify funding sources for skills development, reduce overreliance on public financing, and promote shared responsibility for workforce development outcomes.

iv. **Strategically leveraging skills development levies and development partner support,** ensuring that available resources are coordinated, targeted, and aligned with national priority sectors, skills gaps, and scalable industry–academia collaboration initiatives.

v. **Embedding collaboration indicators into institutional performance and accountability systems,** so that engagement with industry, quality of partnerships, and graduate employability outcomes are systematically measured, reported, and used to inform institutional planning, funding, and performance evaluation.

3.7.3 Expected Outcomes

i. Long-term sustainability of collaboration initiatives.

ii. Reduced reliance on ad hoc or donor-driven interventions.

iii. Strong institutional ownership across government and education systems.

iv. Resilience of skills development reforms beyond political and programme cycles.

CHAPTER FOUR

GOVERNANCE, INSTITUTIONAL AND COORDINATION ARRANGEMENTS

4.1 Overview of Governance Architecture

Effective implementation of the National Framework for Academia-Industry Collaboration in Skills Development and Employability requires a clear, robust, and accountable **governance architecture**. This Chapter sets out the institutional arrangements, leadership structures, coordination mechanisms, and role delineations necessary to translate the policy intentions of the Framework into sustained action on the ground. The governance model is designed to:

a) **Ensure strong policy leadership** by MoEST on the Mainland and close coordination with MoEVT in Zanzibar, thereby providing unified strategic direction across the Union;

b) **Facilitate inter-ministerial and public–private coordination**, bringing together the many government agencies and non-state actors involved in skills development;

c) **Empower regulatory authorities and education institutions** to operationalise reforms, by clarifying their responsibilities and creating platforms for input and feedback; and

d) **Embed accountability, transparency, and results-oriented management** across the system, through regular reporting and monitoring mechanisms.

The arrangements outlined here align with Tanzania's public-sector governance principles, existing education sector coordination structures, and national planning and budgeting frameworks. They also incorporate representation from Zanzibar's relevant ministries and bodies to ensure this truly functions as a national framework without duplication or gaps between Mainland and Island initiatives as illustrated in Figure 1 which provide an overview of the governance structure for the Framework, illustrating the key bodies and their inter-relationships:

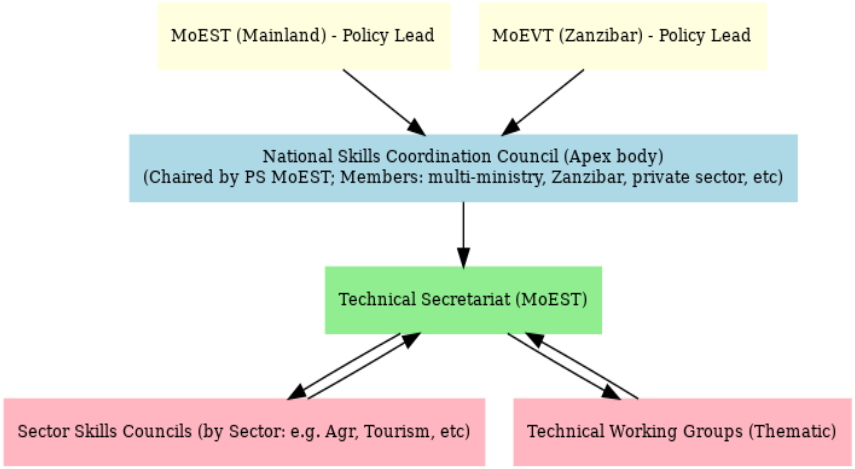

Figure 1: *Governance Structure for the Academia-Industry Collaboration Framework*

As shown in Figure 1, the apex of the governance structure is the **National Skills Coordination Council (NSCC)**, which sits under the overall policy oversight of MoEST in collaboration with MoEVT. The NSCC is supported by an Inter-Ministerial Steering Committee (not shown separately in the diagram for simplicity) and a dedicated Technical Secretariat housed in MoEST. Sector Skills Councils (SSCs) and Technical Working Groups (TWGs) operate beneath the NSCC to address sector-specific and thematic issues respectively, coordinated by the Secretariat. These bodies engage with and guide implementation at the institutional level (education and training providers) and the enterprise level (employers), creating a cohesive network from top-level strategy to grassroots execution. The diagram also indicates the two-way flow of information and accountability: institutions and employers provide data and feedback upward (e.g., through SSCs, Secretariat reports), while strategic guidance, policies, and resources flow downward from NSCC and government to the implementers.

With this overview in mind, the roles and responsibilities of each major stakeholder group or governance body in the framework is detailed.

4.2 Ministry of Education, Science and Technology

4.2.1 Policy Leadership Role of MoEST

MoEST serves as the lead institution and custodian of the National Framework on behalf of the Government of the United Republic of Tanzania. In this role, MoEST provides strategic direction, policy coherence, and oversight to ensure alignment between education or training systems and national economic priorities. Concretely, MoEST's leadership responsibilities include:

i. **Setting the overall policy vision and strategic priorities** for industry–academia collaboration, in line with national development goals. This involves integrating Framework objectives into education sector plans, articulating targets and championing the agenda in high-level forums.

ii. **Ensuring alignment of the Framework with national development strategies** including Tanzania Development Vision 2050, Five-Year Development Plans (FYDP), and sectoral policies.

iii. **Issuing policy directives, guidelines, and standards** to operationalise the Framework. For instance, MoEST might issue a circular making internships mandatory in tertiary curricula, or guidelines for establishing Industry Liaison Units at colleges. These directives enforce policy to various Framework components.

iv. **Mobilizing and coordinating resources for implementation** through government budgets and partnerships. This includes working with the Ministry of Finance (MoF) to allocate funds (e.g., via the Skills Development Fund or specific budget lines),

coordinating donor support (to avoid duplication and fill gaps), and engaging the private sector for co-funding or in-kind support.

v. **Monitoring and reporting on implementation progress at national level**. While the Secretariat will compile data, MoEST is responsible for ensuring regular progress reports are produced and for reporting to higher authorities including Cabinet, Parliament, and the public on achievements and challenges.

Furthermore, MoEST hosts the **Technical Secretariat** of the Framework (described later in this document), embedding this coordination unit within the Directorate of Higher Education to ensure sustainability and government ownership. The MoEST's leadership also entails working collaboratively with Zanzibar authorities. MoEST will coordinate closely with MoEVT to harmonize approaches, share data, and co-plan on union matters.

4.2.2 Ministerial and Senior Management Oversight

Oversight of the Framework within MoEST will be exercised through its senior management structures, notably the **Ministerial Management Team (MMT)** and related committees. Key points:

i. **The Minister and Permanent Secretary of MoEST** will receive regular briefings on Framework progress. These briefings will cover implementation status, any high-level issues needing attention, and inter-ministerial matters. This keeps the political and administrative leadership engaged, maintaining high-level commitment.

ii. **MoEST** will ensure the Framework is integrated into existing sector coordination mechanisms such as the **Education Sector Development Committee (ESDC)** and sub-sector working groups.

iii. **Coordination with PMO-LYED and other central agencies:** Since skills and employment cut across sectors, MoEST will coordinate with the Prime Minister's Office (Labour, Youth, Employment and Persons with Disabilities) which leads on national employment initiatives. A joint MoEST-PMO Steering input ensures that programmes like the National Internship Programme align with our Framework. Also, MoEST will liaise with the President's Office – Public Service (on any public service training placement issues) and PO-RALG (for local level rollout).

iv. **In Zanzibar context:** MoEST's Permanent Secretary will maintain communication with MoEVT's Principal Secretary to oversee Zanzibar's involvement. They might form a small joint taskforce to handle union matters or troubleshooting. Though MoEVT has its own chain, for union activities (like NSCC membership, or data sharing) MoEST's Permanent Secretary ensures those links function.

4.2.3 Ministry of Education and Vocational Training and Related Institutions

Given the national scope of the Framework, the **Revolutionary Government of Zanzibar (RGoZ)**, through its MoEVT and other bodies, plays a critical role in governance and implementation for the isles. To avoid overlap and ensure synergy, Zanzibar's participation is integrated as follows:

i. **MoEVT** will serve as the lead coordinating body for Framework activities in Zanzibar, analogous to MoEST's role on the Mainland. MoEVT will align the Framework with Zanzibar's specific policies like the Zanzibar Education Development Plan and Zanzibar Vision 2050 priorities on skills. It will adapt directives or guidelines from MoEST to the Zanzibar context as needed. MoEVT's Principal Secretary will sit on the NSCC as the official representative of SMZ in the national coordination, ensuring that Zanzibar's voice is heard at the strategic level.

ii. **Zanzibar representation in NSCC and Steering Committee:** As a semi-autonomous region, Zanzibar will have dedicated seats in key bodies. Specifically, the NSCC composition (outlined in section 4.2 below) includes the PS of MoEVT, a representative from the Zanzibar Ministry responsible for Labour/Employment, and heads of key Zanzibar institutions.

iii. **Zanzibar Vocational Training Authority (VTA) and other agencies:** These institutions will be integrated into the working structures.

iv. **MoEVT responsibilities:** Within Zanzibar, MoEVT will implement similar roles as MoEST issuing local guidelines (for example, instructing all Zanzibar TVET centres to implement new WBL standards), mobilising local resources (Zanzibar has some training funds and projects), and monitoring outcomes.

v. **Reporting and accountability:** MoEVT will report on Zanzibar's progress within the Framework to NSCC and also internally within SMZ government.

4.3 National Skills Coordination Council

4.3.1 Purpose and Mandate

The **National Skills Coordination Council (NSCC)** is established as the apex public–private institutional mechanism responsible for the strategic coordination, oversight, and stewardship of national skills development and academia-industry collaboration in Tanzania. In essence, NSCC serves as the highest-level forum where all key stakeholders come together to align education and training with labour market needs, industrialization priorities, and workforce transformation objectives.

Mandate of NSCC:

i. **Provide strategic leadership** by defining national priorities, objectives, and performance targets for skills development and industry–academia collaboration, including the identification of priority sectors and approval of annual Framework work plans.

ii. **Ensure whole-of-government policy coordination** by serving as the central platform for aligning the actions of ministries and agencies, resolving policy inconsistencies, and endorsing reforms that strengthen skills development and employment outcomes.

iii. **Drive high-level employer engagement** by creating a forum where senior industry leaders (CEOs, association heads, and major employers) engage directly with policymakers to articulate skills needs, raise systemic constraints, and commit to concrete support for training and workforce development.

iv. **Oversee national skills planning** by reviewing labour market intelligence generated through the LMIS, anticipating current and future skills demands, and guiding education and training providers to adjust programmes accordingly.

v. **Safeguard the quality and relevance of training provision** by reviewing evidence on outcomes such as graduate employment rates and employer satisfaction and directing corrective actions through relevant regulatory and implementation bodies where gaps are identified.

vi. **Coordinate and align financing strategies** by advising on resource allocation, promoting coherence among funding streams (government budgets, development partners, and private sector contributions), and mobilising commitments to support priority skills interventions.

vii. **Ensure a decisive, demand-driven focus** across all interventions, guaranteeing that initiatives are adequately resourced, aligned with labour market demand, and demonstrably linked to employment outcomes. Unlike previous advisory bodies, the NSCC is designed to actively shape decisions; while its resolutions may not be legally binding, they carry significant authority given the participation of senior decision-makers, thereby strongly guiding implementation and action.

4.3.2 Composition

The National Skills Coordination Council shall be chaired by the Permanent Secretary of the Ministry responsible for Education, Science and Technology, and shall comprise senior representatives from, inter alia:

Government Ministries:

i. MoEST (chair and secretariat host);

ii. Prime Minister's Office – Labour, Employment and Relations (PMO-LER);

iii. Ministry of Finance;

iv. Ministry of Industry and Trade;

v. Prime Minister's Office – Regional Administration and Local Government;

vi. Ministry of Education and Vocational Training;

vii. Zanzibar Vocational Training Authority; and

viii. President's Office - Youths Development.

Regulatory and Training Authorities:

i. Tanzania Commission for Universities;

ii. National Council for Technical and Vocational Education and Training;

iii. Vocational Education and Training Authority;

iv. Zanzibar Vocational Training Authority; and

v. Commission for Science and Technology.

Private Sector Apex Organizations and Employer Associations:

i. Association of Tanzania Employers;

ii. Tanzania Private Sector Foundation;

iii. Confederation of Tanzanian Industries;

iv. Chamber of Commerce; and

v. Zanzibar National Chamber of Commerce.

Selected major employers from priority sectors:

- Selected CEOs/Directors from big companies or sector-leading firms may also be members.

Representatives of Education/Training Institutions:

- Vice Chancellors (one from a public university, one from private university maybe); and
- A Principal from a constituent college, technical college or vocational center.

4.3.3 Core Functions

The National Skills Coordination Council shall:

i. Provide strategic leadership and national coordination for skills development and industry–academia collaboration across all post-secondary education and training subsectors.

ii. Establish, review, and prioritise national skills development agendas aligned with economic transformation, industrial growth, and labour-market needs.

iii. Oversee the design, regulation, and quality assurance of work-based learning systems, including apprenticeships, industrial attachments, and employer-led training programmes.

iv. Guide the development and implementation of employer incentive mechanisms, including cost-sharing arrangements and training reimbursement frameworks, to encourage private-sector participation in skills development.

v. Endorse national occupational standards, competency frameworks, and training guidelines developed in collaboration with Sector Skills Councils and relevant regulatory bodies.

vi. Review and approve consolidated annual implementation plans, performance reports, and labour-market intelligence outputs submitted by the Technical Secretariat.

vii. Identify and resolve high-level policy, regulatory, and institutional bottlenecks affecting skills development and employer engagement.

viii. Recommend policy reforms, regulatory adjustments, and financing instruments to the Government to strengthen the sustainability and effectiveness of national skills systems.

ix. Mobilise and align public, private, and development-partner resources in support of scalable, demand-driven skills development initiatives.

x. Report to an appropriate Cabinet-level committee or national economic coordination forum to ensure authority, accountability, and cross-government ownership.

4.4 Technical Working Groups

4.4.1 Establishment and Scope

To support evidence-based implementation and technical coherence, **Technical Working Groups (TWGs)** shall be established under the oversight of the Inter-Ministerial Steering Committee. TWGs shall be thematic, time-bound where appropriate, and composed of subject-matter experts from government, academia, industry, and development partners.

Indicative Technical Working Groups may include:

a) Curriculum and Skills Alignment TWG

b) Work-Based Learning and Apprenticeships TWG

c) Research, Innovation and Technology Transfer TWG

d) Labour Market Information and Data Systems TWG

e) Financing, Incentives and Sustainability TWG

4.4.2 Roles and Responsibilities

i. **Technical Development and Advisory:** TWGs develop guidelines, standards, and operational tools, translating policy directives into practical instruments and providing specialised advice to MoEST and the NSCC/Steering Committee.

ii. **Evidence Review and Policy Guidance:** TWGs analyse monitoring results, research findings, tracer studies, and labour market data to assess intervention effectiveness and recommend timely policy adjustments.

iii. **Piloting and Scaling Interventions:** TWGs design and oversee pilot programmes, monitor outcomes, document lessons learned, and refine models for effective scaling across institutions and sectors.

iv. **Capacity Building:** TWGs identify capacity gaps and coordinate or deliver targeted training, workshops, and knowledge-sharing activities to strengthen institutional and practitioner capabilities.

v. **Output Generation and Reporting:** TWGs produce draft policies, standards, manuals, analytical reports, and training materials, submitting them to the NSCC or relevant authorities and reporting progress through the Technical Secretariat.

TWGs report regularly to the Technical Secretariat and, through it, to the NSCC/Inter-Ministerial Steering Committee. Each TWG will prepare brief progress reports for each NSCC meeting (via the Secretariat) or as needed.

4.5 Technical Secretariat

4.5.1 Institutional Location and Mandate

A **Technical Secretariat** shall be established within MoEST to serve as the operational hub for Framework implementation. The Secretariat's **mandate** is to coordinate and drive forward the implementation of all Framework activities across pillars, under guidance from NSCC and MoEST leadership. It acts as the nerve center linking all stakeholders and monitoring progress. The Secretariat shall function as a permanent structure with dedicated staff and resources.

4.5.2 Core Functions

The Secretariat shall be responsible for:

i. Day-to-day coordination of Framework activities.

ii. Convening meetings of the Steering Committee, TWGs, and Sector Skills Councils. The Secretariat organizes all the governance meetings, sending invitations, preparing agendas (in consultation with chairs), circulating documents, and ensuring minutes and follow-up.

iii. Supporting preparation of annual work plans and budgets.

iv. Coordinating monitoring, evaluation, and reporting processes.

v. Serving as the primary liaison point for stakeholders and development partners.

vi. Managing knowledge, documentation, and communication related to the Framework. All documents (policies, guidelines, data reports, meeting minutes) are maintained by the Secretariat for institutional memory.

The Secretariat shall work closely with relevant MoEST departments, particularly those responsible for higher education, TVET, quality assurance, and policy planning.

4.6 Sector Skills Councils

4.6.1 Role in Sectoral Coordination

Sector Skills Councils (SSCs) shall function as the primary platforms for structured engagement between industry and education providers at sector level. SSCs shall focus on identifying current and future skills needs, advising on occupational standards, and informing curriculum and training reforms.

4.6.2 Composition

Each Sector Skills Council shall comprise:

a) Representatives of leading employers and industry associations in the sector,

b) Representatives of relevant education and training institutions,

c) Regulatory authorities relevant to the sector,

d) Government representatives from sector ministries, and

e) Professional bodies and, where appropriate, labour representatives.

4.6.3 Core Functions

SSCs shall:

i. **Conduct sector-specific skills needs assessments:** Systematically analyse current and future sector skills demand through employer surveys and labour market

analysis, producing periodic Sector Skills Reports that inform education planning and national coordination through the NSCC.

ii. **Advise on curriculum relevance and emerging competencies:** Provide continuous, evidence-based guidance to ensure curricula are regularly updated to reflect industry practices, technological change, and emerging competencies, acting as the sector's voice in curriculum and assessment processes.

iii. **Support development and updating of occupational standards:** Work with regulatory authorities and industry experts to review, update, and validate occupational standards so they reflect current technologies, work processes, and competency requirements.

iv. **Facilitate placement opportunities for work-based learning:** Coordinate with employers to expand and manage internships, apprenticeships, and trainee placements, including shared and sector-wide schemes that increase student access to quality work-based learning.

v. **Provide feedback on graduate performance and employability trends:** Collect and synthesise employer feedback on graduate performance and labour market outcomes to identify skills gaps and guide continuous improvement in training provision and employability.

4.7 Roles of Regulatory Authorities

4.7.1 Quality Assurance and Accreditation

Regulatory and quality assurance bodies shall play a critical role in institutionalising industry–academia collaboration. Their responsibilities shall include:

i. Integrating industry engagement requirements into accreditation and programme approval criteria by requiring regulators such as TCU and NACTVET to verify concrete evidence of active industry linkages during accreditation and re-accreditation, including the existence of industry advisory committees, curricula aligned with employer-defined competency standards, and structured internship or apprenticeship components, with programmes that fail to meet these requirements facing conditional or withheld accreditation to make collaboration a mandatory quality standard rather than an optional practice.

ii. Promoting competency-based education and assessment standards by embedding regulator-driven guidelines that compel institutions to adopt competency-based education frameworks focused on demonstrable learning outcomes and graduate skills, ensuring that curricula, teaching methods, and assessments are explicitly aligned with competencies demanded by employers rather than being driven solely by contact hours or theoretical content.

iii. Ensuring quality and consistency in work-based learning implementation through systematic regulatory audits by bodies such as NACTVET, TCU and related quality assurance units to assess whether students are genuinely placed in internships or apprenticeships, whether institutions maintain formal MoUs with host employers, and whether supervision tools such as logbooks and assessment reports are properly used, alongside the enforcement of minimum national standards for WBL such as defined credit requirements or industry-involved capstone projects.

iv. Supporting continuous improvement through periodic institutional and programme reviews by integrating industry engagement as a core focus of academic audits and inspections, including consultations with local employers on graduate performance, the provision of structured feedback to institutions on identified gaps, and the documentation and dissemination of good practices observed in high-performing institutions for wider adoption across the system.

4.7.2 Data and Compliance

Regulatory bodies shall also support data collection and compliance monitoring related to graduate outcomes, curriculum relevance, and partnership effectiveness, in coordination with MoEST and national data systems.

4.8 Roles of Education and Training Institutions

Education and training institutions such as universities, colleges, and TVET institutions, are central actors in the implementation of the Framework. Their core responsibility is to translate national policy intentions into concrete institutional practices that improve skills relevance, employability, and innovation outcomes. In fulfilling this mandate, institutions shall assume the following roles and responsibilities:

i. **Mainstream the Framework into institutional planning and governance** by incorporating its objectives and targets into strategic plans, annual operational plans, and internal policies, with explicit focus on graduate employability, work-based learning, and industry partnerships.

ii. **Provide visible leadership and institutional commitment** through Vice Chancellors, Principals, and senior management actively championing collaboration with industry and fostering an institutional culture that values employability, practical skills, and innovation alongside academic achievement.

iii. **Establish or strengthen Industry Liaison Units (ILUs) or equivalent mechanisms** to serve as the institutional focal point for industry engagement. These structures shall coordinate partnerships, manage internships and apprenticeships, support alumni tracking, and facilitate joint activities with employers. Institutions shall ensure that such units are formally recognised, adequately staffed, and resourced in line with institutional size and mandate.

iv. **Institutionalise Industry Advisory Committees (IACs)** at faculty, school, or programme level to ensure structured and continuous engagement of employers in curriculum development, review, and quality improvement. Institutional leadership shall issue clear guidelines on the composition, frequency of meetings, and use of IAC recommendations in academic decision-making.

v. **Integrate work-based learning into institutional regulations and academic calendars** by embedding internships, industrial attachments, apprenticeships, or dual training arrangements as compulsory, credit-bearing components of programmes, and by aligning timetables, assessment rules, and graduation requirements accordingly.

vi. **Allocate adequate financial and human resources to partnership development**, including budgetary provisions for collaboration activities and formal recognition of staff time dedicated to industry engagement as part of institutional workload and performance expectations.

4.9 Roles of Employers and the Private Sector

i. **Hosting work-based learning:** Employers shall provide structured internships, apprenticeships, industrial attachments, and graduate trainee placements, including supervision and meaningful work exposure, as an investment in talent development and future recruitment.

ii. **Mentoring and supervision:** Employers shall assign qualified staff to mentor students and trainees, ensuring practical skills transfer, professional socialisation, and adherence to workplace standards.

iii. **Curriculum design and review:** Employers shall actively participate in curriculum development and periodic review through Industry Advisory Committees and sector forums to ensure training reflects current and future skills needs.

iv. **Provision of equipment and facilities:** Employers shall support practical training by donating relevant equipment, granting access to facilities, or exposing students to real production environments, technologies, and operational practices.

v. **Co-investment and financing:** Employers shall contribute financially to skills development through programme sponsorships, scholarships, training funds, public–private partnerships, or statutory levies dedicated to workforce development.

vi. **Applied research and innovation support:** Employers shall collaborate with education and training institutions on applied research, innovation, technology transfer, and skills upgrading initiatives aligned with sector priorities.

vii. **Governance and system oversight:** Employers shall contribute managerial and industry expertise by serving on institutional boards, Sector Skills Councils, and national coordination bodies to strengthen responsiveness and accountability.

viii. **Skills demand forecasting and feedback:** Employers shall collaborate with government and institutions to forecast skills demand and provide systematic feedback on graduate performance and emerging training gaps.

ix. **Policy advocacy:** Through employer associations, employers shall advocate for sustained government support, effective use of skills financing mechanisms, and policy reforms that incentivise training and workforce development.

x. **Strategic integration of training:** Employers shall embed human capital development into business strategy by establishing structured graduate programmes, apprenticeship pipelines, and long-term partnerships with education and training institutions.

4.10 Roles of Regional and Local Government Authorities

Regional and Local Government Authorities shall facilitate implementation at sub-national level by:

i. Supporting partnerships between local institutions and industries.

ii. Coordinating regional skills initiatives aligned with local economic priorities.

iii. Monitoring implementation progress within their jurisdictions.

iv. Promoting equitable access to work-based learning opportunities, including in rural and underserved areas.

4.11 Roles of Development Partners and NGOs

Development partners (multilateral agencies including World Bank, AfDB, UN agencies, bilateral donors, etc.) and NGOs have historically supported skills development in Tanzania and Zanzibar through funding, technical assistance, and pilot programmes. Under this Framework, Development partners and NGOs' role is to align their support with national priorities and fill gaps in capacity or resources as follows:

i. **Financial support for scaling and innovation:** shall provide grants or concessional financing to scale successful skills development models and pilot innovative approaches in line with nationally agreed priorities and sustainability plans.

ii. **Technical expertise and knowledge transfer:** shall contribute international best practices and specialised expertise through advisory support, technical assistance, and capacity building for government institutions and the Technical Secretariat.

iii. **Innovative pilot projects:** shall design and implement targeted pilot initiatives for specific regions or groups, coordinating through the NSCC and Secretariat to ensure complementarity and facilitate government-led scaling of successful models.

iv. **Advocacy and policy dialogue:** shall use policy dialogue platforms to advocate for sustained investment in skills development and maintain high-level political and stakeholder attention on workforce development priorities.

v. **Monitoring and evaluation support:** shall support rigorous monitoring, evaluation, and impact assessments of skills interventions to generate evidence for learning, accountability, and continuous improvement.

vi. **Regional integration:** shall facilitate Tanzania and Zanzibar's participation in regional and cross-country skills initiatives to promote benchmarking, mutual recognition, and labour mobility.

vii. **Resource convening and partnership facilitation:** shall convene and broker partnerships among government, private sector, and other stakeholders, providing neutral facilitation and catalytic support to strengthen collaboration under the Framework.

CHAPTER
FIVE

MONITORING, EVALUATION AND LEARNING

5.1 Overview of MEL Framework

There shall be robust **Monitoring, Evaluation, and Learning (MEL)** system to ensure that the implementation of the Framework is on track and achieving its intended outcomes,. This Chapter details the results framework, key indicators, data sources, and feedback mechanisms that will be used to measure progress, evaluate effectiveness, and facilitate continuous learning and adaptation throughout the life of the Framework. The MEL approach is designed to promote transparency, accountability, and data-driven decision-making at all levels of implementation.

The MEL system aligns with the logical structure of the Framework's objectives from high-level impact to specific activities and defines how success will be measured at each level. It also clarifies roles and responsibilities for data collection, analysis, reporting, and learning among the various institutions involved (including Mainland and Zanzibar agencies).

5.2 Results Framework and Theory of Change

At the highest level, the Framework's desired change is to improve the employability of graduates and align skills with the needs of Tanzania's economy, thereby contributing to job creation and productivity. The results framework breaks this down into **Impact, Outcome, Output, Activity**, and **Input** levels, each illustrative in Table 5.2.

Table 5.2: Results Framework and Theory of Change

Results Level	Description	Examples under the Framework
Impact	Long-term national development outcomes	Improved graduate employability; reduced skills mismatch; increased productivity and industrial competitiveness
Outcomes	Medium-term behavioral and system changes	Industry-aligned curricula; increased work-based learning uptake; stronger employer confidence
Outputs	Tangible deliverables produced	Revised curricula; operational Sector Skills Councils; functional LMIS; internship placements
Activities	Actions undertaken	Curriculum reviews; internships/apprenticeships; employer surveys; capacity building
Inputs	Resources and enablers	Policies, financing, staff, data systems, partnerships

5.3 MEL Indicator Framework

A detailed **Indicator Framework** is established, specifying key performance indicators (KPIs) at different results levels, their definitions, and disaggregation criteria. These indicators allow for quantitative tracking of progress and effectiveness. Table 5.3a outlines sample MEL indicators by result level and Table 5.3b outlines sample Indicator–Pillar Alignment Matrix.

Table 5.3a: MEL Indicator Framework (By Results Level)

Level	Indicator	Definition	Disaggregation
Impact	Graduate employment rate	% of graduates employed within 12 months of completion	Sex, level, discipline, region
Impact	Employer satisfaction index	Employer rating of graduate competencies	Sector, firm size
Outcome	Programmes revised with industry input	% of programmes reviewed with documented industry participation	Institution, discipline
Outcome	Students completing WBL	% of students completing credit-bearing work-based learning	Sex, level, institution
Output	Sector Skills Councils operational	Number of SSCs meeting at least twice annually	Sector
Output	Students placed in internships/apprenticeships	Number of learners placed per year	Region, sector

Table 5.3b: Indicator–Pillar Alignment Matrix

Strategic Pillar	Key Indicators
Governance & Coordination	Functional Steering Committee; SSCs producing annual skills plans
Curriculum Relevance & Skills Alignment	% curricula revised; competency-based programmes adopted
Work-Based Learning	Internship/apprenticeship participation rate; employer hosting rate
Research & Innovation Linkages	Joint research projects; innovation hubs established
Data & Decision-Making	LMIS operational; graduate tracer studies conducted
Sustainability & Financing	Share of activities funded through GoT budget

5.4 Data Sources and Collection Responsibilities

Reliable data collection is the backbone of the MEL system. Table 5.4 outlines the major data sources, who is responsible for them, and how often they are collected.

Table 5.4: Data Sources and Collection Responsibilities

Data Source	Responsible Institution	Frequency	Use
Graduate tracer studies	MoEST / Institutions	Biennial	Employment outcomes, curriculum review
Employer surveys	Sector Skills Councils	Annual	Skills demand analysis
Institutional admin data	Institutions	Semester/Annual	Enrolment, WBL participation
Labour force data	National Statistics Body	Annual	Skills demand forecasting
Research & innovation data	Universities / Agencies	Annual	Innovation performance

5.5 Reporting and Review Mechanisms

Regular reporting and review processes ensure the MEL data leads to actions and learning: Table 5.5 outlines key reports, content, responsibility, and frequency:

Table 5.5: Reporting and Review Mechanisms

Report Type	Content	Responsibility	Frequency
Implementation brief	Output progress	Technical Secretariat	Quarterly
Annual performance report	Outcomes, challenges, lessons	MoEST	Annual
Mid-term evaluation	Effectiveness, relevance	Independent evaluators	Mid-cycle
End-term evaluation	Impact, sustainability	Independent evaluators	End-cycle

5.6 Learning and Feedback Mechanisms

Monitoring and evaluation are not just for accountability but for continuous learning. The Framework establishes mechanisms to ensure lessons from implementation are fed back into policy and practice improvements as indicated in Table 5.6 a - 5.6d.

Table 5.6a: Learning and Feedback Mechanisms

Learning Tool	Purpose	Application
Policy review workshops	Translate findings into reforms	Curriculum and policy updates
Sector dialogue forums	Share labour market insights	SSC planning
Dashboards & scorecards	Real-time monitoring	MoEST decision-making
Knowledge repository	Capture good practices	Scaling and replication

Table 5.6b: Institutional Roles in MEL

Actor	MEL Responsibilities
MoEST (Secretariat)	Consolidation, analysis, reporting, policy feedback
Regulatory Authorities	Compliance data, quality indicators
Education Institutions	Graduate tracking, WBL reporting
Sector Skills Councils	Skills intelligence, employer feedback
National Statistics Body	Labour market indicators

Table 5.6c: Risks and Mitigation in MEL

Risk	Likely Effect	Mitigation Measure
Fragmented data systems	Weak evidence base	System integration and standard tools
Limited analytical capacity	Delayed policy action	Targeted capacity building
Reporting fatigue	Low data quality	Streamlined indicators and automation
Delayed feedback	Slow reform	Scheduled review cycles

Table 5.6d: Use of MEL Results

MEL Output	Decision Supported
Tracer study findings	Curriculum revision, enrolment planning
Employer feedback	Skills priority updates
Performance indicators	Budget allocation, incentives
Evaluation findings	Policy and regulatory reform

CHAPTER
SIX

RISK MANAGEMENT AND ASSUMPTIONS

6.1 Overview of Risk Management and Assumption

Every reform initiative faces uncertainties and potential challenges that could hinder its success. This Chapter identifies the major risks associated with the implementation of the National Framework for Academia-Industry Collaboration and outlines the mitigation measures to manage those risks. It also states the key assumptions underpinning the Framework's theory of change -conditions that are expected to hold true for the interventions to achieve the intended results. Proactively managing risks and validating assumptions is crucial to ensure uninterrupted, effective, and sustainable implementation of the Framework.

A structured risk management approach is adopted, including a risk framework overview and detailed risk matrix by categories. The aim is to be **proactive**- identifying potential obstacles early, reducing their likelihood and impact through mitigations, and having clear escalation mechanisms.

6.2 Risk Management Framework

The overall objective of risk management in this Framework is to **ensure uninterrupted, effective, and sustainable implementation** of planned interventions. To achieve this, a **proactive approach** to risk identification, mitigation, monitoring, and escalation shall be employed. The risk management cycle shall operate both at an operational level (frequent reviews for immediate issues) and strategic level (periodic high-level reviews for broader risks). Key elements of the risk framework are explained in Table 6.2.

Table 6.2: Risk Management Framework

Element	Description
Risk Objective	Ensure uninterrupted, effective, and sustainable implementation of the Framework
Risk Approach	Proactive identification, mitigation, monitoring, and escalation
Risk Review Cycle	Quarterly (operational) and Annual (strategic)
Oversight Body	Inter-Ministerial Steering Committee
Operational Custodian	MoEST Technical Secretariat

6.3 Risk Matrix by Category

The Framework categorizes risks into broad areas to ensure comprehensive coverage. Each category is detailed in a risk matrix (Tables 6.3a – 6.3h) including description, likelihood, impact, mitigation, and responsible entity for each risk. Below is a summary by risk category:

Table 6.3a: Policy and Reform Risks

Risk Category	Risk Description	Likelihood	Impact	Mitigation Measures	Responsible Entity
Policy Alignment	Shifts in national priorities delay implementation	Medium	High	Embed framework in TDV, FYDP, MoEST policies	MoEST
Policy Approval	Delays in issuing directives and guidelines	Medium	Medium	Early stakeholder engagement, phased issuance	MoEST
Reform Fatigue	Competing reforms dilute attention	Medium	Medium	Integration with existing reforms	Steering Committee

Table 6.3b: Institutional Capacity and Coordination Risks

Risk Category	Risk Description	Likelihood	Impact	Mitigation Measures	Responsible Entity
Coordination	Fragmented roles across MDAs	High	High	Formal inter-ministerial mechanisms	MoEST
Capacity	Limited technical capacity in institutions	Medium	High	Targeted capacity building	MoEST / Institutions
Turnover	Loss of trained staff	Medium	Medium	Institutionalisation, manuals	Institutions

Table 6.3c: Financing and Resource Risks

Risk Category	Risk Description	Likelihood	Impact	Mitigation Measures	Responsible Entity
Budget Constraints	Insufficient GoT funding	Medium	High	MTEF integration, prioritisation	MoEST/ MoFP
Donor Dependence	Over-reliance on external funding	Medium	High	Cost-sharing, private sector financing	MoEST
Delays	Delayed disbursement of funds	Medium	Medium	Improved planning and cash-flow scheduling	MoEST

Table 6.3d: Stakeholder Engagement and Behavioral Risks

Risk Category	Risk Description	Likelihood	Impact	Mitigation Measures	Responsible Entity
Employer Engagement	Low industry participation	Medium	High	Incentives, recognition mechanisms	MoEST / Industry
Institutional Resistance	Resistance to curriculum change	Medium	Medium	Change management, leadership buy-in	Institutions
Learner Awareness	Low uptake of WBL opportunities	Low	Medium	Career guidance and communication	Institutions

Table 6.3e Data, Monitoring, and Evidence Risks

Risk Category	Risk Description	Likelihood	Impact	Mitigation Measures	Responsible Entity
Data Fragmentation	Incompatible data systems	High	High	System integration and standards	MoEST
Data Quality	Inconsistent reporting	Medium	Medium	Standard tools, QA processes	Regulators
Analytics Capacity	Weak data analysis skills	Medium	Medium	Training and technical support	MoEST

Table 6.3f : External and Systemic Risks

Risk Category	Risk Description	Likelihood	Impact	Mitigation Measures	Responsible Entity
Economic Shocks	Reduced employer capacity	Medium	High	Flexible WBL models	MoEST
Health Emergencies	Training disruptions	Low	High	Digital/blended learning	Institutions
Technological Change	Skills obsolescence	High	Medium	Continuous curriculum updates	SSCs

Table 6.3g: Risk Monitoring and Escalation Mechanism

Level	Action	Frequency
Institutional	Risk identification and reporting	Quarterly
Secretariat	Risk consolidation and analysis	Quarterly
Steering Committee	Risk review and escalation	Bi-annual
MoEST Management	Strategic risk decisions	Annual

Table 6.3h: Consolidated Risk Register (Summary)

Risk Level	Number of Risks	Management Priority
High	7	Immediate mitigation
Medium	11	Active monitoring
Low	4	Routine monitoring

CHAPTER SEVEN

OPERATIONALISATION OF THE FRAMEWORK

7.1 Overview

The National Framework for Academia–Industry Collaboration in Skills Development and Employability is built around six mutually reinforcing strategic pillars that collectively address governance, relevance, delivery, innovation, evidence, and sustainability within the skills development system.

These pillars comprise: (i) Governance and Coordination Mechanisms; (ii) Curriculum Relevance and Skills Alignment; (iii) Work-Based Learning and Skills Development Programmes; (iv) Industry Partnerships, Research and Innovation Linkages; (v) Information Systems and Data-Driven Decision-Making; and (vi) Policy Support, Financing, and Sustainability Measures. While each pillar responds to a specific systemic challenge, their effectiveness depends on being implemented in an integrated manner that moves beyond policy intent to coordinated national action. Without such integration, the Framework risks remaining largely conceptual, with limited influence on practice and outcomes.

To achieve sustained and system-wide impact, the Framework will therefore be implemented through four (4) integrated National Programmes that are deliberately designed, adequately resourced, and rigorously executed. This programme-based approach translates the six strategic pillars into a coherent national delivery architecture, shifting implementation away from fragmented projects and isolated institutional initiatives. It clarifies roles and responsibilities among government entities, education and training institutions, and industry; supports predictable budgeting and alignment with the Medium-Term Expenditure Framework (MTEF); strengthens accountability for results; and enables successful interventions to be scaled across sectors and regions. Through these four programmes, the strategic pillars are converted into actionable, measurable, and financeable national interventions, ensuring that the Framework delivers its intended outcomes in practice rather than remaining a policy statement in principle.

7.2 National Industry–Academia Governance, Coordination and Sustainability Programme

The National Industry–Academia Governance, Coordination and Sustainability Programme (NIAGCSP) provides the institutional and governance backbone for the Framework. Its primary purpose is to establish and sustain a coherent national governance, coordination, and financing system for industry–academia collaboration. Experience has shown that without a strong coordinating mechanism, skills initiatives remain fragmented, under-resourced, and dependent on short-term projects. NIAGCSP directly addresses this challenge by embedding collaboration within permanent government systems and policy frameworks.

The programme operationalises Pillars 1 and 6 of the Framework through the establishment of a National Skills Coordination Council (NSCC) to provide unified strategic leadership across ministries, departments and agencies, regulators, and industry. It will be supported by inter-ministerial coordination mechanisms, Sector Skills Councils in priority economic sectors, and a permanent Technical Secretariat housed within the Ministry of Education, Science and Technology (MoEST) responsible for coordination, monitoring, and reporting. The programme also focuses on policy harmonisation and the institutionalisation of sustainable financing arrangements, including integration of skills development initiatives into the Medium-Term Expenditure Framework (MTEF) and related skills financing instruments. Expected results include unified national leadership, reduced fragmentation across MDAs, and predictable, sustainable financing for skills development initiatives.

7.3 National Curriculum Relevance and Skills Alignment Programme

The National Curriculum Relevance and Skills Alignment Programme (NCRSAP) translates Pillar 2 of the Framework into a nationally coordinated curriculum reform agenda. Its purpose is to ensure that all TVET and higher education programmes are competency-based, outcomes-oriented, and responsive to labour market demand. Persistent skills mismatch in Tanzania has been closely linked to curricula that are overly theoretical, slow to update, and weakly connected to employer needs.

Under this programme, structured and mandatory industry participation will be institutionalised in curriculum design, review, and accreditation processes. Competency-based and outcomes-oriented approaches will be adopted across TVET and higher education, with systematic integration of digital, green, entrepreneurial, and transferable skills required in priority sectors. Modular and stackable curriculum structures will be promoted to support flexibility, lifelong learning, and rapid responsiveness to changing skills needs. Regulatory enforcement by TCU, NACTVET, and related bodies will be strengthened to ensure compliance and quality assurance. Expected results include reduced skills mismatch, improved curriculum relevance, and enhanced graduate job readiness.

7.4 National Work-Based Learning, Apprenticeship and Graduate Transition Programme

The National Work-Based Learning, Apprenticeship and Graduate Transition Programme (NWBLGTP) operationalises Pillar 3 and key aspects of Pillar 4 by mainstreaming structured, credit-bearing, and quality-assured work-based learning as a core pathway from education and training to employment. Limited workplace exposure and weak school-to-work transition mechanisms have been identified as major barriers to graduate employability.

The programme will establish a national internship and apprenticeship framework, strengthen industrial attachments, and introduce standardised, credit-bearing work-based learning requirements across TVET and higher education. Structured graduate transition and internship schemes will be implemented in collaboration with employers, supported by employer incentive and recognition mechanisms. Digital systems will be deployed to support placement coordination, supervision, assessment, tracking, and reporting. Expected results include shorter school-to-work transitions, improved practical competence of graduates, and increased employer participation in skills development.

7.5 National Industry–Academia Innovation, Research and Skills Intelligence Programme

The National Industry–Academia Innovation, Research and Skills Intelligence Programme (NIAR-SIP) integrates Pillars 4 and 5 of the Framework by strengthening innovation-driven collaboration between academia and industry while institutionalising evidence-based skills planning. Innovation, applied research, and reliable labour market intelligence are essential for ensuring that skills systems remain forward-looking and aligned with economic transformation priorities.

The programme will support joint applied research and innovation projects, the establishment and scaling of teaching factories, innovation hubs, incubators, and technology transfer mechanisms, and enhanced staff and student mobility between academia and industry. At the same time, it will institutionalise skills intelligence systems, including integrated Labour Market Information Systems (LMIS), graduate tracer studies, and regular employer skills demand surveys, to inform policy reform, curriculum updates, and investment decisions. Expected results include enhanced industrial competitiveness, increased uptake of applied research and innovation, and strengthened data-driven skills planning and decision-making.

7.6 Implementation Roadmap (Phase I: 2026/27–2030/31)

Implementation will be phased to ensure learning, adaptation, and sustainability.

Year 1 will focus on establishing governance structures, the Technical Secretariat, baseline data systems, and a fully costed implementation plan, while delivering early quick wins in internships and coordination.

Years 1–2 will emphasise piloting of interventions, capacity building, and initial curriculum reforms in priority sectors and institutions.

Years 3–5 will focus on national scale-up, strengthened regulatory enforcement, integration into routine government systems, and mid-term and end-term evaluations.

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