



Developing Skills for Tanzanian Youth Through Dynamic TVET

A World Bank Policy Note for Tanzania – Mainland

DEVELOPING SKILLS FOR TANZANIAN YOUTH THROUGH DYNAMIC TVET

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EXECUTIVE SUMMARY

Tanzania’s rapidly growing population, particularly its youth, faces challenges in entering the labor market due to limited employable skills. In response, since 2016, the government approved a ten-year National Skills Development Strategy (NSDS) and started reforms in the technical and vocational education and training (TVET) sector, supported by various development partners. These reforms aim to increase TVET enrollment, strengthen the skills development systems, and align training programs with the demands of the labor market. While progress has been made, there is a need to take stock of and scale up successful reforms to generate significant impact. At the same time, there are evolving global, national and local contexts that affect the landscape, priorities and impact of the skills development system in Tanzania.

This policy note first reviews the demand-side factors including Tanzania’s economic, employment, and labor force characteristics, then it critically analyzes the TVET and skills development system². It draws from existing studies and available data to provide an overview of key sector issues and highlights the challenges that require attention as they relate to cultivating employable skills for all Tanzanian youth. This policy note complements the World Bank Policy Note on “Strengthening Basic Education System and Improving Learning Outcomes” and offers timely input to the government’s ongoing effort to strengthen the TVET sector.

Economic and employment structure. Agriculture, manufacturing, and services are the dominant economic sectors in Tanzania, collectively contributing 90.0 percent of the gross domestic product (GDP) in

2021. Although there has been a slight shift toward the service and manufacturing sectors in terms of employment, the agriculture sector remains the largest employer, absorbing 61.8 percent of the labor force in 2020. Formal wage employment in Tanzania has only marginally increased from 13.8 percent in 2014 to 14.0 percent in 2020/2021. The proportion of highly skilled occupations in the workforce has declined during this period. Informal employment remains significant, particularly in Dar es Salaam, with an increasing trend in rural and other urban areas since 2014. These trends highlight the current low level of formalization and industrialization in Tanzania.

Labor force participation and characteristics. Tanzania has a high labor force participation rate, with rural areas showing the highest participation, particularly in own account farming. While the overall labor force participation rates in Mainland Tanzania have slightly decreased from 86.7 percent in 2014 to 83.3 percent in 2020/2021, the average level of education of the labor force has increased, with a rise in the proportion of individuals with a university or secondary education. However, individuals with higher education face unemployment at higher rates. The youth unemployment rate has also increased slightly. These trends highlight the mismatch or low level of coordination between formal education and the needs of the labor market.

TVET structure and governance. The Tanzania TVET system complements the general education by providing TVET pathways for students and youth who finish or drop out of the general education system. A TVET pathway can be pursued at the Folk Development Colleges (FDCs), the Vocational Training

2. According to UNESCO, TVET comprises education, training and skills development relating to a wide range of occupational fields, production services and livelihoods. It empowers individuals, organizations, enterprises and communities and fosters employment, decent work and lifelong learning thereby promoting inclusive and sustainable economic growth and competitiveness, social equity and environmental sustainability. Throughout the policy note, the terms TVET and skills development system are used interchangeably and refer mainly to the myriad of institutions and programs organized to cultivate employable skills after the basic education stage.



Centers (VTCs), or Technical Colleges (TCs). To further strengthen its TVET, Tanzania has developed a national qualifications framework (NQF). Although the NQF is not yet fully operational, it aims to improve the articulation between general education and TVET subsystems and bridge the gap between a TVET education and labor market requirements. Governance of TVET and skills development is shared among several Ministries and regulatory agencies, including the Ministry of Education, Science and Technology (MOEST), the Prime Minister's Office–Labour, Youth, Employment and Persons with Disability (PMO-LYED), and other line Ministries such as Agriculture, Tourism, Finance, Health, and Transport that also operate their own training institutions. The National

Council for Technical and Vocational Education and Training (NACTVET) is mandated to accredit all public and private TVET providers and provide quality assurance. The government envisaged a National Skills Development Council (NSDC) platform as part of the NSDS but has yet to come to consensus on the mandates and composition of such a body and reevaluate its relationship with existing TVET MDAs. To date, there is not yet an apex-level coordination mechanism for TVET policies and stewardship.

Access and equity in TVET. Despite significant expansion in the last decade, the TVET sector in Tanzania has very limited coverage, with a total enrollment of half a million and gross enrollment

ratio (GER) of only 2.5 percent in 2020/2021. The expanding network of FDCs and VTCs, with flexible entry requirements and exits, plays a crucial role in the enrollment of out-of-school youth and dropouts from primary and lower secondary schools, as well as girls seeking alternative skills pathways after pregnancy and childbirth. TCs recruit students from lower secondary O-level graduates and provide two to three years' certificate or diploma programs in various trades. The majority of TC students (67.0 percent) are enrolled in three main programs: business, medicine and health sciences, and social science, leaving less than a third enrolled in STEM fields. The PMO-LYED targets out of school youth and employee training. It operates several skills development programs including apprenticeship, but the scale is also limited. The sector has also sought to improve access to TVET with greater attention to equity; while the sector has traditionally been male-dominated, efforts have been made to reduce gender disparity.

Quality and relevance of TVET programs. The quality of FDCs, VTCs and TCs could better prepare graduates for the labor market. Graduates of FDCs and VTCs tend to enter the labor market with a low-level skills certificate, and there are limited pathways for them to continue their formal education or training. Similarly, there are concerns about the quality and relevance of some programs in TCs, such as engineering, petrol, and gas programs, which have the lowest completion rates, below 50 percent. Tracer studies have highlighted the strengths and weaknesses of TVET programs in terms of labor market outcomes. These include disparities in employment rates across sectors and institutions; weak connections between TVET providers and industry, with most graduates earning below 1 million T Sh per month; limited access to professional training for TVET graduates; and low job satisfaction among TVET graduates. However, there remains great potential for growth as TVET gains recognition as a viable alternative type of education. Some studies reveal that employers tend to prefer ordinary diploma and certificate holders who possess practical skills gained from TVET programs, as opposed to degree holders from universities.

Links between industry and TVET. The quality and viability of a TVET system hinge on the scope and depth of its industrial partnerships. Tanzania established several Sector Skills Councils (SSCs) as system-level links with the productive sector, but the SSCs seem to be set at too high a level with mixed ownership by the private sector and are not yet producing concrete benefits. At the same time, several decentralized and more sustainable mechanisms of industry links at the provider level is emerging and gaining traction. Notable institution-based approaches include the installation of Industry Advisory Committees (IACs), updating of programs based on industrial standards, and carrying out regular graduate tracer studies in each TVET institute, sometimes at the faculty and program level. These practical measures directly impact the TVET programs to be demand driven. Efforts are also underway in NACTVET to update its accreditation requirements, develop industry-aligned occupational standards and model TVET curriculum to reorient TVET programs. It is important for the TVET system to have mechanisms, at system as well as provider level, to reflect the ever-evolving labor market demand, through reforms in governance and quality assurance as well as financial incentives.

Qualifications and competencies of TVET trainers. The TVET sector requires more qualified trainers, skilled with industry experience as most trainers only possess academic qualifications. The number of TVET staff with skills certificates is quite low. Additionally, TVET academic staff have limited access to continuous professional development and industrial attachment opportunities. It is also important to recruit more female trainers, to address gender disparity. The Gender Parity Index (GPI) is higher among vocational and education training (VET) academic staff than technical and education training (TET) academic staff.

Financing of TVET and skills development. Sources of financing for TVET in Tanzania include government appropriations, student fees, and the national skills levy. The government budget for TVET was increased between 2016 to 2020, but it needs to be sustained.

Government could further improve the efficiency of public spending by adopting performance based funding formula such as capitation grant or competitive fund to promote priority programs. TVET institutions generate their own income mainly from student fees, but the funds generated are limited due to the government fee caps. Tanzania has the highest skills development levy (SDL) in the world, with 4 percent of wage bill from every employer with more than four employees. While this indicates a strong commitment by the Tanzania employers to skills development, there is a need to review the transparent and effective use of SDL toward skills development. The SDL is allocated to higher education loans, Vocational Education and Training Authority (VETA), and PMO-LYED skills development fund, but employers are not directly refunded for the training they provide. SDL funding is yet to be channeled to NACTVET which has recently become the single TVET regulatory body in Tanzania, or to any TVET providers other than VETA.

Skills development funds under the PMO-LYED and MOEST. The PMO-LYED operates a skills development fund scheme to finance youth skills development. This program, funded by the SDL, includes apprenticeships, internships, recognition of prior learning (RPL), and reskilling/upskilling. In 2016, with support from the World Bank's Education and Skills for Productive Jobs (ESPJ), the Tanzania Education Authority (TEA) under MOEST also established another skills development fund to expand skills development and support the NSDS. The TEA tracer study showed that the energy sector had the highest employment rate (92 percent), followed by the agriculture and construction sectors (87 percent). Graduates from the information and communications technologies (ICT) sector had the lowest employment rate (61 percent). The main challenge faced SDF graduates was obtaining loans for business startups.

Quality assurance regulation and TVET management information system. To enhance quality assurance regulation in the TVET sector, the government established National Council for Technical and Vocational Education and Training (NACTVET) by merging the regulatory roles of VETA and NACTE into one single regulatory body. While NACTVET is making commendable efforts to update occupational standards in collaboration with lead industries, it needs to update its institution and program accreditation standards to better align with occupational standards and link with industry requirements. The composition of the subject panels could be regularly reviewed to maximize the participation of industries. The development of the Skills Management Information System (SMIS) aims to address the lack of consolidated data to enable evidence-based discussions on TVET issues. However, full integration of the SMIS database into the main NACTVET database is pending.

Beyond the traditional accreditation and requiring compliance to minimum standards, it is important for NACTVET to develop capacity and adopt mechanisms to support the TVET providers to deliver demand driven programs. NACTVET's new vision includes not only updating its standards, but also modernizing its processes, as well as developing products and services targeting various TVET stakeholders. Globally promising approaches include developing a national TVET resource bank with digitized programs including hybrid and virtual labs, national skills certificate centers, organizing skills competition, TVET research and publication, and various leadership, advocacy and other capacity building courses.

The government is well-positioned to transform its TVET and skills development system to be more inclusive, flexible, demand driven and aligned with the labor market. The sixth government led by President Samia Suluhu Hassan is introducing reforms in education and training with an aim to upgrade the skills of all Tanzanians. The government

firmly embraced 10-year free and compulsory basic education which, if implemented well, will lay the foundation for continuous education and training in TVET. For TVET, the government pledges to improve access, quality and relevance of all existing programs as well as introducing new vocational streams at secondary level. Challenges and opportunities are both abound.

The policy note provides timely analysis, perspectives, and broad brushed recommendations for the government to consider as it develops a medium and long term TVET strategy. More detailed recommendations are presented in the Summary of Recommendations and Suggestions section of the note. Obviously more stakeholder consultation is warranted especially for designing and implementing measures towards improving the governance and financing of TVET. At the same time, sustained capacity building is needed for TVET policy makers and providers to create a conducive environment for enhanced institutional autonomy and accountability.

✔ **Strengthening the national TVET system stewardship and policy coherence** by improving coordination of various MDAs through a working level inter-ministerial steering committee with clear roles and responsibilities. At the same time, it is important to fully staff and strengthen the technical capacity of the lead MDAs of MoEST and NACTVET in executing its mandates.

✔ **Improving inclusive access and providing equity-based and industry relevant programs** that target poor, rural, and vulnerable segments of the population. Successful country systems tend to have between 25% to 50% of upper secondary and tertiary enrollment in TVET. Successful pilots implemented in the last phase of NSDS can be scaled up, including the skills development funds, the bursary schemes for the vulnerable youth, and fee waiver for pregnant girls and young mothers pursuing skills development. At the same time, innovative programs leveraging the latest ICT can be piloted to broaden the access of TVET.

✔ **Strengthening industry links and quality assurance** to ensure demand-driven relevant TVET programs are implemented across the board at the system level; at the same time institutionalizing strong internal quality assurance for programs to reflect up to date occupational standards, trainers to meet both academic and skills requirements, workshops and labs align with the industrial requirements within each and every TVET institution.

✔ **Ensuring sustainable public financing and promoting performance-based financing** for TVET and skills development. If TVET is truly a priority, it's financing needs to be consistently reflected in the government spending. Globally, countries tend to dedicate between 10-15% of public education spending to TVET. Government could consider adopting unit cost-based capitation grants for public TVET programs, at the same time promoting performance-based financing to encourage excellence and implementation of national priority programs. The Centers of Excellence (COE) and Flagship Institutes that promote institutional autonomy and industry links are promising approaches that are currently being piloted and can be scaled up.

✔ **Reviewing the allocation, transparent use, and the impact of the SDL**, which is high in Tanzania and could be improved to better benefit the TVET sector and employer-based training. The recommendations will guide the operational modalities including functionality of sub-funds of the SDL or other funds set up in different sectors.

✔ **Reviewing the national tertiary fee structure to potentially lift the fee caps for higher education and technical education programs** to relieve the public finance pressure and create a more conducive environment for private provision. Coupled with this is the need to strengthen the autonomy and accountability of public providers.



INTRODUCTION

Tanzania has the fourth largest population in Sub-Saharan Africa, with 62 million inhabitants as of 2022. The population is growing at a rate of 3.2 percent and projected to reach 78 million in 2030. It is a young nation with 19.6 percent of the population ages 15–24 and a population with a median age of 18. Every year over 800,000 young people enter the labor market with low academic qualifications. A significant proportion of them have dropped out of the formal education system at primary or O-level secondary education. These youth have low academic qualifications and few employable skills, and hence they face a difficult transition to the labor market.

The government recognizes the importance of education and skills for economic and social development and is keen to tap the strengths of the youth population bulge. One approach has been to embark on reforms in the technical and vocational education and training (TVET) sector as an integral part of the national Five-Year Education Sector Plan (2016/2017 to 2021/2022) and the National Skills Development Strategy (NSDS) (2016/2017 to 2025/2026). These reforms have been designed in consultation with stakeholders and prevailing best international practices to produce more TVET graduates with skills to meet the demands of the labor market.

Development partners have been supporting the implementation of the NSDS. For example, the World Bank, through two ongoing programs, Education and Skills for Productive Jobs (ESPJ) and East Africa Skills for Transformation and Regional Integration Project (EASTRIP), have been providing technical and financial assistance to strengthen Tanzania's TVET system and to expand TVET coverage, especially in priority sectors defined by the national Five-Year Education Sector Plan and the NSDS. The sectors include agriculture, tourism and hospitality, energy, transport and logistics, construction, and information and communications technology (ICT).

Over the last five years, TVET in Tanzania has expanded significantly with annual enrollment growing at more than 10 percent per year. In 2022, there were 530,000 students enrolled in the country's 1,324 public and private TVET institutions, including 440 technical institutions, 830 vocational institutions and centers, and 54 folk development colleges (FDCs), enabling students to pursue formal certificates, diplomas, degree programs, and short-term demand-driven programs (NACTVET 2023). Though still small relative to the population, the size of the TVET skills sector is almost three times that of the higher education sector in Tanzania.





There have also been commendable efforts to strengthen the TVET system. Reforms have been carried out or recently incubated in Tanzania with varied success, such as the Skills Development Levy (SDL), with significant contribution from employers to serve as an integral part of Tanzania's skills financing, streamlining quality assurance, establishing skill sector councils in priority sectors, developing national qualifications framework and occupational standards, strengthening links with private sector, implementing a Skills Management Information System (SMIS), and establishing a Skills Development Fund (SDF) managed by Tanzania Education Authority (TEA) under the Ministry of Education, Science and Technology (MoEST). Tanzania levies 4 percent of wage bill from employers with four or more employees, the highest in the world according to an International Labour Organization (ILO) study. However, these reforms are largely at the system level and have yet to be taken to scale at the operational levels to generate significant impact at the beneficiary level.

The policy note aims to review the progress to date, analyze the ongoing challenges at system- and service-delivery levels, as well as to offer recommendations on the way forward. It examines evidence from both the demand side of the labor market and the supply side of the skills system, and it benchmarks Tanzania with examples of relevant fellow East African countries as well as others from around the world.

The note complements the “Improving Basic Education Learning Outcomes” Policy Note (World Bank 2023), which discusses the challenges faced in foundational learning in Tanzania. Basic numeracy, literacy, and socioemotional skills are the fundamental skills that students acquire during their basic education. These skills form the foundation upon which further education or vocational training can build. There is a wealth of evidence that demonstrates the critical importance of foundational skills in achieving academic success and lifelong learning. According to UNESCO (2022), strong foundational skills in reading, writing, and mathematics are essential for students to access higher-level learning opportunities and participate effectively in modern societies.

The note provides a foundation for the ongoing dialogue between the Government and the World Bank on the upcoming pipeline program, the Education and Jobs for Productive Jobs II, which focuses on skills development. The note seeks to have a broad, positive impact on all stakeholders within the TVET sector, by serving as a common reference point. Recommendations are provided to facilitate collective engagement and foster a shared understanding among various actors, including TVET providers, industries, and development partners.





ECONOMIC AND EMPLOYMENT STRUCTURE AND LABOR FORCE

ECONOMIC AND EMPLOYMENT STRUCTURE

Agriculture, manufacturing, and services³ are the three major economic sectors in Tanzania, and they collectively contributed 90 percent of GDP in 2021. More specifically, agriculture makes up 26 percent; manufacturing constitutes 29 percent; and services, which includes tourism, contributes 34 percent of GDP (Statista 2023; World Bank 2023).

Over time, while there has been a slight shift in employment toward service and manufacturing sectors, agriculture remains the most significant sector, employing 62 percent of the total labor force as of 2020 (figure 1). The service sector, which includes tourism, represents 30 percent of

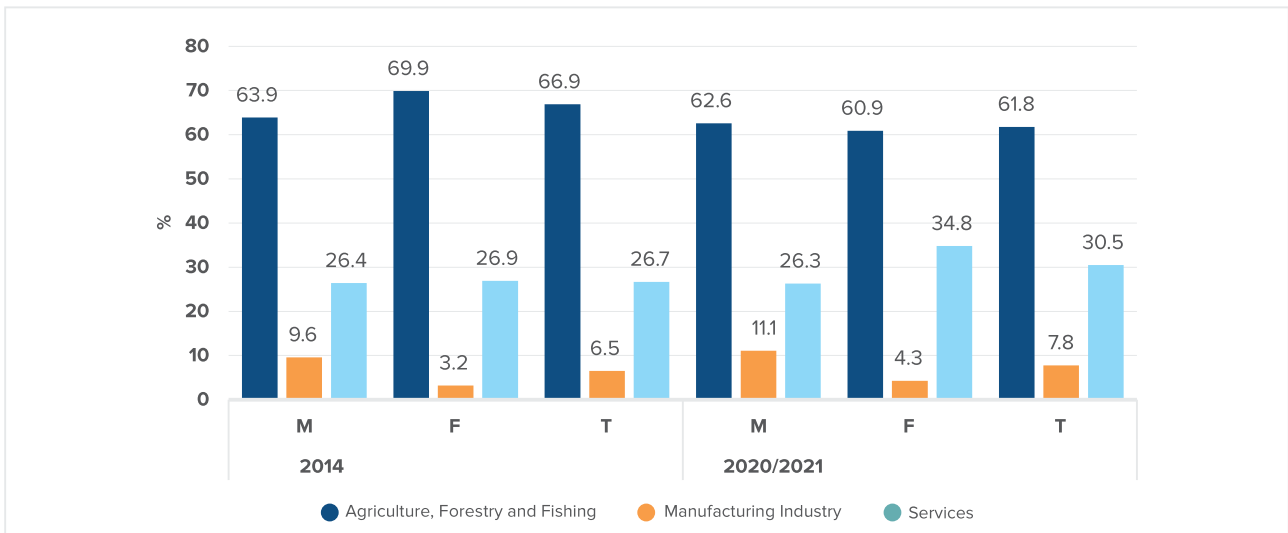
the total labor force, while manufacturing includes only 8 percent. From 2014 to 2020, there was a slight decrease in agriculture employment, from 67 percent to 62 percent; an increase in service sector employment, from 27 percent to 31 percent; and a slight increase in manufacturing employment, from 7 percent to 8 percent. Women's employment increased in manufacturing, from 3 percent in 2014 to 4 percent in 2020/2021, and in services, from 27 percent in 2014 to 35 percent in 2020/2021, while their agricultural activities declined from 67 percent in 2014 to 61 percent in 2020/2021.

3. Agriculture includes agriculture, forestry and fishery. The service sector also includes tourism in addition to government, insurance, education, banking, retail, and social services.

Majority of the workers in agriculture, tourism and fisheries are unskilled and have not gone through the formal education system. They include peasants, tour drivers, fishermen etc., they don't have skills

relevant to their activities. There is a critical need for colleges around the community to focus on providing skills and reskilling the community through short courses related to the community activities.

Figure 1: Employment by industry, 2014 and 2020/2021



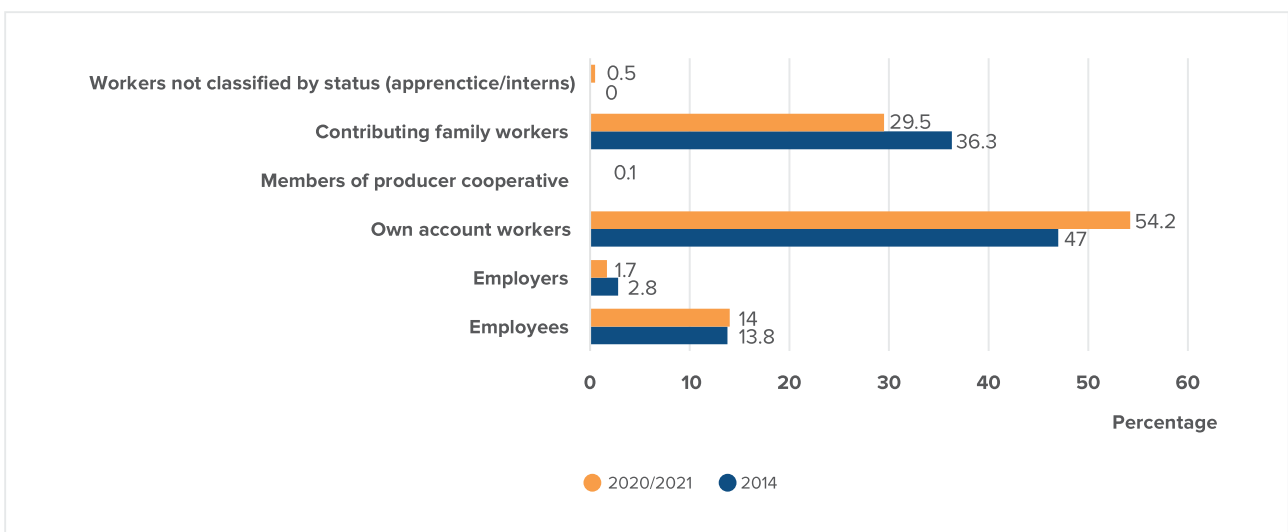
Source: NBS 2014 and 2022.

Note: Data include workers ages 15 and older.

Formal wage employment has witnessed a minimal increase of 0.2 percentage points from 13.8 percent in 2014 to 14.0 percent in 2020/2021. Own account

workers or self-employed category has significantly increased from 47.0 percent in 2014 to 54.2 percent in 2020/2021 (see figure 2).

Figure 2: Percent of total employment by status, 2014 and 2020/2021



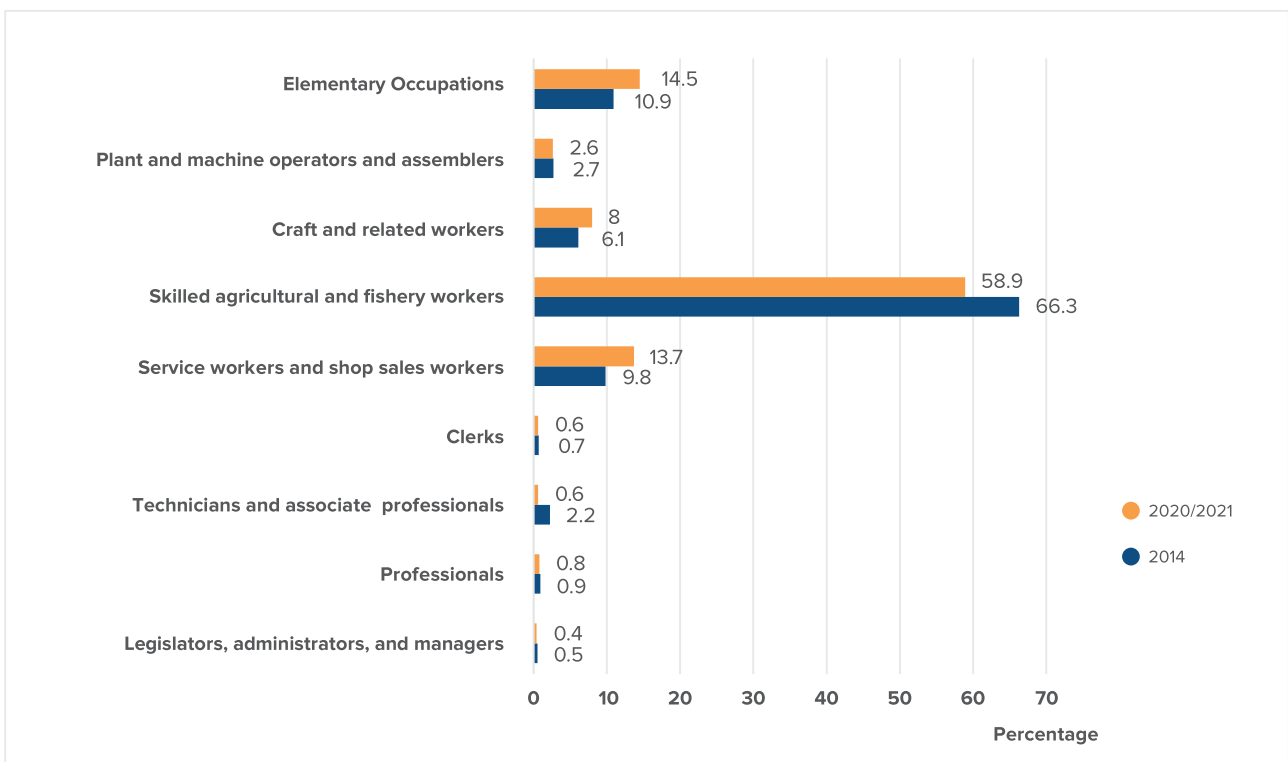
Source: NBS 2022.

The share of employment for more highly skilled occupations has declined from 2014 to 2020/2021.

Skilled agriculture and fishery workers decreased from 66.3 percent in 2014 to 58.9 percent in 2020/2021 (see figure 3). Employment of technicians and associate professionals declined from 2.2 percent in 2014 to 0.6 percent in 2020/2021. On the other hand, over the same period of time, the share of workers in elementary occupations increased from 10.9 percent

to 14.5 percent. The decline in the share of skilled workers in agriculture and fishery occupations, as well as technicians and associate professionals, is alarming. It could mean that the quality of jobs may be declining, there is a shortage of skills in these occupations, or a combination of both. If this trend is not addressed, these sectors will experience decline in productivity and competitiveness.

Figure 3: Percent of total employment by occupation, 2014 and 2020/2021



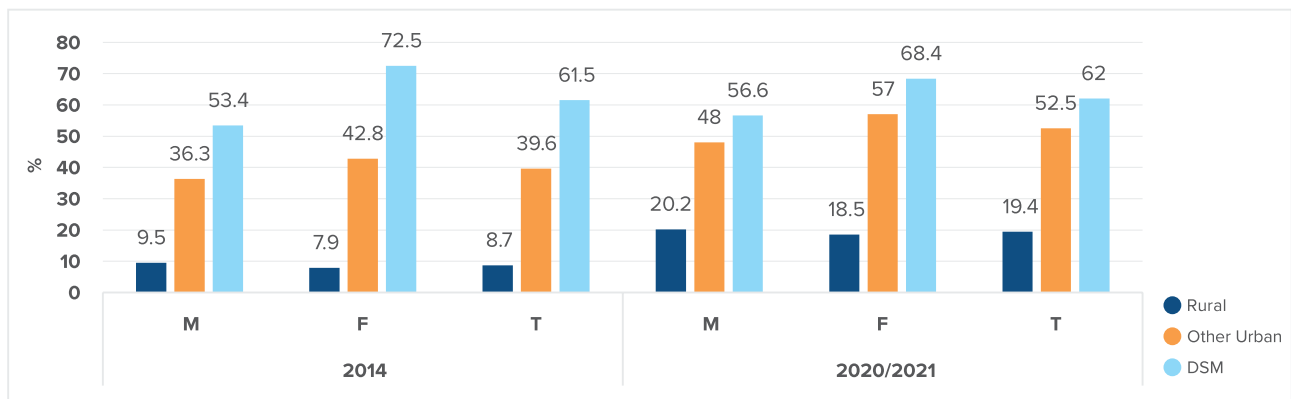
Source: NBS 2022.

Total employment in the informal sector remains high, especially in Dar es Salaam.

Informal employment has been increasing in rural and some urban areas since 2014, with the exception of Dar es Salaam. In rural Tanzania, informal sector employment increased from 22 percent in 2014 to 29 percent in 2020/2021, especially in male employment, which shifted from 10 percent in 2014 to 20 percent in 2020/2021 (see figure 4). Female employment also

increased, from 8 percent in 2014 to 19 percent in 2020/2021. The increase in employment can also be seen in some urban areas where the informal share of employment increased from 40 percent in 2014 to 53 percent in 2020/2021. Dar es Salaam, however, experienced a significant decrease in informal employment from 73 percent in 2014 to 68 percent in 2020/2021.

Figure 4: Percent of total employment in the informal sector, 2014 and 2020/2021



Source: NBS 2022.

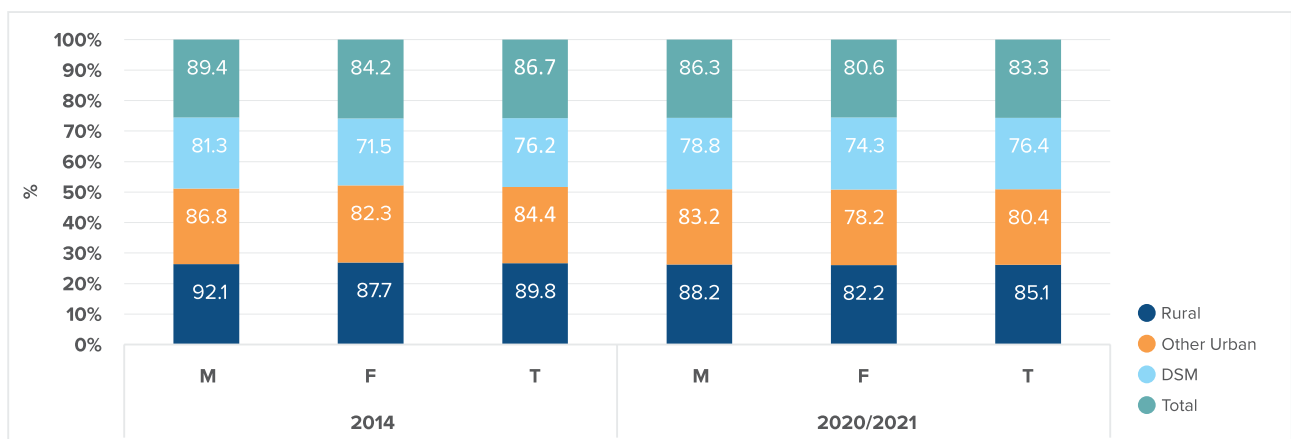
Note: Data include workers ages 15 and older.

LABOR FORCE PARTICIPATION AND CHARACTERISTICS

Labor force participation is high in Tanzania (83.3 percent) and relatively stable over the last few years. Rural labor force participation is the highest at 85.1 percent and includes own account farming. However, labor participation rates (LPR) for mainland Tanzania have decreased from 86.7 percent in 2014 to 83.3 percent in 2020/2021 (see figure 5). While

Dar es Salaam maintained its LPR at 76.2 percent in 2014 and 76.4 percent in 2020/2021, labor force participation in some urban areas declined from 84.4 percent in 2014 to 80.4 percent in 2020/2021. There has also been a slight decline in rural areas, from 89.8 percent in 2014 to 85.1 percent in 2020/2021.

Figure 5: Labor participation rate, 2014 and 2020/2021



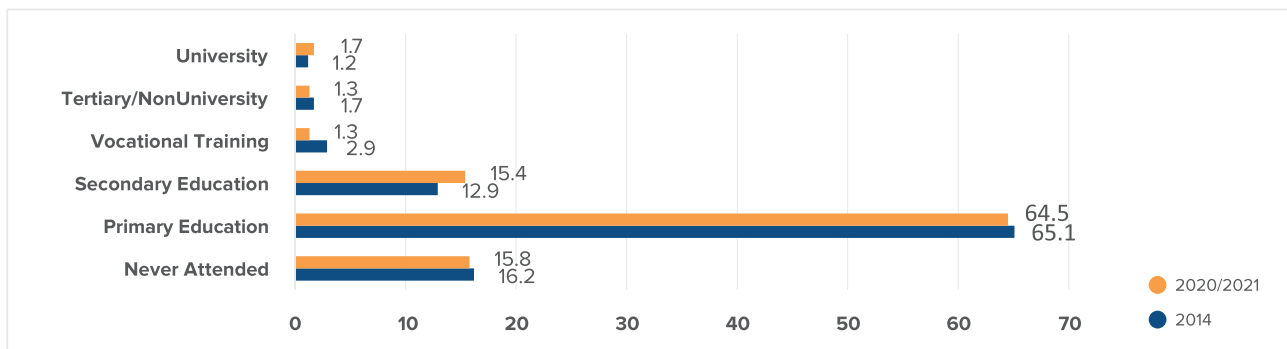
Source: NBS 2022.

Note: Data include workers ages 15 and older.

Tanzania labor force's average level of education increased slightly from 2014 to 2020/2021. The proportion of labor force with a university education increased from 1 percent in 2014 to 2 percent in 2020/2021. There was also an increase in workers who had a secondary level of education, climbing

from 13 percent to 15 percent. However, over the same period of time, while the proportion of the labor force with only primary education or who never attended school declined, there were also fewer in the labor force with tertiary / nonuniversity and vocational training education levels (figure 6).

Figure 6: Percent of labor force, by level of education and area, 2014 and 2020/2021



Source: NBS 2022.

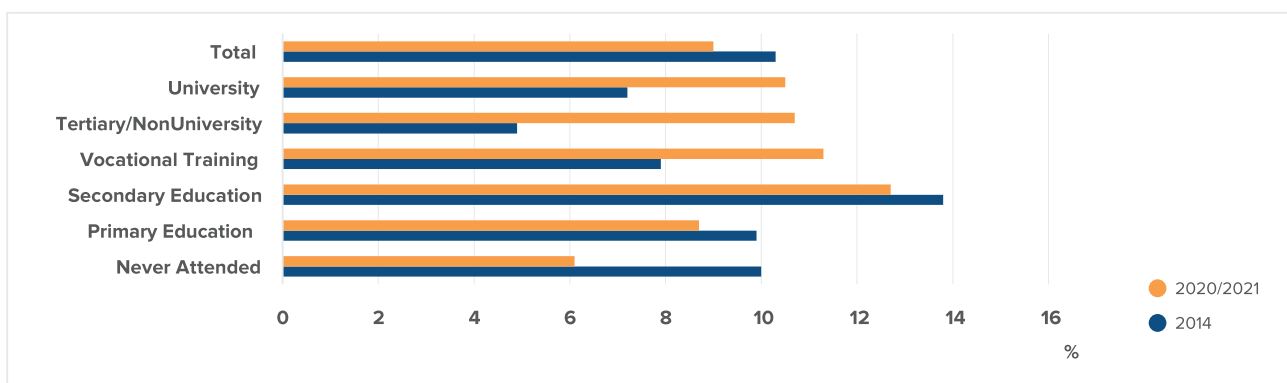
Note: Data include workers ages 15 and older.

The data show a concerning trend of a negative correlation between the level of education and employment (figure 7). Individuals with higher education are more likely to face unemployment. The data reveal that the unemployment rate for individuals who never attended school decreased from 10.0 percent in 2014 to 6.1 percent in 2020/2021. Similarly, those who completed primary education saw a decline in unemployment rates from 9.9 percent in 2014 to 8.7 percent in 2020/2021. However, individuals who completed secondary education have a higher unemployment rate than those who never attended school or just completed primary education.

The findings, which are consistent with other research, suggests that a lack of suitable job opportunities and a mismatch between the skills of

job seekers and employer demands contribute to the high rates of unemployment among educated individuals (OECD 2021). These issues underscore the need for policy makers to focus on improving the labor market outcomes for individuals with higher levels of education. This could include initiatives to improve the education and TVET systems to deliver higher quality education and relevant skills, such as training programs, apprenticeships, and targeted career guidance to better match the skills of educated individuals with available job opportunities. The TVET sector has also started addressing this issue by developing Occupational Standards with the involvement of the industries and international experts from countries with best practices to make sure that the produced workforce meets both local and international labour market demands.

Figure 7: Unemployment rates by level of education, 2014 and 2020/2021

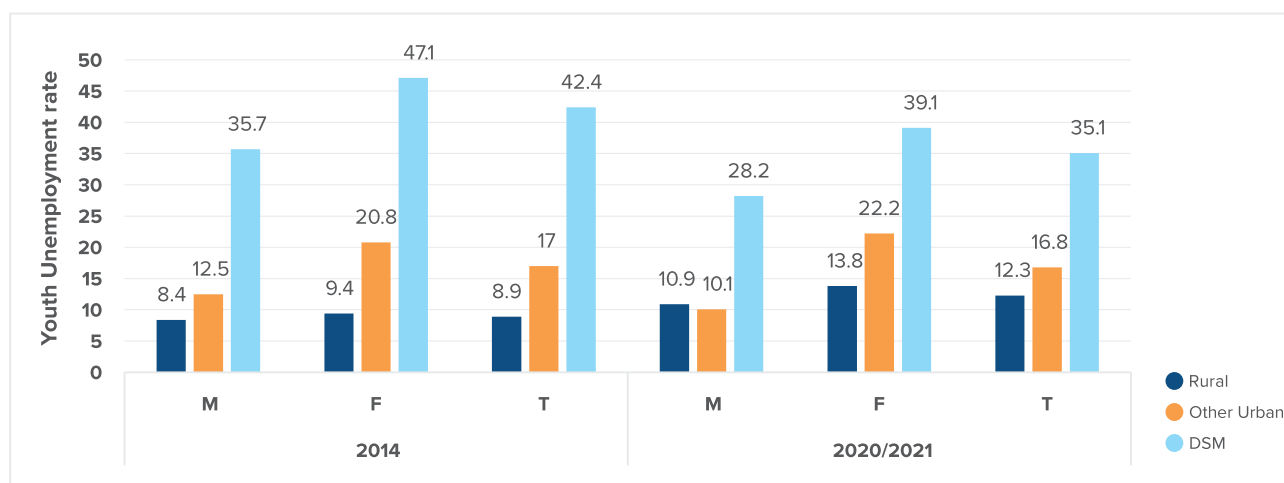


Source: NBS 2022.

The youth unemployment rate increased slightly from 13.7 percent in 2014 to 14.7 percent in 2020/2021. Rural areas have experienced an increase in unemployment of youth ages 15–24, from 8.9 percent in 2014 to 12.3 percent in 2020/2021. However, in cities such as Dar es Salaam, there has

been a decline in youth unemployment, from 42.4 percent in 2014 to 35.1 percent in 2020/2021 (see figure 8). Other urban areas have also witnessed a slight decline in youth unemployment from 17.0 percent in 2014 to 16.8 percent in 2020/2021.

Figure 8: Youth unemployment rates, 2014 and 2020/2021



Source: NBS 2022.

Note: Data are for unemployment rates of youth ages 15–24.

The trends of employment and labor force illustrate a low level of coordination between formal education and the needs of the labor market in Tanzania. The agriculture sector continues to employ the majority of those in the labor force, and employment in the informal sector increased from 2014 to 2020/2021, while the proportion of the labor force with tertiary / nonuniversity and TVET training has declined. During the same time period, youth unemployment increased slightly. While the education levels of workers have

increased overall, the share of employment in more highly skilled occupations has declined. Overall, the trends in employment and the labor force suggest that there is a need for a more coordinated and targeted approach within the TVET system. Government and stakeholders can work together to leverage the potential of the TVET system to promote economic growth, create formal employment opportunities, and enhance Tanzania's competitiveness in response to evolving labor market dynamics.



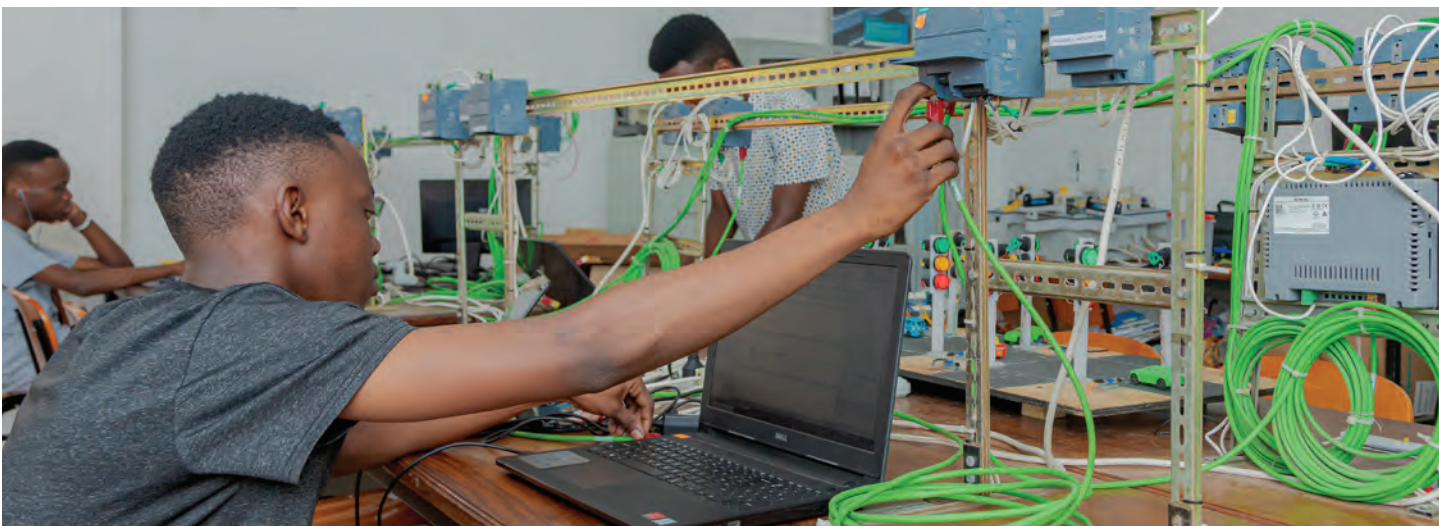
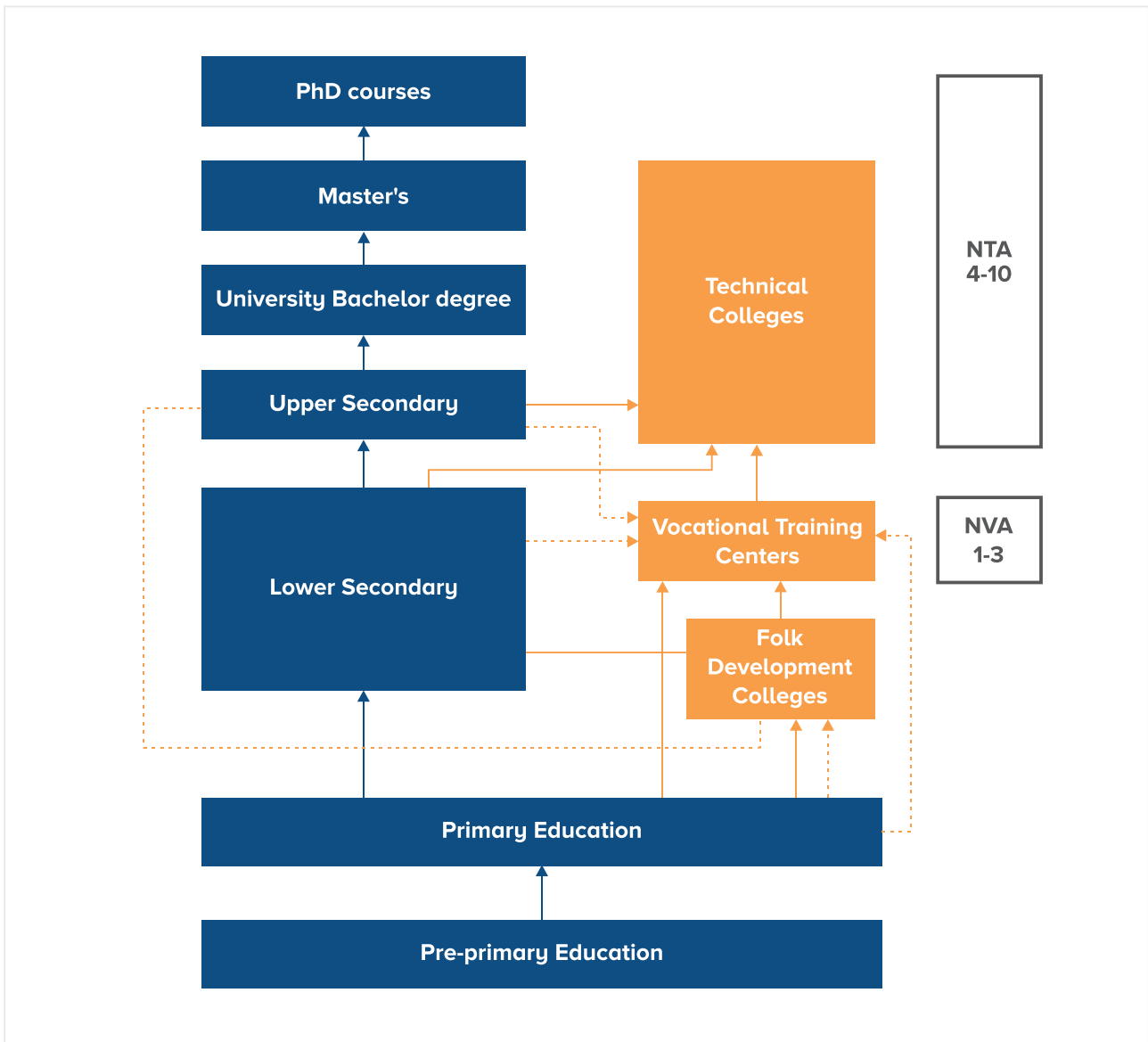
TANZANIA TVET AND SKILLS DEVELOPMENT SYSTEM

OVERVIEW OF STRUCTURE AND GOVERNANCE

The TVET and skills development system in Tanzania complements the general education and provides formal, nonformal, and informal training to youth as well as adults who are outside of the general education system. TVET is provided through the folk development colleges (FDCs), vocational training centers (VTCs), and technical colleges (TCs). After the seven years of primary education, students can enroll in either O-level secondary education or vocational training in FDCs and VTCs. After O-level secondary education, students can proceed to A-level secondary, teacher education, vocational training in VTCs or TCs. Those at the advanced level can opt for universities or TCs. FDCs are technically open to anyone who can read and write to acquire skills (figure 9).

Tanzania has also developed a national qualifications framework (NQF). The framework that covers the entire education system from Basic Education Awards National Vocational Awards, National Technical Awards, University Awards, Professional Awards as well as Recognition of Prior Learning (RPL) and nonformal education obtained from other training providers. This NQF, when fully operational, will provide flexibility by allowing graduates to move to other education system across the framework vertically as well as horizontally (figure 9).

Figure 9: Education/TVET structure



Governance of TVET and skills development is shared among several ministries and regulatory agencies. The Ministry of Education, Science and Technology (MOEST) is the lead ministry for TVET, and the TVET Training Division of MOEST is responsible for developing TVET policies, guidelines and standards. This division oversees the management of TVET institutions, including specialized technical secondary schools, several TCs and FDCs, which focus on primary school dropouts and out-of-school youth. Other line ministries such as agriculture, finance, health, labor and youth, and tourism also manage their own training institutes.

The Vocational Education and Training Authority (VETA), established by a 1994 Act,⁴ is responsible for provision of vocational education and training (VET) at post primary and post lower secondary levels. Formerly, VETA was both a regulatory agency and a major training provider, until 2022, when its regulatory mandate was shifted to the National Council for Technical and Vocational Education and Training (NACTVET). VETA has now remained with one function as a provider of vocational education and training and currently it owns 45 vocational training centres (VTCs).

The National Council for Technical and Vocational Education and Training (NACTVET) is the national regulatory body of TVET. It was previously known as NACTE, which was first established by a 1997 Act.⁵ NACTE was responsible for technical education and training (TET) at postsecondary, non-tertiary level, which comprises courses for technicians and professionals. NACTE became NACTVET when it absorbed the regulatory function of vocational education and training in 2021. NACTVET and its zonal offices register and accredit all public and private training centers at different levels, but NACTVET is not a training provider.

The Prime Minister's Office–Labour, Youth, Employment and Persons with Disability (PMO-LYED) is responsible for labor market policies, employment services, and labor market analysis. Its priorities are to promote job creation and employment, especially for small businesses and entrepreneurs, and to facilitate employment especially youth, women and people living with disabilities. It is responsible for development of skills through apprenticeships, internships, recognition of prior learning (RPL), and reskilling/upskilling based on the demand from the sectors. The PMO-LYED implements its own work-based skills development programs in areas such as internships for graduates, formal apprenticeships, RPL through informal apprenticeships, skills upgrades, and other modular or short-term programs. The PMO-LYED has a major skills development fund which has appropriation from the Skills Development Levy (SDL) contributed by the employers. This Ministry is also responsible for skills forecasting and labour market information needed by training providers in order to enable them to provide relevant skills needed by the labour market.

The abovementioned institutions are crucial stakeholders in influencing and implementing reforms to the TVET and skills development system in Tanzania. The strength of the system depends on how well these institutions can coordinate their efforts to deliver on their mandates to support the TVET system. The National Skills Development Strategy (NSDS) has envisaged a high-level National Skills Council (NSC) that would provide stewardship and cohesion. Currently there is no overarching coordination mechanism that brings together these entities, NACTVET can be used to coordinate the duties of Skills Councils using its Subject Boards Committees up until when the National Skills Council is well established.

4. The Vocational Education and Training Act (1994) aims to improve TVET provision and management, and it has established the Vocational Education and Training Authority (VETA).

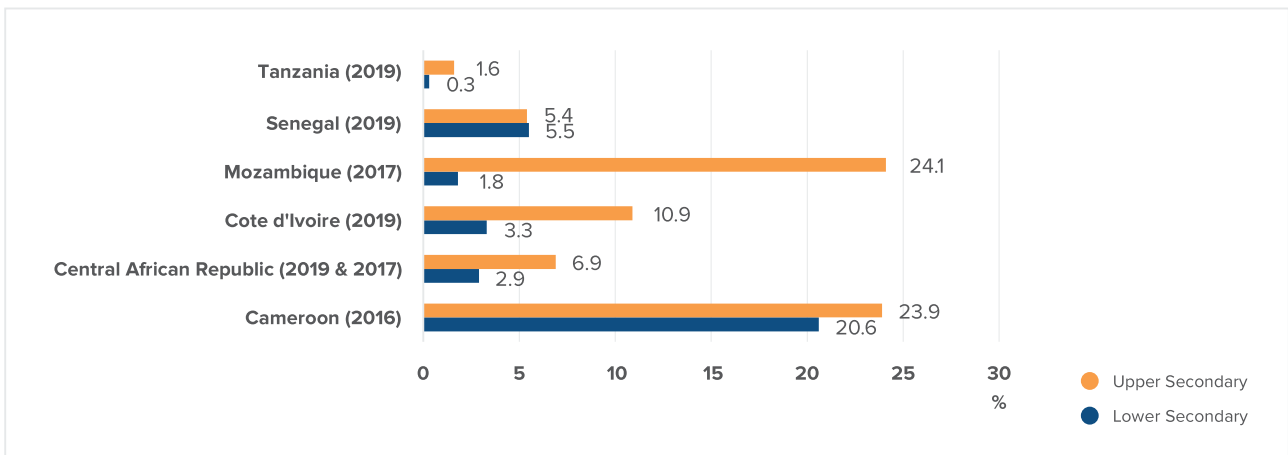
5. The National Council for Technical Education (1997) has established the National Council for Technical Education (NACTE), which oversees technical education at tertiary / nonuniversity institutions.

ACCESS AND EQUITY IN TVET

The TVET sector experienced significant expansion during the last decade, but the overall TVET coverage remains very limited with a gross enrollment ratio (GER) of only 2.5 percent in 2020/2021. While there has been an increase in TVET GER, more could be done to improve access. A total of 553,200 students are enrolled in TVET programs in Tanzania, including VTCs, TETs, and FDCs. The leading providers are the VTCs under VETA whose

800 public and private VTCs have enrolled 68.8 percent of the total TVET students, while the TET programs have enrolled 28.5 percent of the students, and FDCs only 2.7 percent of students. However, the coverage of TVET in proportion to the growing youth population remains low, especially in secondary TVET enrollment ratios and in comparison, to several other countries (figure 10).

Figure 10: Secondary TVET enrollment ratio



Source: World Bank Gender Data 2023.

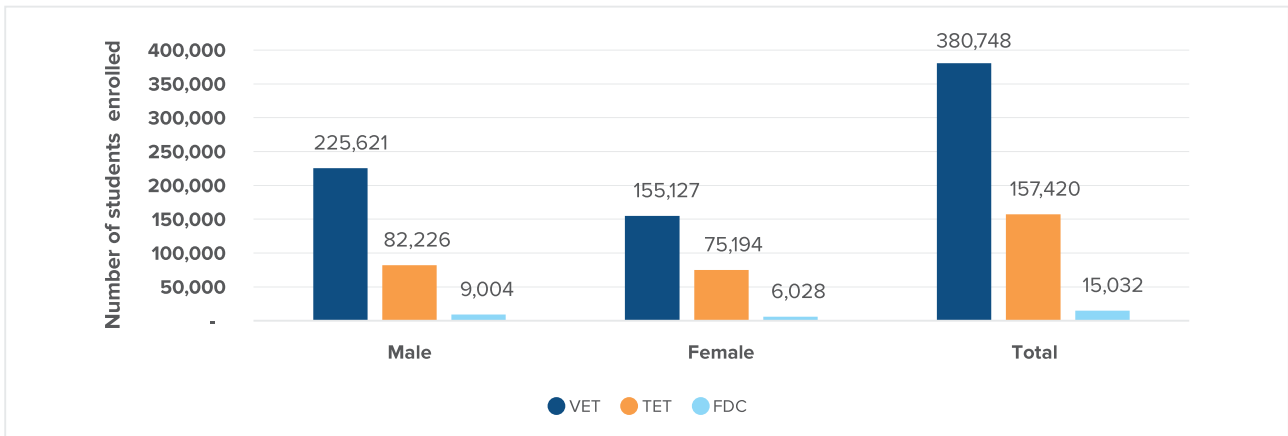


More than two-thirds of TET students (67.0 percent) enrolled in the following three programs in 2021/2022: business (24.3 percent), medicine and health sciences (23.5 percent), and social science (19.0 percent). In the same year, the least selected programs were humanities and arts (0.1 percent), mining and earth sciences (0.2 percent), physical sciences and mathematics (0.4 percent), tourism and hospitality (0.7 percent), and environmental science and forestry (1.0 percent).

The TVET sector tends to be male-dominated but is making good progress in reducing gender disparity.

Due to strong efforts by the government, the Gender Parity Index (GPI) showed TVET improved from 0.49 in 2017/2018 to 0.69 in 2020/2021 for VET. GPI revealed less steady improvement in TET programs, which increased from 0.86 in 2017/2018 to a high of 0.98 in 2019/2020 and then dropped slightly to 0.95 in 2021/2022. Over the same period, GPI improved from 0.54 to 0.73 in FDCs (figure 11).

Figure 11: Enrollment in TVET programs, by gender, 2020–2021

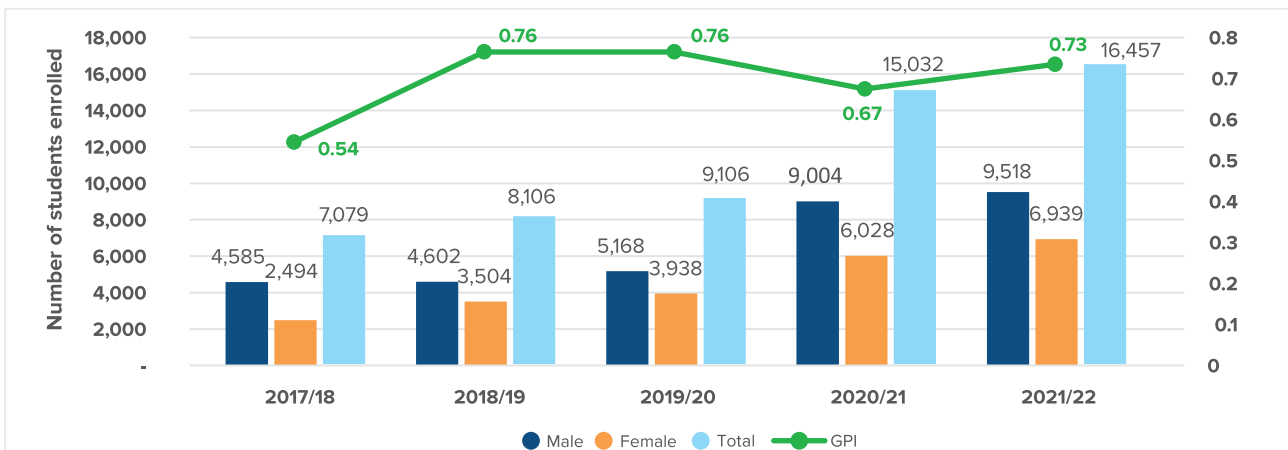


Source: MOEST 2021a.

FDCs enroll out-of-school youth and dropouts from primary and lower secondary schools, including girls seeking alternative skills pathways after pregnancy and childbirth. The government with support from the ESPJ program has expanded the FDC network, devising innovative measures, such as

providing day care centers and waiving fees for poor youth, to encourage youth to receive skills training that will help improve their economic opportunities. As a result, enrollment nearly double from 7,079 in 2017/2018 to 16,457 in 2021/2022 (see figure 12).

Figure 12: Number of students enrolled in FDC, by gender, 2017–2022



Source: MOEST 2022a.

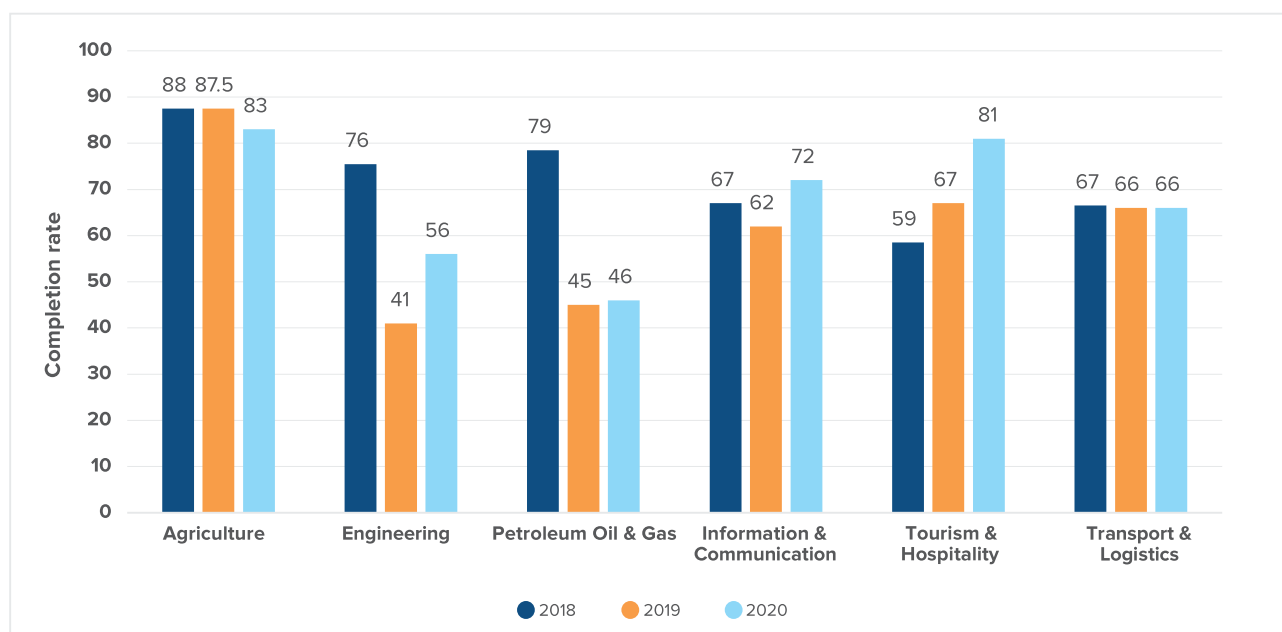
QUALITY AND RELEVANCE OF TVET PROGRAMS

Completion Rates and Graduate Employment Rates

Completion rates help evaluate the quality and relevance of TVET programs, but engineering and petrol and gas programs have the lowest completion rates of below 50 percent (figure 13). Completion rates from 2018 and 2020 have been found to vary across programs. Program completion rates for some sectors have improved significantly, such as for tourism and hospitality, which has risen from 59 percent in 2018 to 81 percent in 2020. Over the same period of time, there has also been improvement in information and communication programs; completion rates rose from 67 percent to 72 percent.

Other programs have seen a decline. Completion rates in agriculture programs have dropped slightly, moving from 88 percent in 2018 to 83 percent in 2020. Engineering program completion rates have dropped even more significantly, from 76 percent in 2018 to 46 percent in 2020. Completion rates in petrol and gas programs dropped from 79 percent in 2018 to 46 percent in 2020. The decline in the completion rates for petrol and gas and engineering programs is most concerning since the government has been heavily investing in these sectors.

Figure 13: Completion rate in VET programs, 2018–2019

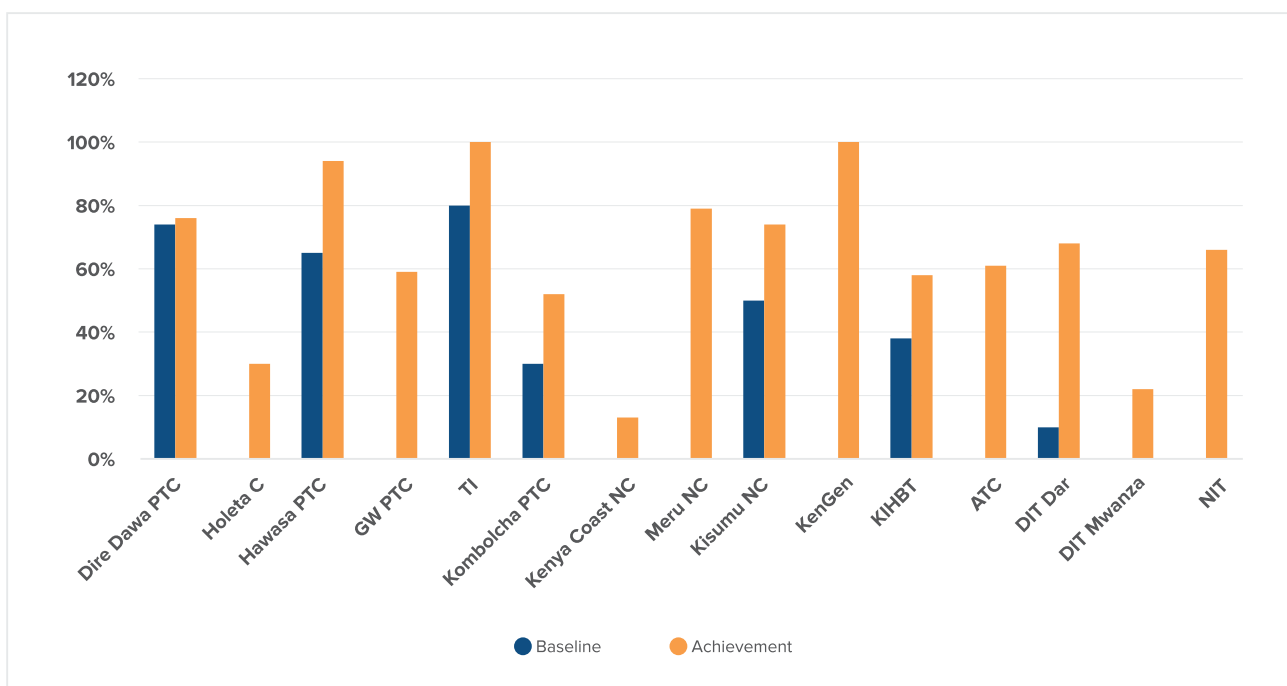


Source: MOEST 2021b.

Tracer studies provide useful information about the strengths and weaknesses of TVET programs as they relate to labor market outcomes. While studies carried out by VETA in 2018 indicate that 67 percent of the graduates are employed within one year of graduation, studies commissioned under the World Bank’s East Africa Skills for Transformation Project (EASTRIP) reveal a more complicated set of findings, notably the disparity in employment rates across various sectors and institutions. With the support of the World Bank’s EASTRIP program, the regional flagship TVET institutes (RFTIs) regularly monitor the employment rate of their graduates, and their 2022 data show significant improvement in the work placement

of graduates from Arusha Technical College (ATC), National Institute of Technology (NIT), and Dar es Salaam Institute of Technology (DIT). However, while these three Tanzania institutions achieved a graduate employment rate of more than 60 percent, others such as the DIT Mwanza only achieved 20 percent. Moreover, the employment rates of the abovementioned institutions include own account self-employed businesses, and it would be useful to conduct an assessment on these businesses to explore the strengths and challenges faced by graduates, as these businesses transition to mid-level employers/sizeable ventures that employ other workers (figure 14).

Figure 14: Graduate employment rate in EASTRIP RFTIs within six months of graduation



Source: EASTRIP Results Framework 2022.

Note: RFTIs: Regional Flagship Technical Vocation Education and Training (TVET) Institutes.

Tracer studies indicate weak links between providers of TVET education and industry jobs. When relatives, friends or/and colleagues are the main source for graduates to find jobs, this may reflect a mismatch between the TVET providers’ skills training and industry needs. The tracer study from DIT

Mwanza revealed that 81 percent found employment through relatives, friends or/and colleagues. For ATC Kikuletwa, among the 227 graduates who responded to the study, many cited two primary sources of information as the means to finding employment: relatives, friends or/and colleagues (41

percent); and the internet (33 percent). Referrals/school endorsements (5 percent) were the least used source of information among the ATC graduates in their search for employment, while 8 percent used industrial links to secure employment. Among NIT graduates, 63 percent preferred relatives and friends as the sources of employment information, while 14 percent relied on newspapers, television and radio. Also, 11 percent used government websites and other education platforms, while 8 percent reported using industry links during training and 3 percent relied on social media. The DIT Dar es Salaam tracer study reveals that 43 percent of respondents mentioned that they secured employment through friends, relatives or colleagues, 24 percent searched government or company websites, 12 percent used industry links, and 10 percent relied on social media networks.

Salaries reported in tracer studies provide another measure to evaluate TVET programs. The NIT tracer study found that 87 percent of graduates were paid below 1 million T Sh regardless of the employer, and only 13 percent of graduates received a salary ranging between 1–2 million T Sh per month. DIT Mwanza reported that 100 percent of respondents earned below 1 million T Sh per month. In contrast, the DIT Dar es Salaam tracer study had a wider range of salaries: 55 percent of respondents earned below 1 million T Sh per month, 38 percent earned between 1–2 million T Sh per month, 2 percent earned between 2–3 million per month, and 4 percent earned more than 3 million T Sh.

Tracer studies show limited access to professional training for TVET graduates. Tracer studies indicate that after graduating, there is little continuous training among graduates. For example, 80 percent of graduates from DIT Mwanza did not participate in further training while only 20 percent said they were involved with further trainings after graduation. Sixty-seven percent of graduates from ATC Kikuletwa did not participate in further trainings, while 88 percent of NIT graduates reported that they did

not have funds to support them in further trainings, and an additional 9 percent said training was not a priority. In the DIT Dar es Salaam tracer study, 63 percent of respondents said they did not participate in further training after graduation, with 68 percent indicating the reason was due to a lack of funds to pay, 10 percent mentioning they did not find training a priority, and 10 percent stating they found no relevant training course available. Thirty-seven percent attended further training, while 56 percent attended professional short courses, and 44 percent enrolled in bachelor's degree programs.

There is low job satisfaction among graduates of TVET programs. The DIT Mwanza tracer study found that 48 percent of graduates were not satisfied with their jobs, 43 percent reported they were somewhat satisfied, and only 9 percent were satisfied with their current employment / self-employment. Among NIT graduates only 33 percent were satisfied, while 67 were dissatisfied with their current employment. Among respondents of a DIT Dar es Salaam tracer study, less than 1 percent mentioned that they were somewhat satisfied, and 99 percent skipped the question: “Are you satisfied with your present employment/self-employment?”

Employers prefer ordinary diploma and certificate holders, indicating their preference for practical skills gained from TVET programs. The tracer study from ATC Kikuletwa found that 45 percent of the employers who responded to the study preferred hiring ordinary diploma graduates, followed by 23 percent who favored certificate holders, and 13 percent who preferred those with bachelor's degrees. Results from DIT Mwanza revealed that 62 percent preferred hiring workers with certificates and ordinary diplomas while only 1 percent preferred bachelor's degrees or above. Given this employer preference, there is great opportunity and potential for TVET programs to provide a more robust, skills-driven education to meet industry needs.

Industry, Government, and TVET Provider Links

A demand-driven TVET system is one that regularly adapts programs to the evolving needs of the labor market and industrial requirements for skilled labor.

Recognizing the role of the government in economic and education planning, many countries have adopted a “triple helix” model of TVET governance, which refers to a set of interactions between industry, government, and academia (TVET providers) (Etzkowitz and Leydesdorff 1995).

The Tanzania NSDS previously called for the establishment of a National Skills Development Council (NSDC) and Sector Skills Councils (SSCs).

However, due to the concerns of financial sustainability and lack of consensus on its core mandates and composition, the NSDC has not been established. However, with support from ESPJ, the government has provided initial funding to establish Sector Skills Councils (SSCs) for each of the priority sectors. The SSCs will be chaired by the private sector and include a majority of its own members. They will function as intermediaries between the industry and TVET providers, as well as between providers and the government and regulatory units. Key expectations of SSCs are: (a) labor market intelligence to facilitate a clearer understanding of the skill needs for the sectors each SSC serves; (b) practical guidance to employers on training policy and practice to enable development of coherent view on policy developments; (c) development of standards based on qualifications, competence-based training programs and tailored training provision to meet respective sector needs; and (d) capacity development to respond to sector demands and on-the-job training needs. However, questions remain regarding the sustainability of the SSCs after the initial ESPJ funding and the strength of private sector ownership of SSCs.

In Tanzania, a decentralized and more sustainable model of industry links at the provider level is emerging. With support from the EASTRIP project, the

government adopted a flagship TVET model, which is based on a five-year performance contract signed with competitively selected TVET colleges. This TVET model is designed to pilot institution-based reform that will strengthen long-term capacity for market-oriented training. With holistic interventions such as incorporating industry into college governance and management, undertaking labor market feasibility studies and graduate employment tracer studies, partnering with global leaders of TVET colleges to renovate curriculum and staff capacity, and building state-of-the-art training facilities through Strategic Investment Plans (SIPs), this model of TVET development is already generating a high level of ownership and optimism. It is also cultivating a culture of change for TVET programs. Enrollment in the four flagship TVETs has more than doubled since the beginning of the model program.

A notable approach to implementing the model has been the installation of Industry Advisory Committee (IAC) directly at each TVET institute, or even at the faculty or program level.

More than 50 percent of IACs members come from leading industries. IACs play an active role in renewing training programs and linking management, faculty, and students directly with employers. This model is being replicated in Tanzania in the higher education sector with support from the new International Development Association (IDA)-financed Higher Education for Economic Transformation (HEET) which supports 19 public universities and institutes to reorient its programs and strengthen capacity through a five-year University Strategic Investment Plan (USIP). Further, other TVET systems supported by EASTRIP including Kenya and Ethiopia are also scaling up the approach nationwide. Figure 15 illustrates a female trainee as aircraft maintenance engineer in NIT and a solar powered handicap trolley designed by ATC.

Figure 15: EASTRIP flight engineer and handicap trolley designed by ATC



Source: EASTRIP Monthly Bulletin (left) and photo by author (right).

This model approach reorients the TVET sector to be demand driven at the program and provider level. The integration between school and industry can happen at multiple fronts: work and study; knowledge and practice; industry and education;

school and enterprise; enrollment and employment; and teachers and industry technicians. A global leader in this approach is the Singapore Institute of Technical Education (box 1).

Box 1: How Singapore Transformed the TVET



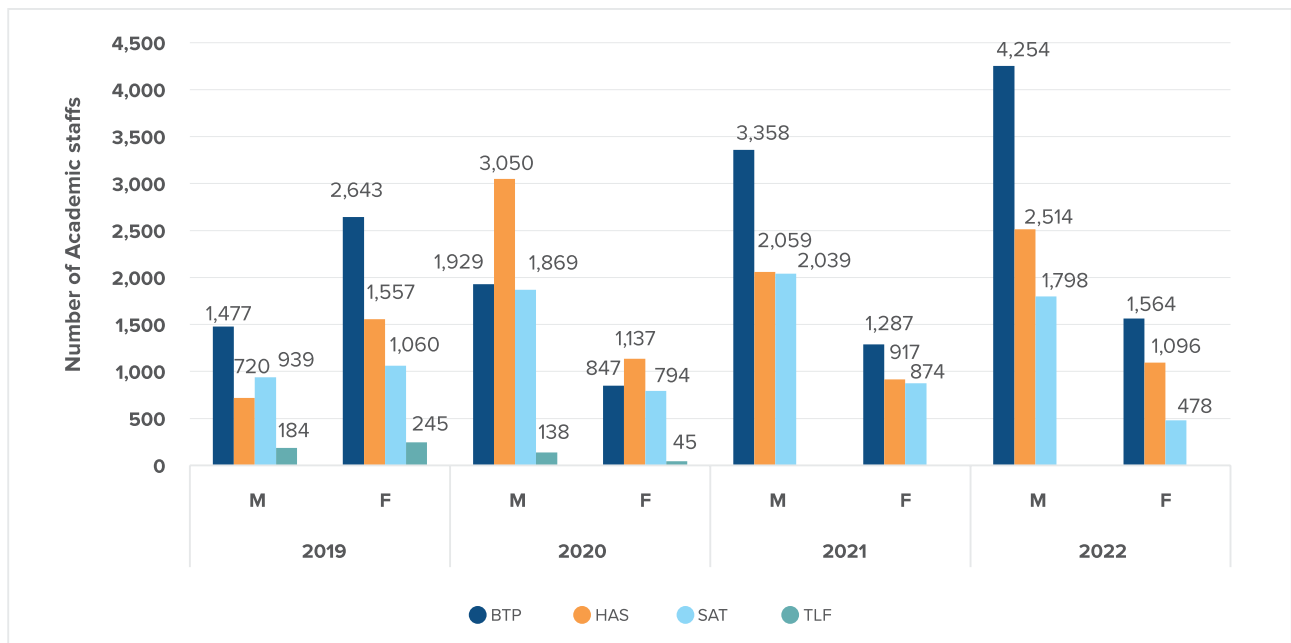
The Singapore Institute of Technical Education (ITE) is an esteemed postsecondary education institution and statutory board that operates under the Ministry of Education. In addition to offering vocational education to secondary school graduates, ITE provides apprenticeship programs for skilled trades and grants diplomas in vocational education to proficient technicians and workers in support roles across various professions. These professions include accounting, architecture, business administration, engineering, and nursing. Strategically, ITE has moved away from the term “vocational” to encompass and consolidate vocational, technical, and adult education services within a single ITE system, spread across three campus colleges. Its primary focus is to deliver technical education to students who have completed 10 years of basic education and fall within the bottom 25 percent of academic rankings. ITE places great emphasis on collaboration between industry and the government, ensuring its curriculum remains responsive to evolving needs. Over the course of two decades, it has developed into a world-leading institution for TVET. Notably, ITE was honored with the inaugural IBM Innovations Award in Transforming Government (2007) administered by the Ash Institute for Democratic Governance and Innovation at Harvard’s Kennedy School of Government. This further acknowledged ITE’s exceptional contributions and achievements.

Qualifications and Competencies of TVET Trainers

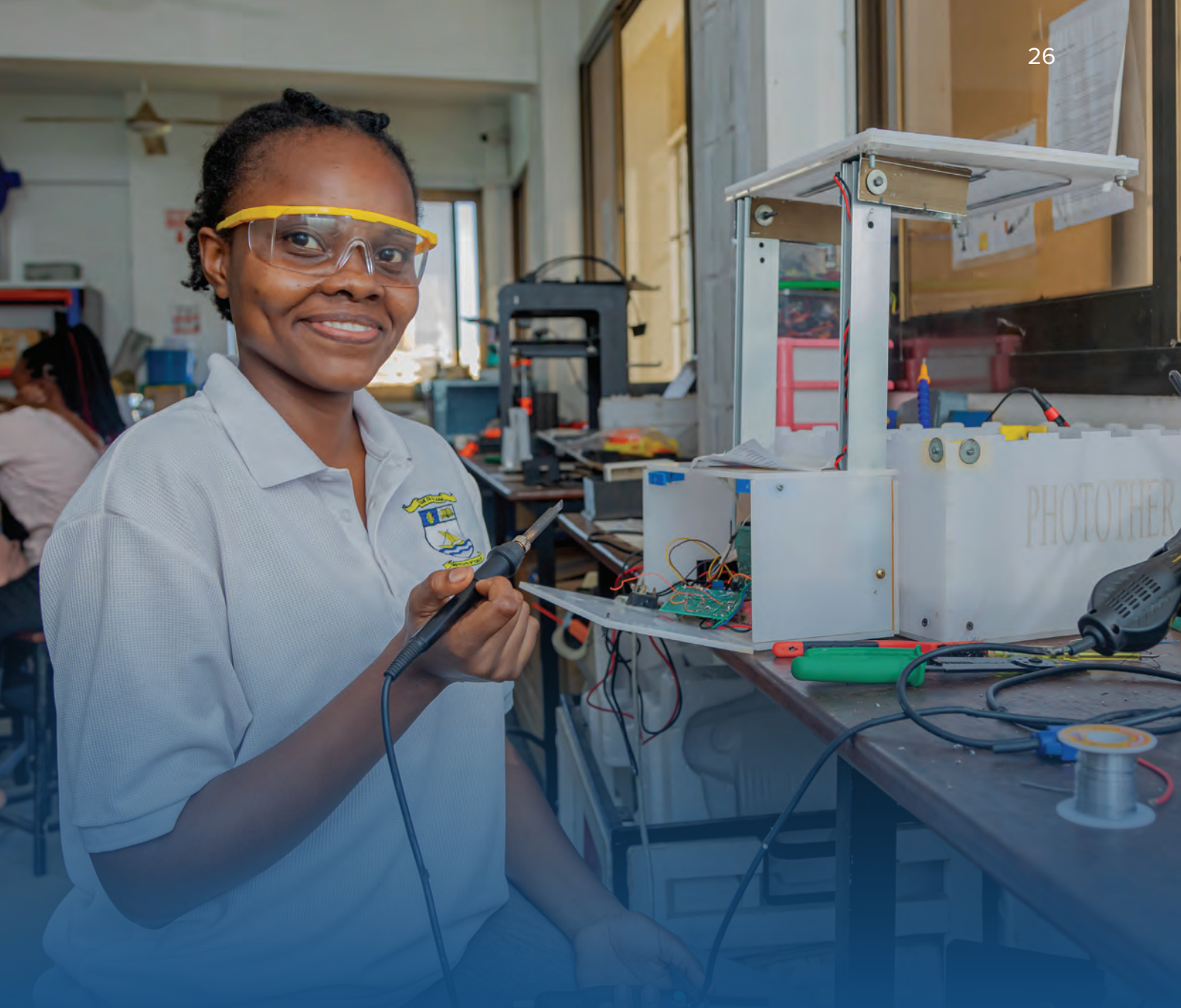
There is room to recruit more TVET trainers, particularly female trainers. According to the TVET Indicator Report (MOEST 2021b), the prevailing student/trainer ratio in VET is 1:25 while in TET it is 1:10. These ratios are higher than the national standard of 1:16 for VET and 1:8 for TET, and the government has sought to increase academic staff. The number of academic staff under TET programs rose from 8,825 in 2018/2019 to 11,704 in 2021/2022, but the GPI for academic trainers dropped significantly from 1.65 in 2019 to 0.36 in 2022. While male academic staff has almost tripled from 3,320 in 2019 to 8,566 in 2022, female academic staff has decline from 5,505 in 2019 to 3,138 in 2020. Academic staff in business, tourism and planning (BTP) programs has increased from 4,120 in 2019 to 5,818 in 2022 as well as health and allied sciences (HAS) programs which rose from 2,277 in 2019 to 3,610 in 2022 (see figure 16).

Gender disparity is higher among VET than TET academic staff. The GPI among VET academic staff is 0.23, while for TET it is 0.68. The TET female academic staff constitutes 40 percent of total staffing, with 18 percent having bachelor's degree and 9 percent having master's degree. VET's female academic staff constitutes 18 percent of total staffing, with 1 percent having master's degree, 3 percent bachelor's having degree, and 6 percent having ordinary diplomas. The gender disparity of academic staff in the VET system persists, and the government could recruit more women to reach gender parity on staff. More female staff would help motivate and encourage female trainees to perform better during and after their studies.

Figure 16: Number of TET academic staff, by gender, 2019–2022



Source: MOEST 2019, 2020 and 2021a.



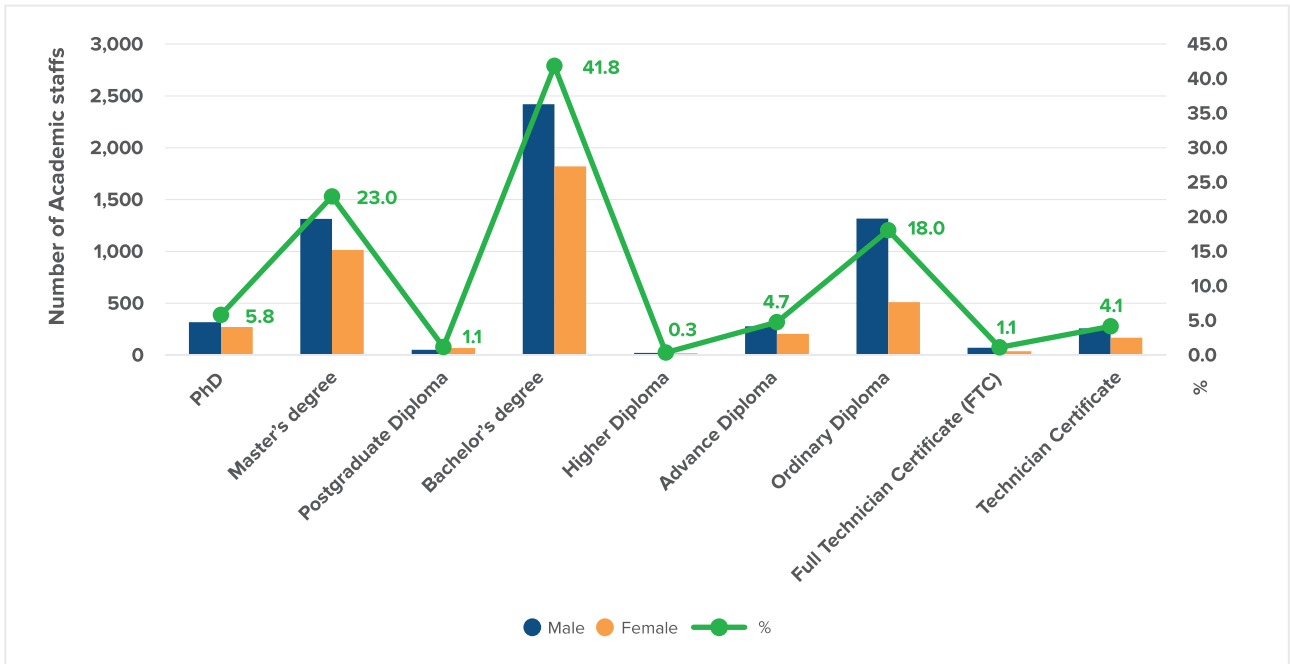
There is a need to upgrade the academic qualifications of staff, for both TETs and VETs.

More than half of TET academic staff hold bachelor's and master's degrees, while a vast majority of VET academic staff only have ordinary diplomas and technician certificates (see figures 17 and 18). TET academic staff have the following distribution of academic qualifications: PhD (5.8 percent), master's degree (23.0 percent), postgraduate diploma (1.1 percent), bachelor's degree (41.8 percent), higher diploma (0.3 percent), advance diploma (4.7 percent), and ordinary diploma (18.0 percent). The proportion of TET staff with skills certificates is very low: full technicians certificate (1.1 percent) and technician certificate (4.1 percent). Thirty-five percent of VET staff have ordinary diplomas, 31.9 percent have technician certificates, 18.1 percent have bachelor's degrees, and 6.0 percent have master's. VET academic staff with

PhDs make up only 0.3 percent of total staffing. There also needs to be gender parity in TVET academic staffing. Among the TVET staff, which totaled 761 in 2021, 81.4 percent were men while only 18.6 percent were women.

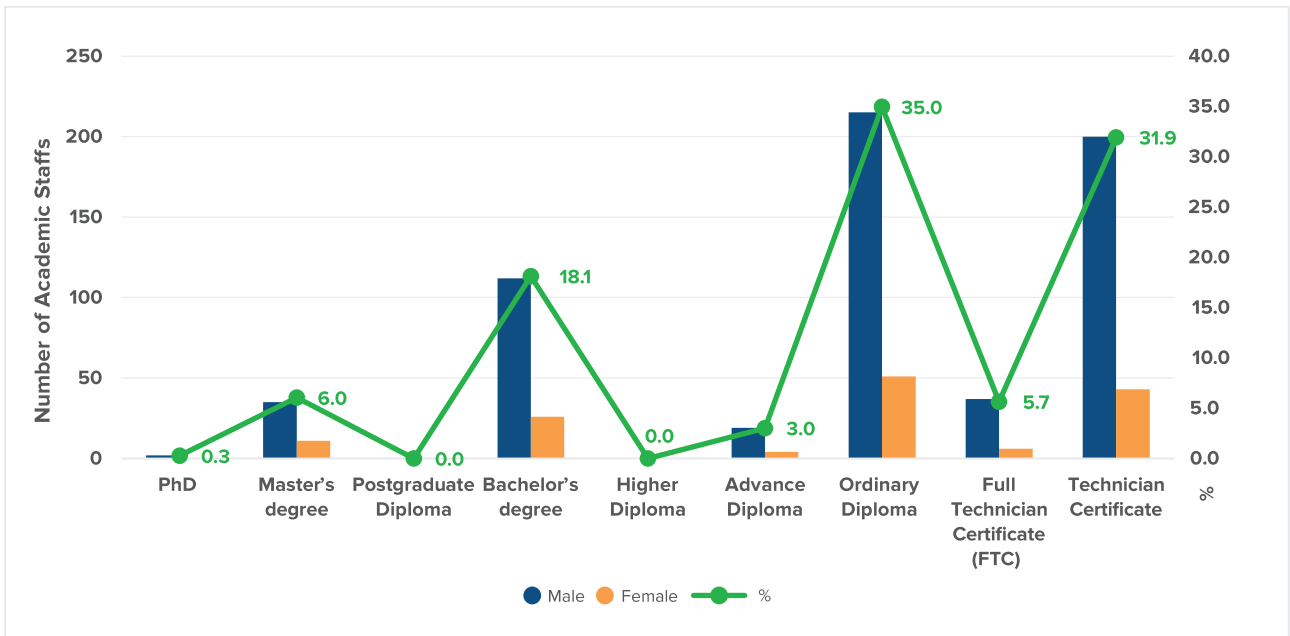
However, there is still a challenge of funds and schemes to support upkeep of certifications especially in professions which require industry attachments. Some professions do not have skills certificates. The Government through its training institutions is making efforts to ensure that TVET staff in disciplines such as Engineering, Architects, Quantity Surveyors, Aviation, Accounting, Procurement and others are skilled and certified. The Government is paying for TVET staff to undertake training for certifications, attendance to professional workshops/conferences and certification fees.

Figure 17: Number of TET academic staff, by level of education and gender, 2021



Source: MOEST 2021b.

Figure 18: Number of VET academic staff, by level of education and gender, 2021



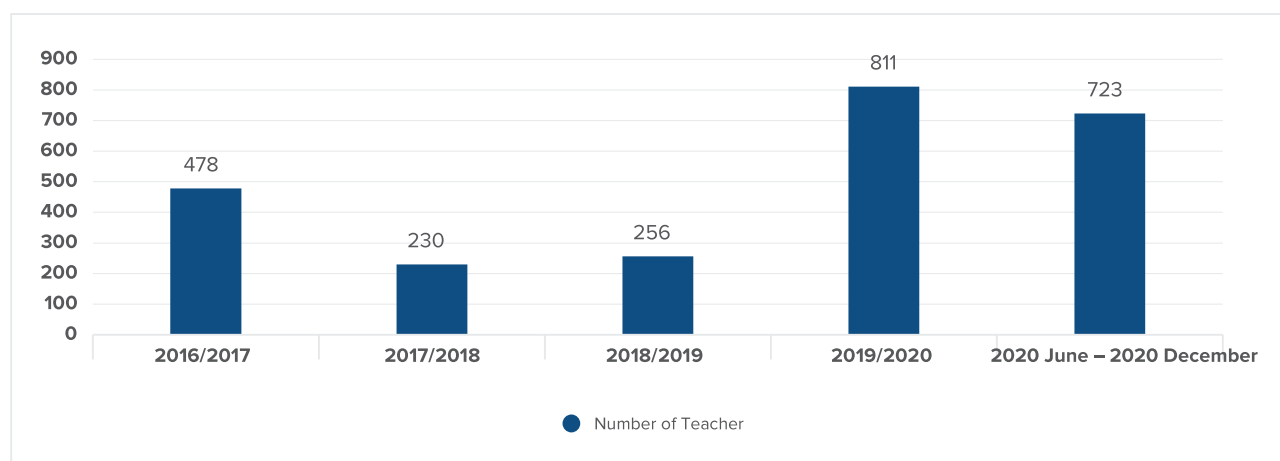
Source: MOEST 2021b.

TVET academic staff have limited access to in-service training or industrial attachment opportunities.

Continuous professional development for academic staff is important not only to help improve skills and knowledge of staff but also to benefit trainees. There is a mixed trend on the number of staff who attend in-service training annually. During 2017/2018 only 230 TET staff attended in-service training compared with 811 in 2019/2020. The number of VET academic staff who attended in-service training increased from 161 in 2018/2019 to 167 in 2019/2020. Male academic staff contribute the majority share with 78 percent

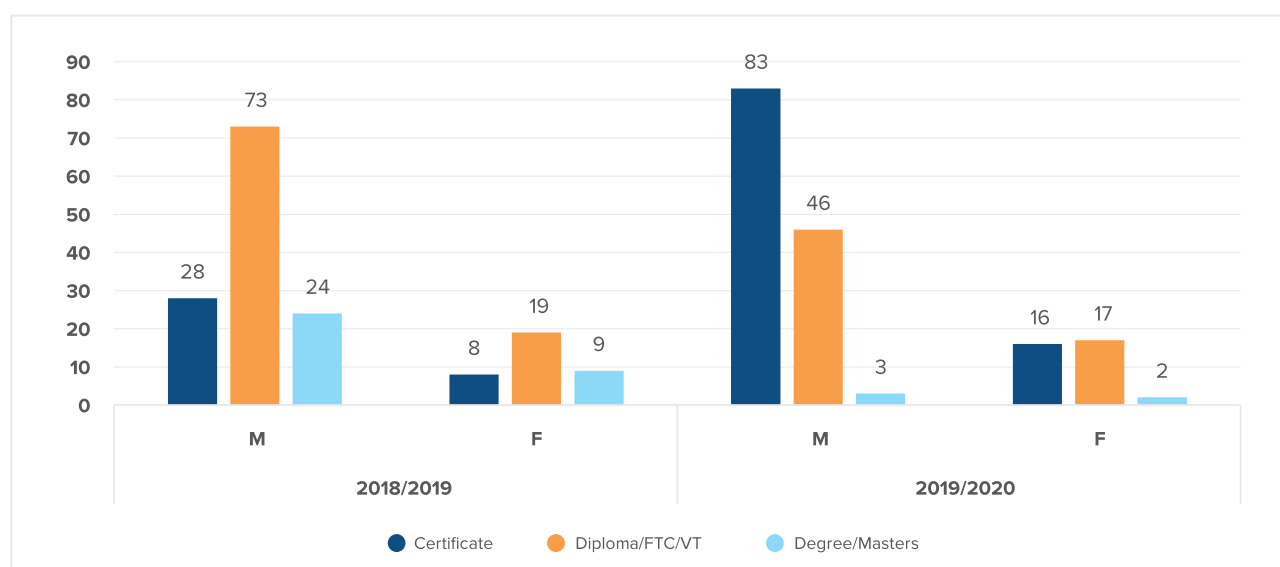
in 2018/2019 to 79 percent in 2019/2020. There is a decline of academic staff from diploma / FDCs / VTCs who attended in-service training from 57 percent in 2018/2019 to 38 percent in 2019/2020. On the other hand, there is an increase in share of academic staff with certificates who attend in-service training from 22 percent in 2018/2019 to 59 percent in 2019/2020. The situation is very alarming for degree/masters-level academic staff with only 3 percent attending in-service training in 2019/2020 compared with the 20 percent of degree/masters-level staff who previously attended in 2018/2019 (see figures 19 and 20).

Figure 19: Number of TET academic staff who attended in service training, 2016–2020



Source: MOEST 2021b

Figure 20: Number of VET academic staff who attended in service training, 2018–2020



Source: MOEST 2021b.

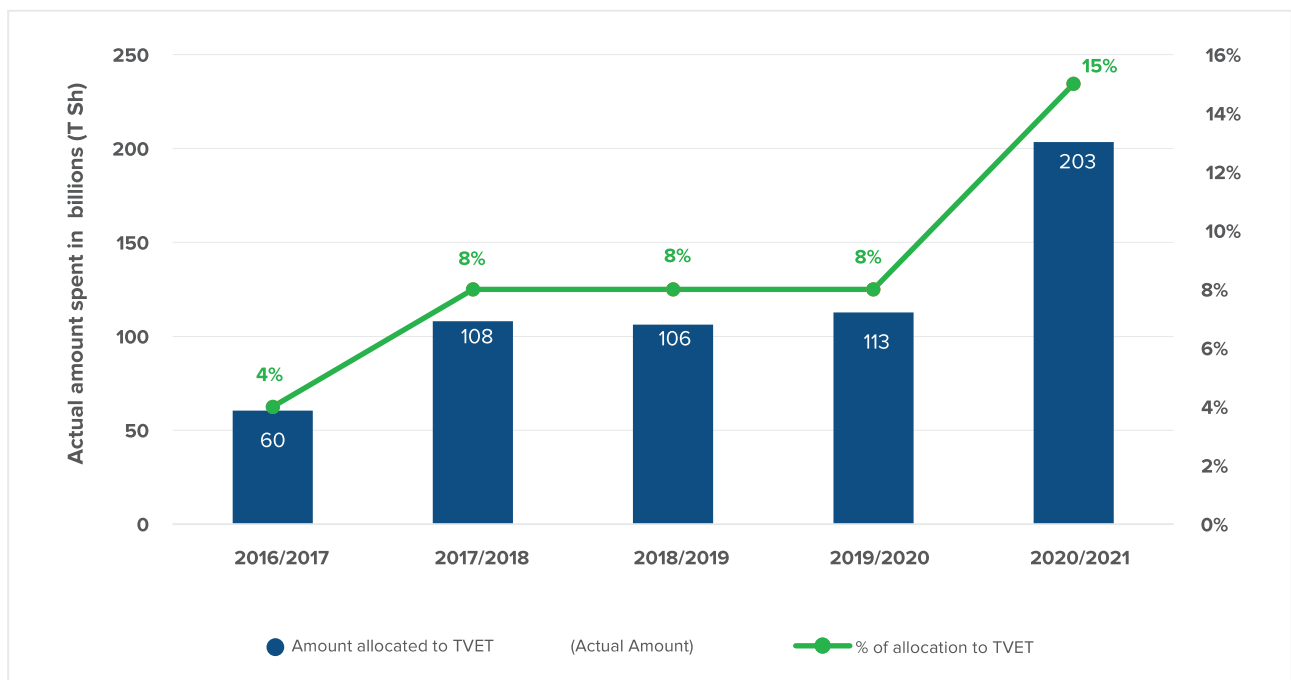
FINANCING OF TVET AND SKILLS DEVELOPMENT

Financing of TVET and skills development in Tanzania comes from the following main sources:

(a) the budget allocated by MOEST and other sector ministries, with recurrent expenditures including salaries and operational costs, as well as development expenditures mostly contributed by development partners; (b) income generated by training providers; and (c) a SDL paid by employers channeled through VETA and the PMO-LYED for skills development, and higher education student loans (which benefit only higher education students, not TVET students). It is high time now to make sure that SDL is directed to support middle level skills from short courses, certificates and diploma because they constitute the majority workforce required by the industry in Tanzania. It is also required to finance vocational education regulatory roles shifted to NACTVET from VETA, which was formerly financed by SDL when it was under VETA ambit.

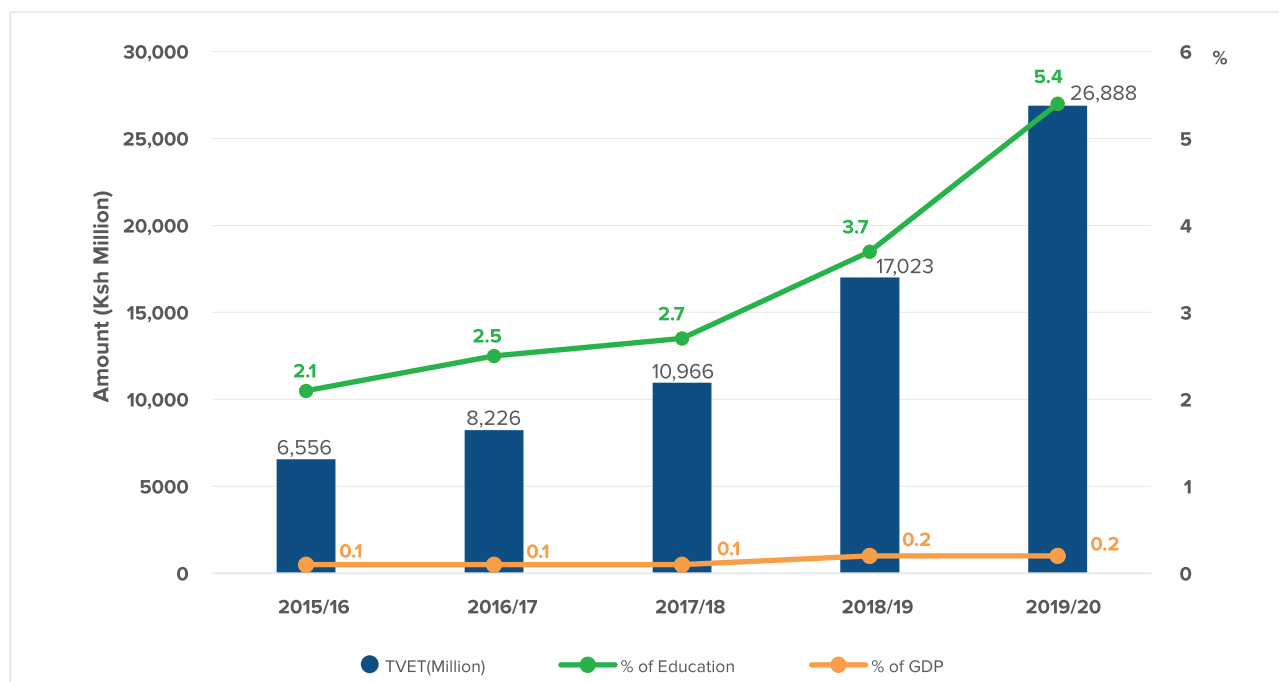
The proportion of government budget allocated to TVET has increased from 2016 to 2020, but it needs to be sustained and consistent. While the total government budgetary allocation to MOEST has remained steady at around 1.4 billion T Sh for the last five years, allocation to the TVET subsector has increased from 60.4 billion T Sh (4 percent of MOEST budget allocation) in 2016/2017 to 203.4 billion T Sh (15 percent of MOEST budget allocation) in 2020/2021 (MOEST 2021b). In nominal terms, the increase of more than 140 billion T Sh translates into a 236.8 percentage increase in a period of five years (see figure 21). This level of government spending on TVET is high, especially compared with Kenya which devotes about 5 percent of government spending on TVET (see figure 22). However, half of the total TVET spending in Tanzania is from development assistance. It is not clear whether the government will sustain such level of financing for TVET. Yet the Government's commitment is required to apportion its own source of revenue in particular SDL towards TVET.

Figure 21: Tanzania TVET actual spending, 2016–2021



Source: MOEST 2021b.

Figure 22: Kenya TVET spending

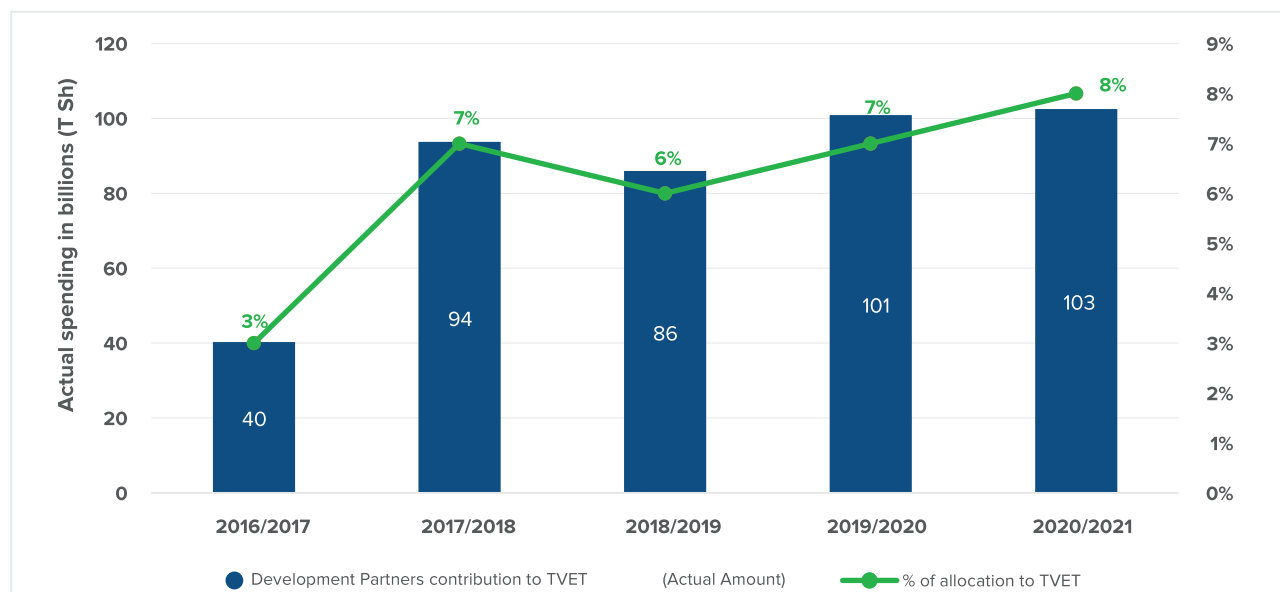


Source: Kenya MOE 2022.

TVET in Tanzania receives financial support from development partners. TVET Indicator Report (2021) indicates that total funds from external sources allocated to TVET increased from 40.4 billion T Sh in 2016/2017 to 102.5 billion T Sh in 2020/2021 (figure

23), indicating a 153 percent increase in the nominal development budget as well as reflecting high government commitment to develop TVET. The World Bank provides TVET financing through the ESPJ and the EASTRIP programs.

Figure 23: Development partners' contribution to TVET budget (actual amount), 2016–2021



Source: MOEST 2021b.

TVET institutions are engaged in income generation, but funds are limited and mostly come from student fees. While TVET providers can charge student fees, the fees are set by NACTVET and range from 1 to 3 million T Sh (US\$400 – US\$1,200) annually for a three-year ordinary diploma (NACTVET Guidebook). The fee structure for technical colleges has stagnated for a considerable number of years despite increasingly high cost of TVET programs, especially in engineering and technology. EASTRIP Regional Flagship Technical Vocation Education and

Training (TVET) Institutes (RFTIs) receive funding to develop short-term demand-driven programs and other income generation activities. There has been a sharp increase in the funds generated, especially in ATC and the NIT. However, generating income beyond the student fees is not yet a common practice and needs to be encouraged and regulated by the government. More autonomy can also be given to providers to set their own fee structure within certain parameters (table 1).

Table 1: Income generation in EASTRIP RFTIs

Institution	2018 (\$ million)	2022 (\$ million)
ATC	0.028	1.200
DIT Dar	0.250	0.300
DIT Mwanza	0.000	0.066
NIT	0.000	2.500

Source: EASTRIP Progress Report 2022.

The SDL of 4 percent wage bill in Tanzania is the highest in the world and shows the commitments from government and private sectors on skills development. The ILO has studied the SDL in 100 countries including eight Southern African Development Community (SADC) countries: Botswana, Malawi, Mauritius, Namibia, South Africa, United Republic of Tanzania, Zambia and Zimbabwe. It has found that SDLs range from 0.5 percent to 4 percent of payroll, averaging 1.0 percent. Tanzania's SDL is the highest in the region (at that time of the ILO study, the SDL in Tanzania was 4.5 percent) (ILO 2021). The Vocational Education Training Act of 2001 Cap 82 Section 14 mandates Tanzanian employers (with more than 4 employees) to contribute 4 percent of the wage bill toward the nation's skills development.

The SDL in Tanzania is channeled to HESLB, VETA, and the PMO-LYED for skills development, roughly in equal shares. The SDL is one of the main sources of financing for higher education loans, through the

Higher Education Students' Loan Board. One-third of the SDL provides need-based loans for students to pursue higher and technical education. However, these loans are only for university and technical college students enrolled in degree and above programs, not for vocational education students in certificate and diploma programs. Another one-third of the SDL is channeled to VETA to finance training provision. VETA receives 860,000 T Sh per student from SDL for meals and training materials. SDL funds represents 87.0 percent of VETA's income and is a large part of the budget of public VTCs. The final one-third of the SDL is provided to the PMO-LYED for its skills development programs.

While SDL was intended for enhancing skills and most skills required in the industry to boost employment and economic activities are TVET skills, yet students pursuing TVET programmes at the level of certificate and diploma are not beneficiaries of loan despite the fact that SDL is contributing to students loan for

graduates. If the Government continues to disburse a portion of SDL to HESLB, then , there is a need for TVET certificates and diploma students to benefit from loans.

Since NACTVET is now regulating the entire TVET Sector (technical and vocational education and training), there is a critical need for NACTVET to be considered for SDL in order to enhance their regulatory capacity for quality provision of TVET in the Country.

The Tanzania SDL does not refund employers for training directly provided. Among all of the eight SADC countries, Botswana and Mauritius provide their levy-paying employers with the highest direct return on their levy contribution, returning between 33.0 percent and 38.0 percent of the levy received to employers in the form of training reimbursement (ILO 2021).

SKILLS DEVELOPMENT FUND UNDER PMO–LYED AND MOEST (TEA)

The PMO-LYED operates a skills development fund scheme aimed at financing youth skills development. This program, funded by the SDL, encompasses apprenticeships, internships, RPL, and reskilling/upskilling. Over 118,415 youth have already benefited from this program, which operates under a public-private partnership (PPP) arrangement. As of 2023, more than 90 training centers are involved, with over 58 centers being privately owned. As part of the program's implementation, national guidelines for apprenticeship, internship, and RPL have been developed and are currently in use. Furthermore, over 681 vocational teachers from both private and public training centers have been trained to conduct RPL. The government, through the SKILL-UP Programme,⁶ has formalized skills of 19,759 youth (2,997 female and 16,762 male) in 10 occupations (MOEST 2022). The 10 occupations are welding and metal fabrication; electrical installation; auto body repair; motor vehicle mechanics; masonry and brick laying; pipe fittings; carpentry and joinery; design, sewing and cloth technology; food production; and food, beverage services and sales. However, a study has identified barriers in RPL programs, especially among informal construction workers. These barriers include workers' perceiving the RPL programs as a waste of time or

too complex. Workers also indicated that the RPL program was insufficient to meet their needs, was not aligned with their occupational standards, or required a minimum age requirement that was too high. The study also showed that workers had poor knowledge of the benefits of VETA centers and RPL certificates (Mbunda, Lello and Tesha 2020).

In 2016, to expand the scope of skills development and support the implementation of the National Skills Development Strategy (NSDS), the Government through MoEST established a new Skills Development Fund (SDF) and provided a mandate to Tanzania Education Authority (TEA) to manage the SDF . Among all Government agencies, TEA was chosen basing on its Education Fund Act No.8 of 2001, which provides a mandate to TEA to mobilize resources from various financiers and deploy to strategic projects. The TEA has extensive experience and the mandate to mobilize resources from a variety of sources including the private sector that are utilized to fund development and expansion of educational institutions at all levels. Moreover, TEA has long experience in managing education and skills development projects; while TEA's Board has a wider participation and representation of stakeholders from

6. The SKILL-UP Programme is a joint effort of the ILO and the Government of Norway.

various public and private sectors including financial institutions.

The TEA SDF, supported by the World Bank's ESPJ program, aims to enhance the development of a skilled workforce by increasing the number of individuals trained in relevant skills for entering the labor force. It is responsible for raising and managing education funds. The TEA SDF has four financing windows: (a) university level, (b) technical education and training, (c) vocational education and training, and (d) alternative training (informal). These financing windows cater to different skill levels and support training in key economic sectors, with a focus on the private sector and cost-sharing between firms and training providers. Three additional windows were added at mid-term review including e) Internship program, f) Innovative Training and E-Learning, and g) Bursary Scheme for Vulnerable Groups. Between the financial years 2018/2019 and 2022/2023, the TEA SDF facilitated the training of 48,794 (26,501 males and 22,293 females) Tanzanians who successfully completed various training programs across the country. Among these beneficiaries, 474 were people with disabilities and 600 youth from Tanzania Zanzibar.

TEASDF facilitated financing of: (i) capacity building of training providers through infrastructure development (minor rehabilitation/ construction), purchase of teaching and learning facilities, program curriculum review and certification, enhancing linkage with industry, and short course professional development for trainers; and (ii) facilitate beneficiaries to access skills development training through payment of costs for fees, meals, accommodation, and transport.

TEA has carried out a tracer study to determine employability of graduates at least one year after receiving skills development training. Sample graduates of three cohorts were taken for FY 2019/2020, FY 2020/2021 and FY 2021/2022. Among the 4,050 graduates who were sampled, 3,871 graduates were reached via mobile phones, representing a response rate of 96 percent. The result of the tracer study revealed that 80 percent of the graduates were employed (64 percent self-employed and 16 percent employed) in the six priority sectors. In addition, the GPI for the tracer study sample was almost equal, with 51 percent female and 49 percent male.



The energy sector had the highest employment rate (92 percent) followed by a tie between agriculture and construction sectors (87 percent). The graduates from the ICT sector had the lowest employment rate (61 percent). However, the majority of the graduates were self-employed. Among those employed, nearly 66 percent of the respondents were in the temporary contract category and only 25 percent of the respondents held a permanent contract (see table 2).

SDF graduates reported difficulties in securing loans for business startups. The TEA tracer study found that 65 percent of graduates reported having difficulties in securing loans for business startups, among whom 18 percent reported having low access to soft loans and working tools and another 14 percent reported difficulty securing permanent employment.

Table 2: Employment status within sectors

Sector	Continuing with studies	Employed	Self-employed	Unemployed	Total	% Employed + self-employed
Agriculture and agribusiness	92	317	1,567	225	2,201	87%
Construction	5	10	119	15	149	87%
Energy	13	68	155	7	243	92%
ICT	71	49	134	48	302	61%
Tourism and hospitality	13	116	327	172	628	71%
Transport and logistics	24	64	206	54	348	78%
Grand total	218	624	2,508	521	3,871	81%

Source: TEA 2022.

Having two Ministries implementing parallel skills development funds in Tanzania has some advantages. It allows for a broader coverage of skills development initiatives, ensuring that a diverse range of individuals can access training opportunities. The PMO–LYED’s skills development fund focuses on youth skills development, enterprise-based training, and is implemented through a PPP arrangement, while the TEA Skills Development Fund (SDF) targets to: (i) build capacity of formal public and private TVET institutions and informal training providers to provide quality skills training relevant to the job market; and (ii) facilitate youth to access skills development opportunities. This dual approach caters to the needs of different beneficiaries, providing specialized support for youth and a more comprehensive approach for individuals across all skill levels.

Having two parallel funds also poses challenges in terms of coordination, resource allocation, and potential overlap. It is crucial to establish clearer boundaries and avoid duplication of efforts between the two funds. This can be achieved through effective communication and collaboration between the PMO–LYED and MoEST to ensure that the skills development funding sources complement each other, utilize resources efficiently, and minimize redundancy. By establishing well-defined roles and objectives for each source of fund, Tanzania can create a more streamlined and effective system for skills development, ultimately benefiting a broader range of individuals and supporting the nation’s socio-economic growth.

QUALITY ASSURANCE REGULATION

To strengthen quality assurance, the government created NACTVET, which merged the regulatory functions of VETA and NACTE into one single regulatory body for TVET. NACTVET holds much promise to regulate the sector more efficiently, though it has yet to fully integrate the previous mandates and structures of NACTE and VETA and to modernize the consolidated operational procedures.

Program accreditation standards could be strengthened to reflect occupational standards and to include specific industry link requirements at the provider and program level. NACTVET has the authority to provide accreditation to institutions and programs, but the requirements could be more rigorous. NACTVET still employs the NACTE academic quality standards of June 2010 for accreditation of TVET programs and institutions. Following the shift of VET regulatory roles, this will require more resources

to improve the quality of accreditation standards to both Technical and Vocational training Providers. This will enable the TVET regulator to develop and revise accreditation standards. NACTVET has developed some tools for registration of VET Centres but guidelines on how to improve the accreditation processes to VET Centres is also crucial. To date, it has accredited more than half of all TVET providers and already validated/approved more than 1,000 curricula for training programs, including 135 skills development programs. While accreditation standards require curriculum development process to consult with internal and external stakeholders, they do not clearly identify stakeholders. Thus, revised accreditation standard should consider more collaboration with the Industry. In the current accreditation standard industry is mentioned only in a note cited below, as one of the entities that *MAY* be consulted (see box 2).

Box 2: Accreditation standards of NACTVET

NACTE would expect course approval to be subsumed within the program approval process. External stakeholders may include academic staff from other institutions delivering similar program, Industry Training Organisations, local or national industry advisory groups (program committees) and professional bodies. Approval processes must allow sufficient opportunity for external inputs to be considered and appropriate changes made.

Source: NACTE Academic Quality Standards 2010.

Commendable efforts are being made by NACTVET to update occupational standards. NACTVET is updating occupational standards for 26 occupations in close collaboration with lead industries. It is also developing program delivery standards and integrating the occupational standards with educational specifications of courses, credits, staffing and equipment requirements to guide

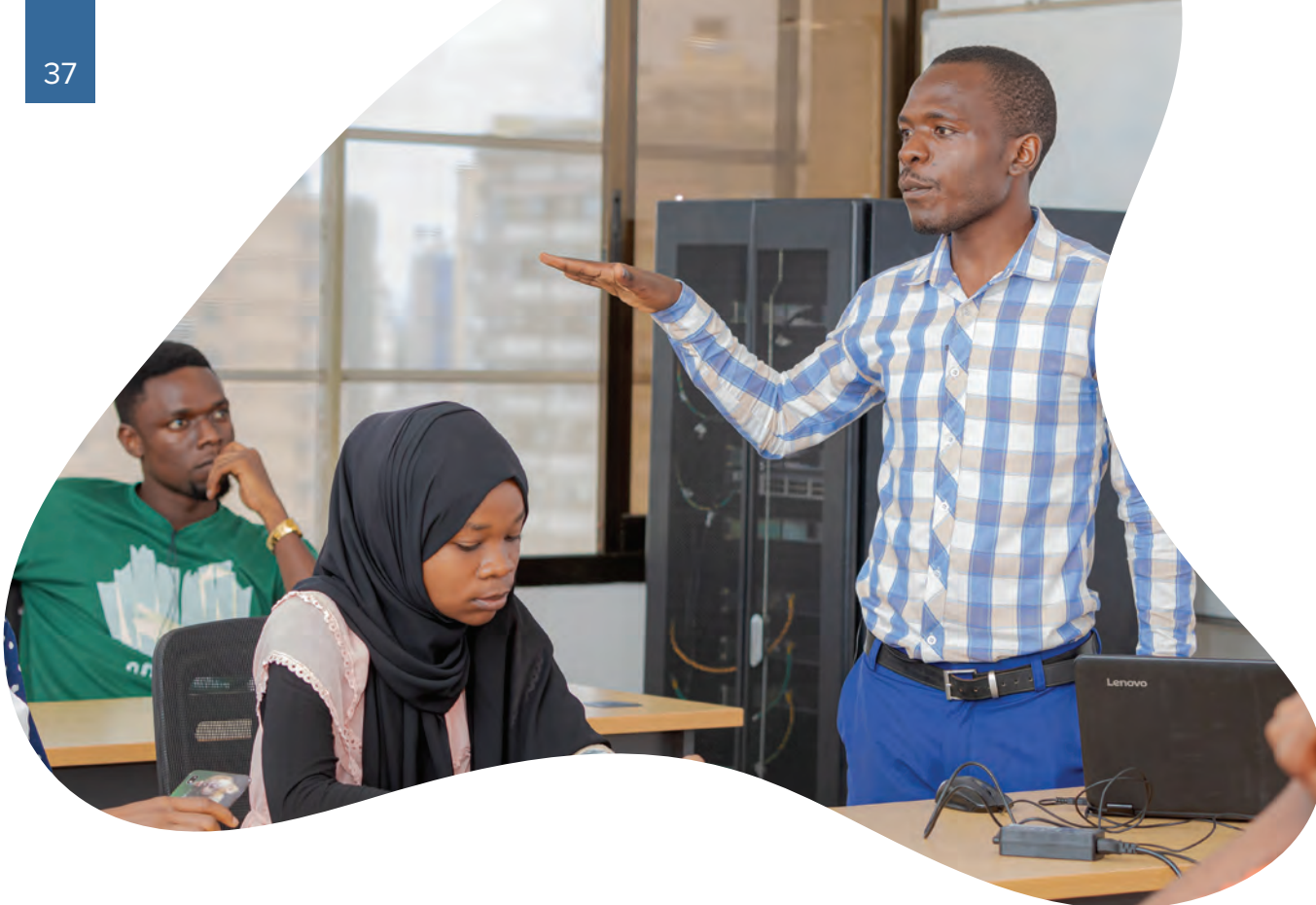
the development of training programs and syllabi. NACTVET has further adopted a standard capacity development package for trainers and managers of VTCs and FDCs, including training in TVET management, marketing and branding, program development, cross-cutting areas of environmental and social safeguards, green TVET, gender, and ICT.

TVET MANAGEMENT INFORMATION SYSTEM

Skills Management Information System (SMIS) was developed to address the long-standing absence of a consolidated data system, which had constrained the evidence and data-driven dialogue on issues affecting the TVET subsector. With support from ESPJ, the SMIS is operational, hosting data from the key subsector players, including VETA, Tanzania Commission for Universities (TCU), TEA, and NACTVET. Regular updates are expected annually through a submission of administrative data from respective regulatory agencies. To date, a total of 1,725 TVET programs have registered with SMIS through data submissions from training providers. The first Tanzania TVET Indicator Report was published in 2021.

The SMIS database has yet to be fully integrated into the main NACTVET database. SMIS collects ESPJ data, and upon integration with NACTVET, it will merge with data collected from projects outside of ESPJ. The NACTVET database, previously accommodated at the former NACTE office, had been limited because it collected more data on TETs than VETs. The calls for integration into a single NACTVET database will enable the government to have the most up-to-date TVET information to enable easy data retrieval, processing and use.





OPPORTUNITIES AND RECOMMENDATIONS

This section provides recommendations for improving the TVET system as the government seeks to equip more Tanzanian youth and adults with relevant knowledge and skills to flourish in the labor market. While the TVET system faces challenges from outside the education sector, such as stagnant job creation, the global pandemic, and climate change, the government is well-positioned to make progress in improving its TVET system and reorienting it to be more demand driven and aligned with the labor market.

The government could emphasize the relevance and quality of programs by considering the following: (a) strengthening the TVET system stewardship and governance by improving coordination; (b) increasing access and providing equity-based programs that target vulnerable groups; (c) strengthening industry links and quality at the system level; (d) ensuring sustainable financing and promoting performance and relevance for TVET and skills development, by

considering the adoption of unit-cost-based capitation grants and the development of performance-based pay; (e) reviewing the allocations, transparent use and the impact of the SDL; (f) reviewing and consolidating the two skills development funds into one single national skills development fund; and (g) reviewing the fee structure for higher education and technical education programs. This section examines each of these policy recommendations.

Strengthening system stewardship and governance by improving coordination. The government could improve the coherence and impact of TVET initiatives, by providing updates on the implementation of the NSDS and by making amendments to TVET or skills development acts. While the MOEST has mandates over preemployment TVET, the PMO-LYED has mandates over work-based skills development. With both ministries making contributions toward the NSDS, there are overlapping skills development funds, internships, and apprenticeship programs that

are being rolled out. NSDS plans to enact a National Skills Development Council (NSDC) as an umbrella body for the skills development sector to consolidate these joint ministerial efforts, but progress has stalled for fear of creating another high-level body without producing efficient results or adequately reforming the use of SDL. Since TVET provision is spread across multiple ministries and agencies, it is all the more critical to have an interagency coordination mechanism and overall sector monitoring mechanism to help improve TVET coverage. Going forward, the government will need to improve the overall coordination of the skills and TVET sector. Even if the NSDC is not enacted, an inter-ministerial working group mechanism needs to be created as a practical approach to better coordination within the TVET system. With regard to the skills development fund and programs, there is a need to clearly define the boundary between TVET and skills development, with the former continuing to be led by MOEST and the latter, including the SDF, managed by the PMO-LYED, with financing from the SDL.

Increasing access and providing equity-based programs that target vulnerable groups. The Tanzania TVET sector has huge potential to expand as more and more students are graduating from the basic education sector. The government is improving access to TVET and tertiary programs by expanding the network of FDCs, VTCs, TCs, and universities, but it could do more to move the TVET system beyond the first phase of the NSDS, which focused on expanding the coverage of TVET and skills development programs. To further support TVET students and ensure equity including gender issues, government could consider target tuition waivers or bursary schemes for strategic programs (teacher training, agriculture training) or for special vulnerable groups, including girls and students with special needs. The government could also promote advocacy and outreach programs for female students and provide scholarships and other equity-based demand-side programs.

Strengthening industry linkages and quality assurance at the system level. While streamlining the regulatory bodies into one single entity, NACTVET, is a positive step, there remain questions regarding reviewing of the accreditation standards, and operational processes can be enhanced to promote relevance and excellence in TVET by considering the following:

-  **Fully integrating the functions previously exercised by VETA through change management and capacity building,** including renewing its strategic vision and plan; updating registration tools for VTCs' program development manuals, and field attachment guidelines; improving skills testing centers (zonal offices, EASTRIP flagships, and other partners); and modernizing management information system. Tanzania could further develop implementation guidelines on industry links and incorporate those as part of the accreditation standards for all providers public and private by NACTVET. It is also important for NACTVET to support quality assurance for the FDCs which is not yet part of NACTVET.
-  **Fully integrating the functions previously exercised by VETA through change management and capacity building,** including renewing its strategic vision and plan; updating registration tools for VTCs to each of the trade rather than general registration tools for all the trades, program development manuals, and field attachment guidelines; improving skills testing centers (zonal offices, EASTRIP flagships, and other partners); and modernizing management information system. Tanzania could further develop implementation guidelines on industry links and incorporate those as part of the accreditation standards for all providers public and private by NACTVET. It is also important for NACTVET to support quality assurance for the FDCs as directed by the Ministry of Education, Science and Technology.

- ✓ **Developing up-to-date industry-aligned standards, rather than only focusing on academic standards.** It is critical to develop training standards including occupational standards and program delivery and assessment standards as well as to pay attention to developing technical procedures and standards for each of the industrial sectors. This may need better coordination between NACTVET and Tanzania Bureau of Standards (TBS) and industries. For some projects that the government has prioritized, such as oil, gas and vehicle transmission, there is a need to develop national technical standards and education standards by incorporating international practices. The newly merged regulatory body NACTVET could play an important role to set up model training standards for select industries to guide program development for all providers.
- ✓ **Strengthening TVET trainers' competencies.** In addition to increasing the number of TVET trainers, Tanzania should develop TVET trainer competency framework and career ladder, including industry experience and regular industry attachment as part of trainer continuous professional development. The government could encourage and reward skills certificates for trainers (dual qualifications) and allow TVET institutes to recruit trainers directly from industry.
- ✓ **Linking standards with National Qualifications Framework (NQF).** The NQF has not yet been formally operationalized, thus the timing is right for the newly developed occupational and program standards to be aligned with the NQF. There are still significant barriers such as misperceptions about RPL and transitioning from FDCs and VTCs to TCs that providers have not yet addressed. However, approved NQF is flexible which provide opportunities for graduates from FDCs and VTCs to go to TCs, but it needs further improvement due to ongoing changes in the education policy 2014 Version 2023. Furthermore, the Tanzania NQF could have been harmonized with the East Africa regional qualifications framework, developed by the IUCEA with support from EASTRIP.
- ✓ **Improving the quality of the data system and TVET resource bank.** Further work to strengthen SMIS is needed, including the consolidation of databases from all TVET providers and monitoring of their quality and relevance. It is also important to develop a TVET teaching and learning resource bank, with teaching and learning video and audio, and other materials that can be accessed at the learner's convenience.
- ✓ **Ensuring internal quality assurance within each TVET institute to create demand-driven programs.** Good practices can be found in the World Bank-financed EASTRIP program which supports institutional autonomy and industry links directly at provider level. The NACTVET could require all TVET providers to provide explicit industry-linked mechanisms, by scaling up successful approaches of Industrial Advisory Committees, situational analysis, and graduate tracer studies for every TVET provider. NACTVET could develop and establish a professional development mechanism, or Systematic Training and Evaluation Progressing System (STEP), for TVET faculty and management, which can be applied to all of the institutions. It is also of great importance that NACTVET develop periodic program assessment tools and mechanisms to make sure that the programs are relevant, and graduates are obtaining skills that lead to employment.

Ensuring sustainable public financing and promoting performance and relevance for TVET and skills development.

On average, countries allocate 10 percent to 15 percent of education expenditure on TVET with variations depending on their policy goals. In addition, countries tend to enroll 25 percent to 50 percent of secondary and tertiary students in the TVET sector. The TVET education expenditure in Tanzania is between 2 percent and 9 percent and TVET coverage remains limited with a GER of below 3 percent. Tanzania can improve the TVET coverage and dedicate a higher proportion of government spending to this sector by considering the following:

✓ **Adopting unit cost-based capitation grants for public TVET providers and developing performance-based pay.** Public TVET providers including FDC, VTCs, and TCs receive government funding for staff salaries, operational costs, and development budget based on historical trends and ad hoc requests. Tanzania TVET could emulate the capitation grant scheme used for primary and secondary education but use unit cost-based capitation grant to incentivize public providers to innovate on ways to increase enrollment and improve the relevance of the programs. The development of guidelines for unit costs could vary by program and region and include the use of block grants that are tied to enrollment and per student expenditure standards.

✓ **Considering other performance-based financing.** Several African countries, including Uganda, Mozambique, and South Africa, have used their skills development funds to adopt competition-based funding to promote TVET excellence. In Tanzania SDF implemented by TEA also requires competition, and supports Training institutions, as primary beneficiaries, to build their capacity to provide quality TVET to secondary beneficiaries (individuals). Other countries have set aside special funding to

promote national priority and strategic programs such as teacher training and agriculture for example. The government could also consider other financing models such as the Centers of Excellence (COE) and Flagship Institutes that promote institutional autonomy and industry links. Institutions could apply and receive funding from the government based on sound proposals and mutually agreed performance indicators. With the expanding number of TVET providers, the government could explore mechanisms to leverage maximum results with limited public resources. Linking funding with performance and introducing competition between providers can help solicit the best quality and most relevant training programs in relation to government priorities and weed out poor quality TVET programs.

Reviewing the allocation, transparent use, and impact of SDL resources. The SDL is high in Tanzania and could be reviewed to benefit more the TVET sector and employer-based training. Employers are concerned that SDL disproportionately benefits higher education over the TVET sector and that the appropriation to the higher education student loans will even further increase at the expense of TVET. SDL funds channeled to the PMO-LYED benefit public and institutional providers more than private and enterprises. SDLs can be made more efficient to support more employer-based training such as apprenticeships and interns. There is potential for SDLs in Tanzania to directly rebate the employers who provide on-the-job and other training, which is how countries such as Mauritius and Botswana use SDLs. More attention could be paid to ensure that student loans and skills development funds target the most vulnerable youth and other disadvantage populations. A thorough review of the uses and impact of SDL could be carried out and the results could be disseminated to inform future SDL policy making.

Reviewing and consolidating the two SDFs into one single NSDF to support demand-driven and national priority programs, especially for vulnerable out-of-school youth. A single NSDF can continue to be funded by SDL but include contributions from development partners. This would help create a much-needed balance between investment in training and greater participation in the labor market. The NSDF would enable graduates to secure direct employment or self-employment by providing them access to capital, soft loans, availability of start-up equipment and tools, as well as access to markets for their products. A NSDF could provide more opportunities for apprenticeships and internships through strategic partnerships/links with prospective employers within the six key skills sectors. The NSDF could even target providers to develop innovative programs and strengthen their core capacity in the long term.

Reviewing the fee structure to potentially lift the fee caps for higher education and technical education. The current low caps not only limit the growth of the public sector but also hinder the expansion of private

TVET. It is recommended to establish a government student fee policy that allows TVET providers to revise fees based on the prevailing conditions and affordability. This could be done by creating a more conducive policy and financial environment for private providers. The private provision of TVET at both the TET and VET levels in Tanzania is significant. As of 2022/2023, the proportion of private providers in TET has reached 61.2 percent, compared to 38.8 percent for government institutions. In VET, private providers account for 42.3 percent, while FBOs (Faith-Based Organizations) contribute 31.4 percent, in contrast to central government at 8.4 percent and local government at 1.3 percent (AESPR 2022). These figures demonstrate the crucial role that private providers play in delivering TVET services to the public. Both the TVETDP (2013/14 to 2017/2018) and NSDS II (2016/2017 to 2025/2026) acknowledge the contribution of the private sector in TVET delivery. However, the proportion of the SDL and SDF benefiting private providers is relatively low. Furthermore, the higher education loans scheme does not cover private providers students studying in TVET.

SUMMARY RECOMMENDATIONS AND SUGGESTIONS

Domains	Current Situation	Recommendations and Suggestions
Governance	Fragmented governance and lack of coordination and weak linkage with the private sector	<ul style="list-style-type: none"> Consider creating an inter-ministerial working group as a flexible mechanism for skills coordination. Consider bringing all public TVET institutions under the umbrella of MOEST. Clearly define the boundary between formal TVET and informal and employer skills development subsystems, with the former continuing to be led by MOEST and the latter to be managed by the PMO-LYED. Strengthen NACTVET as a single regulatory body for public and private TVET providers; strengthen system linkage with private sector by increasing the representation of private sector; and fund the new roles of regulating Vocational education and training performed by NACTVET.
Access and equity	Extreme low coverage of TVET	<ul style="list-style-type: none"> Set targets of 25–50 percent of secondary and tertiary enrollment in TVET. Continue to encourage private provision and expand the public network of FDC, VTC, and TC in close collaboration with the productive sector. Operationalize the qualifications framework to improve the vertical and horizontal articulation of academic and TVET programs.
	Limited demand-side schemes of loans, scholarships, and stipends to support students, especially those of poor backgrounds	<ul style="list-style-type: none"> Target tuition waivers or bursary schemes for strategic programs (teacher training, agriculture training) or for special vulnerable groups, including girls and students with disabilities.
	Gender equity issues in TVET	<ul style="list-style-type: none"> Promote advocacy and outreach programs for female students. Increase the recruitment of female staff in TVET institutions. Provide scholarships and other equity-based demand-side programs.
Quality and Relevance	Out-of-date training programs, not responding to labour market, lack of core capacity for developing demand driven TVET program;	<ul style="list-style-type: none"> Directly adopt industry certified training programs, especially in ICT, automotive, aviation, and welding, which has many industry-certified programs. Work with industry to develop customized training for current and future employees. Develop occupational and program standards at the system level to guide TVET providers to develop relevant programs, incorporate occupational standards and labour market studies as part of curriculum development and approval process . Leverage digital resources, including virtual reality/augmented reality (VR/AR) training labs. Partner with global lead institutions and share curriculum through joint programs.

Domains	Current Situation	Recommendations and Suggestions
Quality and Relevance	Teachers/trainers often lacking in industrial and practical competencies	<ul style="list-style-type: none"> • Develop TVET trainer competency framework and career ladder, including industry experience and regular industry attachment as part of trainer continuous professional development. • Allow TVET institutes to recruit trainers directly from industry. • Encourage and reward skills certificates for trainers (dual qualifications). • Ensure continuous professional development for TVET trainers. • Provide TVET teachers with regular industrial exposure to be up-to-date with work-based skills to be able to train real workplace skills.
	Qualifications framework and pathways not fully functional; TVET students still subject to academic exams; skills certificate system not fully operational	<ul style="list-style-type: none"> • Focus on TVET qualifications and create vertical pathways so that students can proceed to postsecondary TVET institutes (e.g., 3+2 program in China). • Consider bilateral articulation agreements and horizontal pathway between academic and TVET programs. • Promote recognition of prior learning. • Develop skills testing based on competency standards and link with TVET qualifications (e.g., Kenya approved twenty national polytechnics and other institutions as skills testing centers).
Quality Assurance	Tendency toward process-orientated, overregulated quality assurance agencies	<ul style="list-style-type: none"> • Modernize digitized quality assurance management system. • Strengthen governance with industry advisory committees. • Accredit institutions and broadband programs only; improve the efficiency of accreditation services. • Develop periodic program assessment tools and mechanisms. • Provide capacity building, benchmarking, ranking, and R&D services in TVET.
Financing	Low level of public financing in formal TVET: 2–9 percent of education expenditure on TVET	<ul style="list-style-type: none"> • Target 10–15 percent of education expenditure to TVET per policy goals.
	SDL level too high and not sufficiently benefiting the TVET sector	<ul style="list-style-type: none"> • Review the SDL and ensure SDL financing of TVET sectors. • Improve the transparency of SDL uses and effectiveness. • Review the two skills development funds and consolidate into one single national skills development fund.
	Public funds allocation historical and input-based, reinforcing a supply-driven model	<ul style="list-style-type: none"> • Develop guidelines for unit costs which vary by program and region. • Use block grants tied with enrollment and per student expenditure standards. • Bring teacher wages into block grants.
	Limited quality improvement and TVET excellence grants as well as limited funding for government strategic programs	<ul style="list-style-type: none"> • Encourage performance and competition-based funding to promote TVET excellence (e.g., use of skills development funds by Uganda, Mozambique, Tanzania, and South Africa). • Promote national priority and strategic programs (e.g., teacher training and agriculture).
	Public funding mainly going to public institutions	<ul style="list-style-type: none"> • Integrate and energize the training market by providing grants, vouchers, or scholarships that are available on an equal basis to both public and private providers.
	Low caps limiting the growth of the public sector and hindering the expansion of private TVET	<ul style="list-style-type: none"> • Establish a government student fee policy that allows TVET providers to revise fees based on the prevailing conditions and affordability.

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