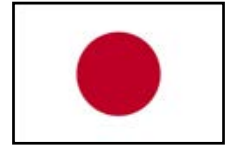




International
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▶ Building pathways to sustainable growth

Strengthening TVET and productive sector linkages in Africa



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▶ **Building pathways to sustainable growth**

Strengthening TVET and productive sector linkages in Africa

► Foreword

With its focus on equipping youth and adult workers with the skills that they need in the fast-changing world of work, Technical and Vocational Education and Training (TVET) has the potential to contribute to fostering full and productive employment, promoting productivity and structural transformation, and accelerating sustainable development. However, TVET systems in many countries in Africa are facing significant challenges in meeting the demand of the labour market and the aspirations of people. A major cause is the lack of effective linkages between TVET systems and institutions and stakeholders in the labour market.

To contribute to the achievement of the 2063 African Agenda for inclusive growth and sustainable development, modernizing and strengthening TVET in Africa is an imperative. In line with this Agenda, the African Development Bank (AfDB) and the International Labour Organization (ILO) joined hands to do a joint analysis of TVET systems in Africa and come up with key recommendations that aim to provide guidance on increased investments in skills development and strengthen the capacity of stakeholders in improving TVET performance in the continent. This joint report will fill an important knowledge gap because efforts to strengthen TVET performance are complicated by a lack of information on the features, performance, and constraints of TVET systems, and on the effectiveness and prerequisites of reforms.

The main findings and recommendations in the report are aligned with the AfDB's Skills for Employability and productivity in Africa (SEPA) Action Plan 2022-2025 and the ILO strategy on skills and lifelong learning for 2022-30 touch upon three fundamental elements of TVET performance:

- the development of a credible reform agenda based on sound vision and strategy;
- the strengthening of stakeholder engagement to achieve better linkages between TVET and the productive sector; and
- improving TVET's governance and financing mechanisms.

The AfDB and the ILO would continue their collaboration in supporting Member States in Africa to adapt and implement the recommendations in the report to boost the role of TVET systems in Africa's growth and development.

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► List of acronyms

ACQF	African Continental Qualifications Framework
ADF	African Development Fund
AfDB	African Development Bank
AU	African Union
AUC	African Union Commission
CBET	competency-based education and training
CBT	Competency-based training
CEDEFOP	European Centre for the Development of Vocational Training
COTVET	Council for Technical and Vocational Education and Training
DHET	Department of Higher Education and Training
DRC	Democratic Republic of the Congo
DSIP	Development of Skills for Industry Project
EAC	East African Community
ETF	European Training Foundation
GDP	Gross Domestic Product
ICT	Information and Communications Technology
ILO	International Labour Organization
IOE	International Organisation of Employers
IOM	International Organization for Migration
ITU	International Telecommunication Union
NEET	not in education, employment or training
NQF	National Qualifications Framework
OECD	Organisation for Economic Co-operation and Development
PCU	Project Coordination Unit
PSU	Project Support Unit
RPL	recognition of prior learning
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SETA	Sectoral Education and Training Authority
SMEs	small and medium-sized enterprises
STEM	science, technology, engineering and mathematics
TE	technical education
TVET	technical and vocational education and training
UA	Unit of Account
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization

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Executive Summary

This is a report about technical and vocational education and training (TVET) in Africa. With its focus on equipping youth with the skills that they need for the world of work, TVET has the potential to contribute to fostering employability and youth employment, promoting productivity and economic transformation, and accelerating sustainable development.

TVET in Africa is not living up to its potential, partly due to external factors. The challenges causing Africa's TVET systems to underperform are many and multidimensional. To an extent, these challenges are beyond the scope of TVET systems. In particular, weaknesses in general education mean that learners who enter TVET come ill-prepared, often with insufficient foundational or core skills, and an unfinished economic transformation agenda results in weak labour market demand for the skills that TVET provides.

TVET systems themselves also display plenty of weaknesses that impede their performance, including limited linkages with the productive sectors. As this report shows, these include challenges in developing realistic and appropriate goals and strategies that are shared among TVET's many stakeholders, ineffective governance mechanisms and policy frameworks, insufficient financing and expenditure mechanisms, and a lack of focus on apprenticeships. One matter of particular concern is that TVET systems in most countries struggle to establish constructive linkages with the productive sectors. This means that formal TVET delivery largely takes place in TVET institutions, without abundant options for work-based learning and quality apprenticeships and therefore without benefitting from the essential inputs of the productive sectors in areas such as curriculum development, career guidance, assessment or funding. At the same time, a lot of informal training takes place in enterprises, without formal quality assurance mechanisms or skills qualification options. Overall, the weaknesses in TVET systems result in TVET delivery that lacks responsiveness to labour demand and that does not have the quality that it should have. It also results in inequities among (potential) learners; this includes a lack of girls and young women entering and completing TVET, especially in fields that promise relatively high labour market returns.

This joint report by the African Development Bank (AfDB) and the International Labour Organization (ILO) aims to support stakeholders in Africa in improving TVET performance. While recognizing that TVET systems and the contexts in which they operate differ between countries in Africa, the goal of this report is to identify common challenges and propose recommendations to address them. In doing this, the report aims to fill an important knowledge gap, because efforts to strengthen TVET performance are complicated by a lack of information on the features, performance and constraints of TVET systems, and on the effectiveness and prerequisites of reforms. The lack of data to inform evidence-based decision-making is a challenge globally, but it is particularly acute for low- and middle-income countries, which make up the majority of countries in Africa. The ILO and AfDB have combined their knowledge and networks to begin to fill these gaps for Africa.

This report synthesizes the findings from existing literature on TVET in Africa and complements the data with the results of several surveys that were conducted by the AfDB and ILO specifically for this report. The literature that was reviewed included peer-reviewed published literature, complemented by working papers, government documents and other relevant documentation. The novel aspect of this review, compared to other analyses that we know of, is that it focuses on Africa-specific literature, in an effort to capture features and characteristics that are specific to the continent. In addition to the literature review, several surveys were conducted among key TVET stakeholders in Africa: the *TVET Mapping survey* collected information from representatives of national Ministries of Education and TVET and from TVET agencies; the *Social Partners surveys* consisted of three separate surveys that were administered to companies, employers' associations, and workers' unions and union associations. Combined, the surveys explored stakeholders' activities and perceptions on the state and performance of TVET policies and practice. Considering the importance of strong linkages between TVET and the productive sectors, all the surveys focused on the scope and nature of these linkages.

The report's findings highlight various important weaknesses in TVET performance, but also observe relatively positive perceptions about TVET among survey respondents. TVET is not a magic bullet and can only contribute to employment and productivity when countries in Africa implement broader reforms that spur economic transformation, employment growth and, relatedly, skill demand. Still, in most countries there is ample scope to maximize the performance of TVET systems within the existing economic context, principally by improving the demand-responsiveness and capacity of formal TVET, and by devoting more government attention to the informal training that is provided by the productive sectors. Increasing the intensity and effectiveness of the engagement of social partners with government authorities and TVET institutions, which was found wanting, would be an important lever to achieve these goals. While also including critical comments on the relevance of TVET, survey respondents were relatively positive about TVET. For example, company representatives who participated in the Social Partners surveys indicated that TVET qualifications are a relatively significant consideration in hiring decisions. This might be a promising sign that, while understanding current challenges, many stakeholders do recognize TVET's potential.

Recommendations for strengthening TVET performance in Africa are based on the Africa-specific literature review and surveys, combined with insights from global strategies and analyses. To complement the scarce collection of evidence-based knowledge focusing on Africa, the report derives its recommendations from the Africa-specific analyses, supplemented by relevant global research and recommendations, principally from strategic documentation from international organizations, such as the ILO and others. (Box 0.1 summarizes the report's recommendations.)

Recommendations focus on strengthening the foundations that determine TVET systems. The recommendations that have been formulated on this report's findings touch upon three fundamental elements of TVET performance:

1. the development of a credible reform agenda based on sound vision and strategy (by making sure that these are broadly shared, contextualized, evidence-based and realistic);
2. the strengthening of stakeholder engagement to achieve better linkages between TVET and the productive sectors (by creating an enabling environment for all stakeholders and, for example, prioritizing the strengthening of the linkages between individual enterprises and TVET institutions);
3. improving TVET's governance and financing mechanisms (for example, by ensuring clear and coherent mandates, increasing and diversifying funding, and promoting outcome-focused accountability mechanisms).

The report makes further recommendations on several topics that were identified as particularly critical challenges across Africa related to, among other issues, apprenticeships, gender and technology. In addition to reforms to strengthen the foundations of TVET systems, the report also provides recommendations to address selected challenges that were found to be critical constraints to TVET performance in Africa. This includes recommendations to improve the quality and relevance of TVET. On this matter, the report recommends, among other things, that **stakeholders take steps to gradually move towards a new model of dual training delivery, where training is increasingly delivered in workplaces, including through quality apprenticeships.** It also urges due consideration to be given to the informal economy and informal skills development, considering their overwhelming importance in most countries in Africa. Beyond the quality and relevance of TVET delivery, recommendations also focus on critical issues related to expanding access to TVET, especially for disadvantaged groups. On these topics, the report makes various recommendations, including only expanding TVET when the quality and relevance can be sufficiently ensured, and the application of a comprehensive enabling approach to promoting equitable access to TVET, particularly for women. Broader recommendations are further provided relating to exploiting the myriad potential benefits of technology in all facets of TVET, and on continuing to expand the knowledge base on TVET to promote evidence-based decision-making.

Some recommendations are targeted specifically at development partners and relate to aligning support for TVET with overall strategic objectives, to the crucial role that donors can play in cross-national knowledge sharing, and to sound project management. While all of the recommendations in this report are also intended for development partners, since they are important stakeholders in many countries, there are also some recommendations that are exclusively targeted at donors. This includes the recommendation that development partners align their support for TVET with their activities in other areas. For example, for the AfDB, investments in the area of TVET can be suitably aligned with the “High 5 Priorities” for economic diversification and inclusive growth, as identified in the African Union’s Agenda 2063. For the ILO, TVET is an integral part of a set of mechanisms to realize the potential for a future of work with social justice in Africa, as captured in the Abidjan Declaration of the International Labour Organization. Other recommendations highlight the fact that development partners are particularly well placed to support knowledge development and dissemination, including at the regional or continental levels, and emphasize the importance of applying good project management practices, including through ensuring adequate staff preparation.

Box 0.1 Recommendations for improving TVET performance in Africa

Recommendations for strengthening TVET’s foundations

Developing a credible reform path for improved TVET performance

1. Make sure that TVET strategies are evidence-based and owned by all key stakeholders.
2. Align TVET vision and strategy with the specific socio-economic context, the broader national reform agenda and overall education system reforms.
3. Consider implementation capacity when developing TVET strategies and reforms.
4. Balance the goal of short-term results with efforts to achieve structural system reforms.
5. Plan an appropriate mix of infrastructure investments and structural reforms.
6. Experiment, evaluate, and then expand the most impactful approaches.

Promoting linkages between the productive sectors and TVET

1. Create an enabling environment for all stakeholders through leadership, clear mandates, conducive regulations, accountability mechanisms, capacity building and financial incentives.
2. Consider a differentiated approach between sectors or activities, depending on the level of organization and capacity of social partners.
3. Pay sufficient attention to strengthening linkages between individual enterprises and TVET institutions.
4. When considering sector skills bodies, ensure that the sectors are carefully selected and the functions of the sector bodies are closely aligned with sector needs and capacity.
5. Make particular efforts to reach employers and employees in the informal economy.

Strengthening TVET governance and financing

1. Governance mechanisms at all levels should provide mandates for government authorities, social partners and other stakeholders that are clear, coherent and derived from the TVET strategy.
2. Increase and diversify sustainable funding for TVET.

3. Improve the effectiveness of expenditures by strengthening evidence-based accountability mechanisms, focused on end-results.

Addressing critical challenges to improve quality, relevance and equitable access

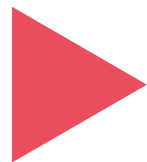
1. Take steps towards implementing a new model of dual training delivery, whereby training is increasingly delivered in workplaces, including through quality apprenticeships.
2. Consider the skill needs and opportunities of the informal economy as well as those of the formal sector.
3. Strengthen TVET quality and relevance by aligning curricula with skill demand, promoting experiential learning and ensuring that teachers and trainers are appropriately qualified.
4. Incorporate a sufficient focus on core skills for lifelong learning within TVET curricula.
5. Expand access to TVET only when quality and relevance of provision can be sufficiently assured.
6. Apply a comprehensive enabling approach to promoting equity in TVET.
7. Pay particular attention to ensuring that more women complete TVET, especially in high-return fields.
8. Make smart use of the opportunities that technology offers.
9. Make concerted efforts to collect and use credible and relevant data for decision-making.

Strengthening effectiveness and sustainability of donors' contributions to TVET

1. Development partners can align their support for TVET with their activities in other areas – for example, in the case of the AfDB, with their High 5 Priorities.
2. Development partners are well placed to play a key role in knowledge development and dissemination, including at continental or regional levels.
3. Prepare staff well to carry out their intended tasks.
4. Apply good practices in project management, implementation and supervision.

Going forwards, the ILO and the AfDB will continue to collaborate to strengthen TVET performance in Africa. The ILO and the AfDB will build on recent joint initiatives in the realm of TVET, such as the Joint Programme on Boosting Decent Jobs and Enhancing Skills for Youth in Africa's Digital Economy¹, and the global survey on the impact of the COVID-19 crisis on skilling, upskilling and reskilling of employees, apprentices and interns/trainees (see box 4.9). Future collaboration will continue to combine the strengths of both organizations in terms of regional and international networks and knowledge, convening power, capacity for delivering technical assistance and the design, funding, implementation and monitoring of projects

¹ See <https://www.ilo.org/africa/technical-cooperation/digital-jobs-for-youth/lang--en/index.htm>.



1

Introduction

Introduction

► 1.1 Context and objectives

TVET has a host of potential benefits. TVET can equip youth with the skills required to access the world of work, including skills for self-employment, and improve responsiveness to changing skills demand by companies and communities as well as increasing productivity and wage levels. It can reduce access barriers to the world of work, for instance through work-based learning, and facilitate the recognition and certification of skills. TVET can also offer skills development opportunities for low-skilled people who are under- or unemployed, out-of-school youth and individuals who are not in education, employment or training (NEET).

TVET, as part of overall education and training systems, is considered to be central to the achievement of the global 2030 Agenda for Sustainable Development. A forthcoming multi-agency report emphasizes that TVET, with its unique focus on work-related skills, holds the promise of fostering employability and contributing to improving the employment outcomes of youth and adults in low- and middle-income countries, while at the same time helping to strengthen firm-level and aggregate productivity and to adapt to ongoing megatrends (ILO et al., forthcoming). The International Labour Conference of December 2021 concluded that governments and social partners should prioritize skills development and lifelong learning, through adequately resourced policies and strategies that promote inclusive and equitable quality education and lifelong learning opportunities for all; accelerate sustainable development, drive technological advancement and innovation, and promote industrial and structural transformation (ILO, 2021a). The global education community has also committed to devoting considerable attention to technical and vocational skills in its efforts to achieve inclusive and equitable quality education and lifelong learning. In this context, TVET is expected to address multiple demands of an economic, social and environmental nature by helping youth and adults to develop the skills they need for employment, fulfilling work and entrepreneurship, promoting equitable, inclusive and sustainable economic growth, and supporting transitions to digital and green economies for environmental sustainability. In its new TVET strategy for 2022–29, the United Nations Educational, Scientific and Cultural Organization (UNESCO) (2022) identified six different dimensions that TVET needs to address in order to contribute to achieving the Sustainable Development Goals (SDGs), including contributing to the economic recovery following the COVID-19 pandemic, promoting the effective use of technology and supporting the green transition (see box 1.1).



Box 1.1 Six dimensions to which TVET should respond to contribute to achieving the SDGs

UNESCO's Strategy for TVET 2022–2029 acknowledges the need for TVET to respond with an inclusive and proactive approach to six key dimensions of the SDGs:

1. **Economic recovery:** The global recovery from COVID-19 may manifest differently across countries, sectors and worker categories. Access to education has been severely and unevenly impeded. The pandemic accelerated certain transitions in the world of work, adding to the uncertainty regarding the skills that will be in demand.
2. **Technological change:** Digitalization, automation, artificial intelligence and other technological developments will both destroy and create jobs on a massive scale. The use of technology to support human rights will be necessary, with an explicit focus on inclusivity, avoiding encoding biases and using technology for the common public good.
3. **Informality:** Informal employment represents 61 per cent of worldwide employment, and 86 per cent of employment in sub-Saharan Africa. Innovative approaches are emerging that can help extend social protection to informal workers and protect them from working poverty.
4. **Demographic transition:** Continents and countries are at different stages of the demographic transition. Those with a high share of youth need a continued, rapid expansion of education and training systems and job creation on a massive scale.
5. **Societal and political issues:** TVET is part of the social contract which should guarantee the right to education and decent employment and promote intergenerational solidarity. TVET systems also have a role in facilitating the integration of internally displaced people, refugees and migrants.
6. **Green and sustainable economic transition:** More effort is necessary to mitigate climate change, stop the loss of biodiversity, restore ecosystems and reduce pollution. This will require a rapid and radical transformation of the global economy. A transition to zero-emission economies will have an impact on technologies, production, goods and services, and will result in an increased demand for workers with sustainability skill sets.

Also in Africa, TVET has the potential to address skills shortages and mismatches, as is recognized by the African Union (AU) and other important stakeholders. TVET is expected to train and integrate young people into the labour market, and to contribute to economic development and provide employment (UNESCO, 2018). The AU sees an important role for TVET in fostering economic development and promoting social welfare (AU, 2018). Also, within the Strategic Development Plan of the Southern African Development Community (SADC), strengthening TVET delivery is seen as a crucial lever to promote regional industrialization (SADC, 2020). Overall, international organizations, academics and other stakeholders consider TVET to be a potential powerful catalyst for achieving the SDGs and the African Union's Agenda 2063, especially in terms of the eradication of poverty, promotion of lifelong learning opportunities and creation of employment and decent work for all in Africa (Edokpolor and Owenbiugie, 2017; McGrath et al., 2018; Siddiky and Uh, 2020).

TVET can be a catalyst for achieving the High 5 Priorities for economic diversification and inclusive growth, as identified by the AfDB. In 2015, the AfDB (n.d.) identified five development priorities that it considers to be essential to promote inclusive socio-economic development, related to access to electricity, access to food, industrialization, regional integration and quality of life (box 1.2). By improving equitable access to high-quality and relevant skills development opportunities, TVET can contribute to achieving all these priorities.

Box 1.2 The AfDB's High 5 Priorities and their linkages to skills development

In 2013, the AfDB approved its Ten-Year Strategy for 2013–22, focusing on achieving inclusive and green growth. Based on this strategy and the SDGs, the AfDB identified five areas for priority investment, which were also highlighted as critical priorities in the African Union's Agenda 2063. These "High Five Priorities" are:

1. **Light up and power Africa:** Achieve universal electricity access by 2025 via mobilizing innovative financing; supporting policy reforms; and increasing funding for energy and climate investments. To achieve this aim, skills shortages need to be addressed by establishing a coherent and sustainable mechanism for skills development in the energy sector and linked sectors (manufacturing, construction, transportation), and by integrating hydropower and geothermal skills and competencies.
2. **Feed Africa:** Building on Africa's massive potential for agricultural production, make Africa a net food exporter by 2025. This will include mobilizing resources, policy reforms and adopting an integrated value-chain approach that emphasizes access to markets and climate-smart agriculture. It also requires training on Fourth Industrial Revolution (4IR) technologies to increase productivity and support the transformation in agriculture, manufacturing and infrastructure.
3. **Industrialize Africa:** Double Africa's industrial gross domestic product (GDP) by 2025, by empowering the private sector to drive the industrialization process and providing policy support to Governments. As skill gaps and mismatches are a significant constraint on doing business, education and training systems need reforms to keep pace with changing skill requirements.
4. **Integrate Africa:** Exploit opportunities provided by regional integration through building regional infrastructure, deepening Africa's financial system and facilitating the movement of people across borders, which will contribute to increased productivity and economic activity; and adjust education and training systems to facilitate these changes.
5. **Improve the quality of life for the people of Africa:** Ensure that Africa's demographic growth yields significant economic dividends and contributes to inclusive growth. This includes deploying strategies to create 25 million jobs, improve access to water and sanitation, and strengthen health systems. Skills development, especially for youth and women, is critical to achieving this aim, and Africa's education and training systems will need innovative funding mechanisms to boost efficiency and effectiveness.

Similarly, TVET is an integral part of mechanisms to realize the potential for a future of work with social justice in Africa, as captured in the Abidjan Declaration of the ILO. Adopted in 2019, during the ILO's 14th African regional meeting, the Abidjan Declaration lays out the priorities for shaping Africa's decent work agenda (box 1.3). The Declaration highlights skills development and human capital investments as principal priorities to ensure that all people can benefit from the opportunities presented by a changing world of work. With its emphasis on work-relevant skills development, TVET can play an important role in achieving these objectives.

Box 1.3 The Abidjan Declaration – Advancing Social Justice: Shaping the Future of Work in Africa

The Abidjan Declaration identifies the following priorities for shaping an African Decent Work Agenda:

1. Make decent work a reality for Africa's youth, developing skills, technological pathways and productivity, transforming Africa's informal and rural economy to provide decent work opportunities, and respecting international labour standards, promoting social dialogue and ensuring gender equality.
2. Strengthen the capacity of all people to benefit from the opportunities of a changing world of work through:
 - investing in human capital by strengthening education, skilling, reskilling, upskilling and lifelong learning to leverage technology and the new types of jobs it helps to create;
 - tackling gender inequality and discrimination;
 - progressively extending sustainable social protection coverage;
 - supporting the private sector as a principal source of economic growth and job creation;
 - supporting the public sector as a significant employer and provider of quality public services;
 - implementing targeted interventions in countries in situations of fragility;
 - creating decent work and productive employment for all;
 - promoting entrepreneurship;
 - ensuring freedom to innovate and experiment, and voice, representation and rights for youth;
 - striving for an enabling environment for, and promoting where appropriate, cross-border social dialogue;
 - continuing to promote the Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy.

3. Strengthen the efficiency of institutions of work to ensure adequate protection of all workers, through:
 - strengthening institutions of social dialogue, tripartism, productivity improvement and labour administration;
 - reaffirming the relevance of the employment relationship to provide workers with certainty and legal protection;
 - ensuring effective and comprehensive action to achieve the transition to formality;
 - strengthening and modernizing labour laws, regulations and processes;
 - promoting fair and effective labour migration governance; and
 - strengthening the capacity of the social partners to engage in social dialogue at all levels.
4. Promote inclusive and sustainable economic development and growth, full and productive freely chosen employment and decent work for all, through:
 - facilitating structural transformation with an emphasis on agriculture, rural economies and food security;
 - enhancing productivity;
 - improving working conditions, in particular occupational safety and health;
 - improving the environment for sustainable enterprises, including small and medium-sized enterprises (SMEs);
 - promoting cooperatives and the social and solidarity economy;
 - promoting growth towards a green economy and just transition; and
 - strengthening synergies between the ILO and institutions in Africa, specifically the African Union Commission (AUC), regional economic communities and the three labour administration training centres.

Source: ILO (2018a).

Despite its recognized potential, TVET in Africa is underperforming in terms of scale and demand-responsiveness, and effective solutions to address these challenges need to be developed to guide reforms and investments. Across the continent, it is widely recognized that TVET is facing persistent challenges in relation to its governance, reputation, low quality, skills mismatch and disconnect from the labour market (AU, 2007, 2018). Without effective solutions to address these challenges from a structural perspective, TVET's contributions to inclusive growth and poverty reduction will fail to fulfil their potential. The development of such solutions is, however, hampered by an insufficient understanding of the nature of the principal constraints on TVET in Africa and their underlying causes.

Analysis



This report aims to address knowledge gaps relating to the nature and performance of TVET in Africa, with a focus on the linkages between TVET and the productive sectors, to inform future investments aimed at improving TVET performance. Based on a review of Africa-specific research on TVET, complemented by new findings from several stakeholder surveys, this report reflects on the main strengths and challenges of TVET systems in Africa as well as the context within which they operate. These findings are then combined with global insights, lessons learned and good practices to serve as the basis for recommendations to strengthen the performance of Africa's TVET systems.

► 1.2 Methodology and structure of this report

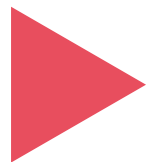
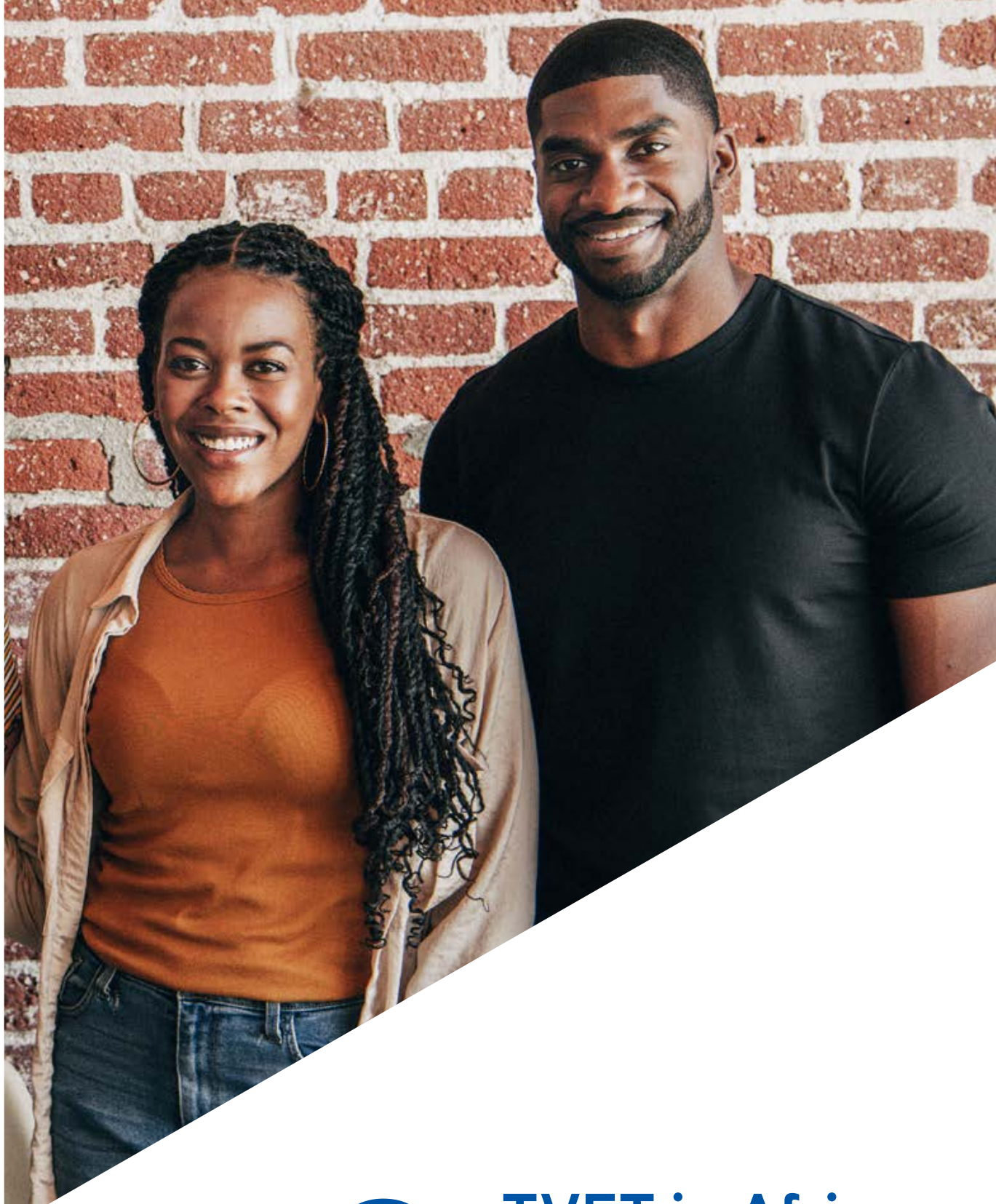
The term TVET is interpreted differently across countries, institutions and reports. UNESCO describes TVET as the combined process of all vocational education and technical training activities which aim to promote workplace learning and enhance the occupational skills of the individuals involved (UNESCO, 2018). Regularly, the term refers exclusively to formal provision of secondary level education and training aimed at preparing learners for work in what are generally regarded as mid-level skills occupations (Oliver et al., 2019). TVET sometimes includes a year or two of post-secondary provision, as well as other vocational skills development programmes, including short-course provision, on-the-job training and informal training. For the purposes of this report, this broader interpretation of TVET is generally adopted, although the referenced literature regularly applies a more narrow definition – often that of formal secondary-level TVET.

The literature review in this report is based on a combination of peer-reviewed published research, and additional grey literature. Grey literature, which can consist of working papers, evaluations, government documents, among other sources, may not always adhere to the highest standards in terms of quality, but it was included because the body of relevant peer-reviewed published research on African countries is very limited. McGrath et al. (2019) show that, aside from a small body of political economy-focused research, most research has either focused on curriculum and knowledge, or has been mainly aspirational or normative in nature, presenting ideas of what TVET could or should do for individuals, communities and economies.

Four surveys were conducted, targeting different key stakeholders within TVET systems. The *TVET Mapping survey* gathered information from representatives of national Ministries of Education and TVET and from TVET agencies to review the current state of TVET policies and practice. A sample comprising 16 selected countries was invited to participate in the survey, covering the five regions of the continent. Additionally, three different surveys were designed and administered to companies, employers' associations, and workers' unions and union associations. These Social Partners surveys explored the linkages between TVET and social partners from a broad perspective, including social partner involvement in TVET, perceptions of TVET and the nature of training in companies.

The literature review and survey data have certain limitations, which require that the findings are interpreted with a degree of caution. Credible and relevant research on TVET in low- and middle-income countries is scarce (ILO et al., forthcoming), and African countries are no exception. When data on TVET are available, they are often not comparable across countries because TVET takes different forms in different countries and definitions and data collection methods are not harmonized. Labour market data are also challenging for a number of reasons; for example, because they are collected only rarely, or because they do not take into account certain features that are very common in less developed countries but not in richer ones, such as informality and underemployment. In relation to the surveys, data collection was impacted by the implications of the COVID-19 pandemic, resulting in relatively small sample sizes overall and restrictions on face-to-face interviews.

The remainder of this report is structured in three chapters. Chapter 2 presents the findings of the literature review and Chapter 3 provides the results of the TVET Mapping and Social Partners surveys while Chapter 4 summarizes the conclusions of the study and provides recommendations for future TVET interventions and reforms.



2

**TVET in Africa:
A literature
review**

TVET in Africa: A literature review²

This chapter examines the role and performance of TVET in relation to the productive sectors of economies and in the broader context of African education systems. It is based on insights from recently published, peer-reviewed literature on TVET on the African continent. We start by describing contextual factors that influence skills demand and supply, including demography, the performance of education systems, economic and labour market features, and the implications of all these factors for TVET. We then consider features, performance and challenges of TVET systems, followed by a description of various aims and approaches for employer engagement in TVET. The scope and content of this chapter is determined by the availability of relevant literature on TVET in Africa, which is, unfortunately, quite limited. The recommendations of this report, therefore, include proposed areas for future research (see Chapter 4).

► 2.1 Key determinants of skill demand and supply

This section broadly describes several factors that substantially influence skill supply and skill demand, which are crucial aspects of the context within which TVET operates. Regarding skill supply, we consider the educational level of the current workforce; trends in population growth and education enrolment; and the extent to which education systems can cater for increasing numbers of learners. Concerning skill demand, we discuss broad economic context and labour market trends, and then summarize various potential implications for TVET systems.

2.1.1 Skill supply: A low-educated workforce, population growth and increasing educational attainment but weak learning outcomes

The educational attainment of Africa's current workforce is low, but it is bound to increase as more children and youth go to school. More than two thirds of the current workers in Africa have not completed primary education, and more than 300 million workers are illiterate. There are dramatic differences between countries; for example, the share of workers aged 20–24 years old without any education is low in countries such as Botswana, Malawi, Mauritius, South Africa, Uganda and Zimbabwe, and very high in countries such as Mali, Mozambique and Niger (Ngatia and Rigolini, 2019). Enrolment in primary and secondary education is rising rapidly (Bashir et al., 2018). Part of this rise is in response to increases in the number of school-age children. While some countries in Africa have made the “fertility transition”, many still have fertility rates that are among the highest in the world (Cramer et al., 2020).³ As a result, 20 per cent of the world's under-25 population live in sub-Saharan Africa (Brown and Slater, 2018). Increases in educational enrolment are also due to higher enrolment rates. These trends, resulting in more school-age children, of which a higher share goes to school, will gradually increase the educational attainment of the workforce. For example, secondary education is expected to double by 2030 – an additional 46 million students over the next ten years – implying that secondary education will increasingly become the “platform from which the majority of young people will enter the workforce” (Mastercard Foundation, 2020, p. 8).

² Much of the information in this chapter is drawn from a forthcoming ILO background paper to this report, TVET Mapping: Social Partners. Enhancing Skills Linkage to the Productive Sectors in Africa: Insights from the Productive Sectors (ILO, forthcoming (a)).

³ Angola, Cameroon, Congo (Brazzaville), Democratic Republic of the Congo (DRC) and Mozambique are among those countries with the highest fertility rates in the world.



Although more children are in school, their learning outcomes are weak. While impressive gains have been made in the number of learners, expanding access to education, children may be in school but they do not learn enough, and most do not acquire the basic skills that they need to prepare them for success later in life (Bashir et al., 2018) . Most individuals do not achieve minimum levels of learning, as defined by various learning assessments that are conducted across the continent. For example, among second graders in primary school that were tested, between 50 and 80 per cent could not answer any question based on a short passage they had read, and only one in four pupils could count to 80 (Bashir et al., 2018). Only one in ten students in secondary school reportedly has the required level of reading and mathematics (Mastercard Foundation, 2020).

2.1.2 Skill demand: Global developments, lagging economic transformation and a dearth of decent work opportunities are resulting in stiff competition for jobs

Africa's economies and skill demand are influenced by various global trends and developments.

The scope and nature of economic activity on the continent will continue to be shaped by technological developments, globalization, climate change, migration, the aftermath of the COVID-19 pandemic and the impact of geopolitical strife on global financial and economic systems. For example, location in global value chains and migration patterns have been significant factors shaping the nature of the demand for skilled labour, with “brain drain” a widely acknowledged phenomenon in Africa (Docquier and Iftikhar, 2019). More recently, the lack of income opportunities due to the COVID-19 crisis, combined with weak social safety nets, was estimated to have pushed up to 40 million people in Africa into extreme poverty in 2021, with women, youth, the low-skilled and informal workers being particularly severely affected (World Bank, n.d.). The fallout from the Russia-Ukraine conflict that broke out in 2022 is disrupting global supply chains, posing a substantial threat to the economy, including in Africa, and already affecting the availability and prices of crucial goods, such as wheat, sunflower oil and crude oil (Sacko and Mayaki, 2022). The continent's ability to exploit the opportunities and mitigate the risks of these global phenomena will be an important determinant of the number, nature and quality of the jobs that it can create.

Domestically, slow economic transformation in most countries impedes the creation of decent jobs for Africa's increasingly educated workforce.

While economic growth rates, at least prior to the COVID-19 outbreak, have been relatively strong in some sub-Saharan countries, the structure of most economies on the continent has not changed substantially over the past 40 years (Brown and Slater, 2018; Fox and Thomas, 2016; Newman et al., 2016). For example, no low- or lower-middle-income sub-Saharan African country has a high manufacturing employment share; in most countries, the share is below 5 per cent.

As a result, and despite some progress, Africa's economies are not creating enough decent jobs for their growing and increasingly educated workforces. Commensurate with the lack of structural economic transformation, there has been little change in the structural composition of employment. Most of the labour force is still employed in the agricultural sector (Newman et al., 2016), and more than two thirds of African workers are thought to be in low-productivity, low-quality jobs (ILO, 2016b). Fox and Thomas (2016) argue that the combination of high fertility rates and slow industrialization leaves the majority of young labour market entrants with no employment options except household farms and household enterprises, in which earnings and productivity are usually low. This view is corroborated by the observation that the fast-growing service sector consists mainly of household enterprises. They predict that "at best one in four of Africa's youth will find a wage job, and only a small fraction of such jobs will be 'formal' jobs in modern enterprises". This is not to say that the number of good jobs is completely stagnant and that there are no pockets of sound performance. For example, Cramer et al. (2020) observe a consistent increase in the absolute number of formal wage employees between 1991 and 2017, and a strong increase in the number of jobs in industry since 1991 in, for example, Ethiopia, Kenya, Nigeria and the United Republic of Tanzania.

Informality continues to be the dominant mode of employment, while formal jobs are often in the public sector. Around 85 per cent of workers in Africa are estimated to be in informal employment, with shares varying considerably, from around 67 per cent in Northern Africa and 40 per cent in Southern Africa to over 90 per cent in Central, Eastern and Western Africa (ILO, 2018b, p. 28). Informal employment tends to be associated with low productivity and earnings, and with limited career prospects, social protection measures and occupational safety and health standards. This, together with the role of public employment, is a significant factor shaping the nature of labour markets.

Access to formal, stable employment increases with educational attainment, but even the more highly educated increasingly struggle to obtain decent jobs. Participation in formal labour markets is strongly correlated to educational levels. Still, this does not mean that the better educated are more likely to be employed. In fact, an ILO report on school-to-work transitions finds that youth with the lowest level of education are least likely to be unemployed, because they cannot afford to be idle and are forced to engage in, for example, subsistence agriculture (ILO, 2017a). However, because the increase in the number of decent jobs is not keeping pace with the rising numbers of labour entrants with relatively high educational levels, even educated youth will increasingly struggle to find stable, well-paid employment in skilled occupations and professions and in modern enterprises (Elder and Siaka Koné, 2014; Fox and Thomas, 2016, p. 33).

2.1.3 Aligning skill supply and demand: The crucial constraint of lacking demand and its implications for investment in education across countries with different characteristics

To an important extent, Africa's weak (youth) employment outcomes result from a lack of decent jobs. Fox and Thomas (2016, p. 33) suggest that "for all the discussion of a skill mismatch in sub-Saharan Africa", the principal problem is a lack of jobs, rather than misalignment between the skills that workers have and those needed on the labour market. The lagging structural transformation to higher-productivity industry and service activities, combined with strong population growth and increasing educational attainment of younger cohorts, means that growing numbers of labour entrants are expecting and looking for a type of job that does not (yet) exist (Fox et al., 2016, p. 3).

The role that TVET can play in improving (youth) employment outcomes may depend on a country's resources and level of economic transformation. King (2014, p. 147) argues that "high-cost good-quality diversification of general education, when closely linked to the labour market, is a good investment for richer countries", but observes that poorer countries may only be able to achieve minimal diversification at relatively high costs, implying that for these countries investments in foundational or core skills may

be more appropriate. On the topic of structural transformation, Allais (2022) argues that the generally low level and slow pace of industrialization in sub-Saharan African countries results in low numbers of well-paying jobs requiring the type of technical expertise that TVET provides. In the absence of major structural economic and labour market reform, therefore, TVET should not be seen as the solution to large-scale educational or social problems (Allais and Wedekind, 2020) and “the real issue is one of economic development rather than the efficiency of VET systems” (McGrath et al., 2019, p. 5). Combined, these observations may be seen to imply that there is a greater role for diversified TVET systems in countries where there is relatively strong labour demand for technical skills and sufficient funding to ensure that TVET provides learners with the skills that they need.

Some research has grouped African countries in different categories, and it could be argued that each category might consider a particular approach to TVET. There is “extraordinary variety and contradictory characteristics of recent economic experiences across and within African countries” (Cramer et al., 2020, p. 8), and the extent to which supply side constraints are the only or even the principal challenge is likely to differ between countries and, within those countries, between regions, sectors and occupations. Arias et al. (2019) categorize African countries into five groups, based broadly on their level of structural transformation and business environment. They suggest that in countries with a higher level of transformation and a better business environment, it is most appropriate to invest in higher-level (post-secondary) technical skills. For countries where economic structure and policy environment are weaker, they recommend a stronger focus on reforms to promote economic transformation and improve the business environment, accompanied by well-targeted investments in skills development, such as higher-level TVET for priority growth sectors or training to improve the livelihoods of workers in low-productivity sectors and informal employment. An (additional) focus on training of disadvantaged youth and adults is recommended for all country groups. (See Appendix A for a more elaborate description of country groups and recommendations.)

No clear consensus has yet emerged on the criteria that could best be used to categorize countries and develop recommendations for TVET for each category. For example, where Arias et al. (2019) use criteria related to structural transformation and business environment to categorize countries from an economic perspective, the United Nations Conference on Trade and Development (UNCTAD), in 2011, developed a typology based on industrialization level and industrial growth. Other typologies consider, among other factors, the strength of economies based on the share of regional GDP that they produce (Newman et al., 2016, p. 2), and economic growth and poverty levels (Arndt et al., 2016). Other categorizations focus not on economic features but on education systems. For example, a recent World Bank report on education in sub-Saharan Africa categorizes countries based on their rates of gross education enrolments, out-of-school children and retention (Bashir et al., 2018). All these typologies generally imply some kind of ranking between identified categories, but countries that are considered high performers in one typology might rank very differently in others. For example, Ethiopia is considered to be a “star performer” by Newman et al. (2016) but only at the “infant stage” by UNCTAD. There are also stark differences between categorizations of industrialization, growth, development and poverty reduction on the one hand, and rising educational enrolments on the other (Allais, 2022). All this suggests that relationships between indicators of business environment, industrialization, growth and poverty reduction, and education levels, are inconsistent on the African continent and, therefore, that each country’s TVET system needs to be tailored to the country-specific context so that it responds to its own challenges and opportunities.

TVET systems in Africa do not seem to be well-tailored to contribute optimally to addressing employment challenges. While widely differing country contexts imply that the role and design of TVET systems should vary between countries, and even between sectors and occupations, formal TVET systems in Africa seem to be relatively similar to each other, suggesting that they have not developed organically in relation to specific economic developments. These features of TVET systems, and associated challenges, are described in more detail in the following section.



► 2.2 Features and challenges of the TVET system in Africa

This section briefly describes the design, performance and challenges of TVET systems on the continent, discussing continental strategies and priorities, the structure and size of TVET systems, TVET governance and financing, and TVET performance and challenges.

2.2.1 Continental strategies and priorities

TVET is seen as an important priority at the continental level. The Continental Education Strategy for Africa 2016–2025, adopted by the African Union in 2016 (AU, 2016), calls on Member States to enhance support and investment for TVET, and includes as a strategic objective the expansion of TVET opportunities at secondary and tertiary levels, and the strengthening of linkages between education and training systems and the world of work. The AU's Continental Strategy for TVET to Foster Youth Employment, adopted in 2018 (AU, 2018) aims for TVET to support economic development and contribute to poverty reduction. The strategy recognizes the importance of TVET for the strengthening of (youth) employability, as well as for the adaptation of technology and innovation, transformation of national production systems and industrialization of the economy.

At the same time, there is also broad recognition that TVET systems across the continent have important weaknesses that stakeholders to date have been unable to address. Various AU documents, while recognizing reform attempts, describe TVET in most African countries as weak (AU, 2007). The AU's TVET strategy (AU, 2018) identifies persistent weaknesses in TVET systems across the continent that sustain and exacerbate mismatches between skill supply and demand. These weaknesses are found to include fragmented governance structures with limited implementation capacity, supply-driven and underfunded training provision that has limited infrastructure and offers limited quality, gender-based inequities and geographic disparities, and unregulated traditional apprenticeships, among other factors (box 2.1). The AfDB, while recognizing that successful programmes can be found on a small scale, describes formal TVET systems as disconnected from labour market demand, small, weak and often fragmented (AfDB, 2020). Similar observations are shared by a variety of other organizations and sources.⁴ The persistence of these challenges, despite numerous reform attempts by Governments and donor organizations, implies that effective interventions that structurally address underlying constraints have apparently not yet been identified or implemented. Indeed, Aggarwal and Gaskov (2013) find that TVET policies often appear to be based on idealism and policy borrowing with insufficient consideration of local context, especially risk factors and implementation challenges.

⁴ See, for example: Allais (2020a, 2022); Arias et al. (2019); ICQN/TVSD (2014); King (2013); McGrath et al. (2019); Oketch (2007, 2014); Walther and Boukary (2016); Dobbs et al. (2012); and Santos et al. (2019).

Box 2.1 Features of the current TVET landscape in Africa, according to the African Union's Continental Strategy for TVET to Foster Youth Employment

The AU's Continental TVET Strategy recognizes that promising TVET policy reforms are taking place in a number of African countries. These include the active participation of the private sector in the national TVET system, an overhaul of the traditional apprenticeship system, the creation of national bodies to oversee training and new laws destined to strengthen training systems. However, the Strategy also acknowledges common challenges across TVET systems:

1. TVET is mostly supply-driven, rather than being responsive to skills demand
2. fragmented and disjointed governance across multiple ministries and public agencies
3. fragmented structures for standardization, certification and qualification
4. limited access to training on modern skill needs stemming from global trends
5. growing importance of private TVET provision, which is not always included in national skills development policies
6. image of TVET as a second-best option for the academically less able student
7. underrepresentation of women in key professional sectors
8. limited access to TVET for individuals in rural areas and from low-income households
9. low quality due to poorly trained instructors, obsolete equipment and lack of training materials
10. underfunding of TVET.

Source: AU (2018).

At the continental level, the development and operationalization of qualifications frameworks appears to be a main point of focus. Qualifications frameworks and frameworks for the recognition of qualifications are considered by various actors to promote labour mobility. Continent-wide agreements on the recognition of qualifications were adopted in Arusha (United Republic of Tanzania) in 1981 and revised in Addis Ababa (Ethiopia) in 2014.⁵ The development of the African Continental Qualifications Framework (ACQF) was officially launched in 2019. When operational, the ACQF aims to facilitate lifelong learning and mobility of learners and workers by contributing to comparability, quality and transparency of qualifications; facilitating the recognition of diplomas and certificates, and promoting cross-border collaboration.⁶ Linked to this, the AU is in the early stages of developing a Pan-African Quality Assurance and Accreditation Framework. Where harmonized frameworks are applied by several countries, they are seen to be particularly useful to promote cross-border labour mobility. The AU envisages establishing such a framework that will cover the entire continent, with the aim of enhancing comparability, quality and transparency of qualifications at all levels and from all sub-systems and facilitating the recognition of credentials and therefore the mobility of learners and workers across the continent (AU, 2020). At the same time, groups of countries in Southern Africa, West Africa and East Africa are all (in the early stages of) developing their own regional qualifications frameworks to facilitate the recognition of qualifications across borders. (See Appendix B.)

⁵ The Arusha Convention was initially focused on higher education and was widely seen as not being implemented. The Addis Convention is officially named the "Revised Convention on the Recognition of Studies, Certificates, Diplomas, Degrees and Other Academic Qualifications in Higher Education in African States".

⁶ More information is available at <http://www.acqf.africa>.

However, it is unclear if the continental and regional frameworks will be effective instruments to address the current constraints on labour mobility. There is no conclusive evidence that lack of recognition of qualifications is the main barrier to labour mobility and that qualifications frameworks will improve labour mobility. Moreover, the capacity and resources required to develop, operate and continuously update qualifications frameworks may prove overly demanding for many African countries at their current level of development (Arias et al., 2019). Indeed, the AU has observed that there are many weaknesses within regional bodies and that it is unclear whether they have the capacity to develop and implement regional qualifications. Certainly, progress has been slow to date. Going forwards, ensuring cooperation and complementarity, rather than overlap, between national frameworks, emerging regional qualifications frameworks and the ACQF will be a critical issue, as will guaranteeing sustainable funding (AU, 2020).

2.2.2 Structure and size of TVET systems

TVET can be formal, informal or non-formal, take place at TVET institutions and workplaces, and cater for the future or current workforce. The full array of TVET consists of a range of different types of provision. This includes formal institution-based TVET programmes, offered by public and sometimes private institutions primarily, to attain a national qualification; dual or apprenticeship programmes, also offered to earn a national qualification, with a (strong) workplace component and a (strong) educational institution component; short or longer skills programmes that may lead to national credits or industry certification/recognition or company certification/recognition; orientation/induction programmes that provide an overall introduction to the workplace, including health and safety issues; informal on-the-job training on new technology; workplace-experience programmes/internships for new entrants; general ongoing informal on-the-job training, such as training by supervisors or team members on new work tasks.

Most training in Africa is non-formal and informal with workplace learning traditionally having a particularly strong role.⁷ Public, private or non-governmental organizations are significant providers of various types of non-formal vocational training (Adams et al., 2013). Walther and Filipiak (2007) conclude, from a survey of seven countries, that the vast majority of TVET provision may consist of on-the-job training, self-training and informal apprenticeships. A wide range of remedial training programmes is also available to support livelihoods and small-scale entrepreneurship, including public works with a training component supporting entrepreneurship in West Africa, comprehensive programmes with a significant training and coaching component aimed at improving the productivity of the rural poor, and programmes to promote small-scale entrepreneurship and improvements in the productivity of existing small-scale entrepreneurs (Ngatia and Rigolini, 2019). Some industries have training workshops, while some large companies run their own TVET centres, leading to internationally recognized certificates (Franz, 2017). Information on private provision is even more patchy than that available on formal public provision (McGrath et al., 2019).

Formal TVET can be provided in various forms and at different levels (Walther and Carton, 2017). Formal TVET can be offered as a vocational stream within formal secondary education. TVET can also be provided as discrete programmes, often in institutions, which may be called vocational or further education colleges, industrial training institutes, vocational training institutes or centres, polytechnics, and similar. Such programmes can be offered at the lower and upper secondary level, and as post-secondary programmes. TVET programmes can be of varying duration. Broadly, initial TVET courses tend to be one or more years, whereas shorter courses are more likely to be offered to those already in the workforce. Arias et al. (2019) argue that the evidence is strongly against early specialization, as it comes at the cost of acquiring the foundational or core skills that are key for both work and further learning.

⁷ The AU, in their Continental TVET Strategy (AU, 2018), defines these types of TVET as follows: formal training is governed by precise rules, essentially comprising training in public or private schools with fixed-term cycles culminating in a state diploma or certificate. Informal training is provided in structures, organized or not, with their own rules of trade, which often exist without necessarily being written or formalized. It can comprise, for example, corporate training (including informal apprenticeships) and training through mentoring, observation and workshops. Non-formal training obeys no rules and may be spontaneous; it can include learning on the job.

TVET in sub-Saharan African countries shows fairly similar patterns. In many countries, pupils can start TVET tracks after finishing primary or lower-secondary education (Santos et al., 2019). TVET at higher levels is a recent development on the continent (McGrath et al., 2019), as is formal on-the-job training. TVET can be offered through elective subjects during schooling, as occurs, for example, in Namibia and Nigeria, or as separate programmes by separate TVET institutions, as is the case in Kenya and South Africa, for example (UNESCO-UNEVOC, n.d.). African countries appear increasingly to be integrating vocational and technical content into lower and upper secondary school curricula, in the belief that this will assist youth in workplaces (Brown and Slater, 2018). For example, basic vocational skills are incorporated into the primary and lower secondary school curriculum in Burkina Faso, Liberia and Mozambique (Santos et al., 2019), and attempts at early vocationalization have been observed in Ghana and Kenya (Oketch, 2007).

Formal TVET caters to a limited number of learners compared to general education enrolments.

Although countries have invested in increasing access to initial TVET, enrolment rates are very low compared to academic secondary school enrolments, which are themselves still low in most countries and increasing from a historically low base. In most countries, learners in formal TVET comprise between 1 per cent and 6 per cent of youth in education who are between 15 and 24 years old (ICQN/TVSD, 2014). On closer inspection, the picture is more nuanced. For example, South Africa offers many broadly vocational subjects in its general education curriculum. On average, 12.2 per cent of students in sub-Saharan Africa in upper-secondary education were enrolled in vocational programmes in 2014 (up from 13.4 per cent in 2010). In lower-secondary education, the share increased from 2.7 per cent to 3.1 per cent in the same period. However, such averages hide significant differences between countries. For example, enrolments in formal initial TVET in Angola and Cameroon are relatively large, while in Kenya and Mauritania they are tiny (Santos et al., 2019). Due to data issues, however, it is unclear whether like is being compared with like.⁸

2.2.3 Vision, governance and financing of TVET systems

Expectations regarding the impact of TVET for achieving diverse development objectives can be overly ambitious.

A coordinated strategy or national policy that creates a shared vision for TVET priorities and aligns the efforts of key stakeholders tends to be non-existent or weakly designed in many countries. Oketch (2014) argues that one of the reasons for the ongoing weakness of formal TVET provision in Africa is that systems tend to have too many aims, which can, at times, be conflicting: curing youth unemployment; supporting innovation and technical change through technological know-how; offering an educational alternative to those who have not succeeded in school; training mid-level skilled workers; and reducing poverty by providing the skills that lead to employment. This multitude of objectives can result in a failure to prioritize, a risk that is exacerbated when governance structures are fragmented, implementation capacity is weak, and funding is limited, as is the case in many African countries. This, in turn, leads to a situation where many ambitions and plans exist on paper, but few are implemented well, or at all, in practice.

TVET system governance is often fragmented and suffers from a lack of coordination.

In many countries, poor coordination and weak clarity of functions across different actors in the system complicate the implementation of TVET strategies (Santos et al., 2019). “Multiple agencies at the central and local levels are involved in skills development strategies, making skills ‘everyone’s problem, but no one’s responsibility’” (Arias et al., 2019, p. 1). Even where coordinating bodies and autonomous agencies for oversight exist (like in Malawi, Mauritius, South Africa and the United Republic of Tanzania), effective coordination is far from guaranteed. Common causes of poor performance include overlapping mandates; weak financing and accountability mechanisms; limited capacity; unclear governance arrangements that hamper the autonomy of public TVET providers; and insufficient involvement of key stakeholders, such as private businesses and non-state TVET providers in semi-autonomous national TVET governing bodies (Santos et al., 2019). Similarly, while over the past decade many countries in sub-Saharan Africa have set up agencies for quality assurance and accreditation, the capacity of such agencies is still limited (Arias et al., 2019).

⁸ More information on data challenges can be found in section 1.2 on methodology in Chapter 1.



Public funding for TVET tends to be viewed as insufficient and unstable, and fee structures for learners can be inequitable when compared to other forms of education. A consistent trend across the continent is that TVET systems receive a very small share of education budget allocations (Santos et al., 2019). Current policies and institutional arrangements are not seen as providing stable funding, nor as fostering productive partnerships with the private sector, and aspects such as teacher training, facilities, equipment and curricula development are generally underfinanced (Ngatia and Rigolini, 2019). TVET has also frequently not been free for learners, in contrast with higher education (although that situation is also starting to shift and many countries now have a second layer of private higher education) (Arias et al., 2019).

Various countries in Africa collect levies from the private sector to finance training. Various African countries have employer-financed training levies, intended to incentivize training, and in some cases they are the main source of financing for TVET (Johanson, 2009; Ngatia and Rigolini, 2019; Palmer, 2020; Walther and Uhder, 2014). In some cases, these funds are managed by (semi-)independent structures with stakeholder representation (commonly called “training funds” or “skills development funds”), but in others they simply finance the regular public provision of TVET. For example, more than 80 per cent of TVET provision in the United Republic of Tanzania is financed through a skills development levy (Ngatia and Rigolini, 2019). Where both apprenticeships and training funds exist, the funds are often used to cover some of the costs of the apprenticeships to employers (Franz, 2017).

There is, however, little evidence of a positive impact of levies on training incidence and outcomes. A recent review of such levies in the SADC, where such levies have existed for over ten years in some countries, found that (with some exceptions) they generated few benefits for either employers or employees, and that they did not appear to be effective in creating training incentives and improving employability. In many cases, the systems for allocating funds were considered poorly designed, inefficiently managed and governed, inadequately monitored and/or evaluated. In many cases, surpluses were accumulated, suggesting that lack of funds is not the only problem for TVET systems but that capacity to spend funds can also present a challenge. These various weaknesses can partially be linked to the lack of employer involvement in decision-making boards and structures. Indeed, employers frequently considered the levies simply as an additional tax (Palmer, 2020). A slightly older survey of training funds in West and Central Africa found that, in 8 out of 12 cases, the national treasury absorbs most of the funds, leaving inadequate funds available for training. This occurred despite all funds formally having a tripartite or bipartite governance structure; as these structures were weak in terms of functioning and power, the Government retained significant power to direct funding as it chose (Walther and Uhder, 2014). The allocation of funding from training funds tends to favour larger enterprises, a risk that can potentially be mitigated through the use of sector-based levies, as sectors tend to have different compositions of large, medium and small firms (Ngatia and Rigolini, 2019).

2.2.4 Performance and challenges of TVET provision

Data on the relative labour market returns on formal TVET provide an unclear picture of the benefits of TVET. Studies carrying out rigorous evaluation of TVET are not usually conducted in Africa and it is therefore difficult to draw conclusions about labour market returns on TVET compared to general and higher education. Based on the limited information available, it is observed that labour market returns on formal TVET are often not better, and sometimes worse, than returns on high school education (Bhorat et al., 2016; Santos et al., 2019). In Egypt, a study found the returns on formal vocational secondary education to be virtually the same as attaining no formal education at all (Krafft, 2018). What is hard to discern is the cause of the relatively poor labour market outcomes of TVET, as it can be, at least partially, the result of the fact that compared to general education it usually serves students who have poorer backgrounds and parents with lower educational achievement, as well as weaker educational backgrounds and fewer foundational or core skills (Santos et al., 2019). Globally, the impacts on the labour market outcomes of graduates of formal secondary TVET in low- and middle-income countries can be positive but are often small and usually very heterogenous (ILO et al., forthcoming). The differences between labour market returns on TVET and on general education may also vary over time. The relative returns on TVET might decline over time, particularly compared to university graduates. Still, for individuals who are unlikely to enter or complete university, due, for example, to limited academic aptitude or financial constraints, TVET would still have labour market value (Santos et al., 2019, p. 189).

Various common challenges constrain TVET performance across the continent. These concern: early tracking of learners into TVET; outdated programmes; limited practical training; weak trainers and infrastructure; ineffective attempts to implement competency-based training; and across-the-board gender inequalities.

To examine these six constraints in more detail:

1. *Early specialization* may reinforce weaknesses of TVET systems when it comes at the expense of building foundational or core skills, which may then reinforce the vicious circle of low status TVET (Arias et al., 2019). Oketch (2007), for this reason, argues for longer periods of general good-quality education, followed by short periods of specialized training. Similarly, Cramer et al. (2020, p. 182) suggest that “improvement in the levels of literacy and numeracy achieved in African secondary schools could make in-employment training much more effective; and these improvements would probably have a more positive impact on labour productivity than expenditures to improve ‘skills’”.
2. Public formal TVET is generally seen to be *outdated* and out of touch with *labour market needs* (Billetoft, 2016).
3. *Lack of practical training* is a consistent problem for formal TVET provision. Employers see the lack of practical training as one of the main weaknesses of TVET in the region (Santos et al., 2019). Beyond the aforementioned budget constraints that limit the purchase, maintenance and use of infrastructure and equipment, this lack of practical training can also be linked to inflexible systems of provision, which are difficult to combine with work (Johanson and Adams, 2004; Santos et al., 2019).
4. *The quality of teacher training and outdated facilities* are seen as a problem in many countries (Billetoft, 2016; Santos et al., 2019). Relatively few teachers in public TVET institutions have industry experience, in part because of the requirements for teaching qualifications (Arias et al., 2019). Teacher education is sometimes university-based and very similar, if not identical, to schoolteacher training or, in some cases, teachers are skilled workers with limited or no training as teachers. Exceptions are found in the United Republic of Tanzania, which has a dedicated Vocational Teachers Training College, and Cameroon, with its Normal Schools for Teachers of Technical Education (Arias et al., 2019, p. 11).

5. Most countries have attempted to implement or are implementing *competency-based training*, but there is no evidence of successful achievement in terms of either classroom practice or work readiness (Fleisch et al., 2019).
6. Gender norms and information failures prevent women from enrolling in TVET, especially in male-dominated science, technology, engineering and mathematics (STEM) fields that tend to lead to more highly paid jobs. Women that do enrol can face uncondusive environments that negatively affect their performance and that can cause them to drop out prematurely (ILO et al., forthcoming). Box 2.2 discusses gender inequities in TVET in more detail.

Box 2.2 Gender inequity in TVET

In general, TVET enrolments and completion are highly gendered, and these differences matter for future earnings. Young women and men tend to choose different TVET fields. The gender gap is particularly large in the more “technical” and industrial fields, such as mechanics, electricity, construction, plumbing, carpentry and welding. In Burkina Faso, for example, men outnumber women 5:1 in the industrial sectors. In Uganda, three programmes – construction, motor vehicle maintenance and carpentry – account for two thirds of male enrolment, whereas cooking or catering, beautician services, business-related studies and tailoring account for two thirds of female enrolment. In most countries, there are also significant gender imbalances in pass rates in favour of male students (despite exceptions such as Mozambique and the United Republic of Tanzania, where female pass rates in TVET are slightly higher). There is also gender inequity on the labour market; female-dominated occupations tend to offer substantially lower wages on average than male-dominated occupations. In Uganda, for example, women who enter male-dominated sectors make as much as men, and three times more than women who stay in female-dominated sectors. Within occupations, men tend to hold positions with more influence and responsibility and higher rates of pay than women with similar levels of skills or experience. Women are also more likely to work in the informal economy and therefore their employment situation is less secure, more unregulated and subject to a host of risks, including poor working conditions, sexual harassment, violence, etc. Girls and young women need to escape from the confines of unpaid domestic labour and agricultural feminization and engage in higher-paying, more secure, formal wage employment – something that only becomes increasingly difficult after marriage and/or motherhood.

Gender inequities in TVET are partly driven by factors that are external to the TVET system. Societal norms which shape beliefs, perceptions, preferences, attitudes and behaviour that systematically disadvantage women and girls need to be addressed in order to promote and ensure gender equity and economic empowerment. As in other regions of the world, socio-cultural gender norms and dynamics result in women being over-represented in some sectors, especially those such as the care and service sectors, and under-represented in others.

There are also elements within TVET systems that cause, sustain or exacerbate gender inequities. Such internal drivers can include limitations on access; unreceptive and unsafe learning environments; lack of gender awareness among instructors and in curricula; and the absence of female staff and role models.

TVET becomes more accessible for girls and women, especially those in remote areas and with childcare or domestic responsibilities, when there is flexibility in the timing and location of delivery. Programmes that do not consider accessibility constraints may experience lower enrolment and retention of women. Interestingly, the recent COVID-19 pandemic may present an opportunity to improve flexibility in TVET, as TVET institutions have moved towards alternative forms of delivery, such as online classes, virtual learning and shorter, more module-based courses.

TVET institutions can present an unsafe and unwelcoming environment for women and girls, especially if there is a lack of female instructors, staff and role models. Female TVET participants describe an “atmosphere of masculinity that is strange and often offensive to women” (Foster, 2012) that sometimes includes violence and derisive language from fellow learners and even instructors. Post-secondary institutions, including TVET colleges, tend to be seen as ‘male territory’ with a prevalence of sexual innuendo and harassment. In Zimbabwe, post-secondary institutions, including TVET providers, can present an unfriendly, if not “overtly gender-based, hostile environment for both female students and female staff members” (Gaidzanwa, 2007).

TVET instructors may unconsciously sustain gender inequity due to a lack of gender-awareness. Gender bias is likely to be perpetuated in the pedagogical training that instructors receive and might result, for example, in male students receiving more attention, even in cases where the instructor is female. Instructor training and pedagogical approaches to teaching and learning in TVET still have much room for improvement in this respect.

Curricula can also reinforce gender inequality in TVET, for example when existing inequalities are not considered in curriculum design and then are transmitted through the curriculum in a way that strengthens stereotypes. Gender equality is likely to be neglected at multiple stages of the curriculum development process. Women are often under-represented in initial consultations, as well as in the design and writing stages of curriculum development. With certain exceptions, TVET curricula on the continent continue to present stereotypical and binary perspectives, rooted in patriarchal socio-cultural tradition. Curriculum content can reinforce women’s invisibility or discriminatory stereotypes; for example, through the use of male pronouns and male characters in illustrative case studies, or by not portraying men and women (and their work) as having equal value.

Available evidence on effective interventions to improve gender equity in TVET points to counselling and the presence of mentors and role models. Not all interventions to promote gender equity in TVET are effective; even in cases where practices to increase opportunities for girls and women in non-traditional sectors exist, many girls and young women still choose not to engage. Nevertheless, studies in Uganda show that women who received counselling are much more likely to move into non-traditional sectors. Girls and women are also much more likely to choose and remain in a non-traditional sector if they have a champion, mentor or role model in the TVET centre. In Uganda, for example, the presence of female role models meant that women were more likely to persevere with their education, and women in non-traditional sectors especially benefited from additional support.

Sources: Adler et al. (2004); Akinsanya, and Onah (2012); Amoamah et al. (2016); Blumberg (2008); Bonzet and Frick (2019); Buehren and Van Salisbury (2017); Campos et al. (2015); Carlana (2019); Chakravarty et al. (2017); Cheruiyot and Munyi (2019); Foster (2012); Gaidzanwa (2007); Hey (2010); ILO (2020a); Johanson and Okema (2011) [in Arias et al. (2019)]; Meena (2007); Mlama (1998); Rubagiza (2010); Simmonds (2014); UNESCO (2016, 2020a); UNESCO and SADC (2013); World Bank (2020).

Formal apprenticeships are not yet widespread but, where they exist, they tend to be attractive to youth. Formal apprenticeships remain a tiny fraction of formal TVET systems, which are themselves small. On the continent, formal apprenticeships are most prevalent in Southern and Eastern Africa, although even there they are far from widespread (Franz, 2017). South Africa, the country with the most extensive formal apprenticeship system (Franz, 2017), has fewer than 30,000 graduate apprentices a year (von Maltitz, 2018). Egypt also has a relatively large formal apprenticeship system (box 2.3). Where they do exist, apprenticeships are attractive to young people because the quality and relevance of training is high and they lead to better labour market outcomes. Franz (2017) discusses the fact that, in Malawi, apprenticeship training is in high demand and points out that, in 2015, more than 9,000 youth were reported to have

applied for fewer than 1,300 apprenticeship places. Where apprenticeships exist, employer involvement tends to be limited to training delivery, and there are only a few cases where employers assume a more influential role in the system as a whole (Franz, 2017).

Box 2.3 Formal apprenticeships in Egypt

Egypt has a long history of providing apprenticeship and work-based learning schemes, both informal and formal, and is currently offering a variety of models, mostly for young learners with limited pilots for adult apprentices.

Dual system under the Ministry of Education and Technical Education

The Dual System (DS) was introduced into Egyptian technical secondary schools in 1994, with the support of the German Federal Ministry for Economic Cooperation and Development, through a bilateral Egyptian–German technical cooperation programme, which continued to provide technical assistance until 2007. It is highly influenced by the German dual system model and it is the largest formal work-based learning scheme in Egypt in terms of number of students and schools. The Dual System in Egypt combines two days of formal schooling at the school with four days of in-company training, giving the students the necessary theoretical understanding and hands-on experience demanded in the market. Today, the DS is a fully integrated scheme within the Egyptian education system, with both corporate and public sector institutions responsible for its governance and outcomes. The three-year apprenticeship scheme is offered in 24 out of 27 governorates in Egypt, with 21 dedicated DS schools and 198 DS classes within traditional technical secondary schools. Around 4,000 companies (out of 25,000 registered companies) accommodate and train students every year. In 2017, almost 42,000 students were enrolled in 47 different occupations (covering the four main sectors: industrial, commercial, tourism and agriculture).

Productivity and Vocational Training Department (PVTB) administered by the Ministry of Industry

One of the main Egyptian apprenticeship schemes, the Productivity and Vocational Training Department (PVTB) was created in the 1950s by the Ministry of Industry, to provide a formal apprenticeship scheme involving enterprise-based work and training within the industrial sector. The Department's 45 centres, geographically distributed among 17 governorates across the country with some 22,000 students enrolled, were originally designed to meet the needs of large public enterprises from the industrial sector. However, since the private sector started to gain ground as an important employer, it has also been able to participate in these schemes.

Students typically enter the programme at the age of 15. The programme lasts for three years, the first two of which are spent in a vocational training centre and during the third year the majority of the time is spent in an enterprise with one or more days a week spent in a training centre (the number of days varies according to the vocation selected). The content of the programme is heavily vocational and practical, with roughly one third of the total time devoted to enterprise-based work and training, one third to practical work in the training centre, one fifth to vocational theory, and slightly less than 10 per cent being general education. Apprentices sign a training contract devised by the PVTB, to which the employer and the training centre are also signatories. At the end of the three-year scheme, students receive a diploma, which is recognized by the Ministry of Education and Technical Education and is equivalent to the Technical Secondary School diploma.

Efforts to promote formal apprenticeship are under way in many countries, often supported by donors. Many countries in Africa have, or are in the process of developing, frameworks and policies for apprenticeships and internships to enhance the workplace experience of youths, often with the support of development partners (Arias et al., 2019).⁹ In some cases, incentive schemes and attempts at partnerships with employers have been set up (Arias et al., 2019). The United Republic of Tanzania started formal apprenticeships in 2017 with the support of the ILO, initially in the tourism sector, in response to serious skills shortages and employers incurring high costs to acquire and train their staff. Some 85 per cent of apprenticeship graduates were able to secure full-time employment within three months of graduation. Based on the success of this programme, the United Republic of Tanzania has launched graduate apprenticeship programmes in banking and insurance at university level (ILO, forthcoming (b)).

Beyond formal and initial TVET, approaches that are found to hold some promise include informal apprenticeships, entrepreneurship training and agricultural extension services. Considering the large scale at which informal apprenticeships are implemented in Africa, interventions to improve their quality and relevance could generate a substantial impact. Various interventions already exist, such as introducing elements of classroom training; training workplace trainers (“master craftspersons”); improving working conditions; and bringing *informal apprenticeships* into certification systems (Aggarwal and Gasskov, 2013). However, these initiatives are sparsely evaluated and in many cases they are not implemented at the scale needed to achieve a significant impact (Ngatia and Rigolini, 2019). Some short-term training programmes to support *self-employment and small-scale entrepreneurship*, such as those implemented, for example, in Kenya, South Africa, Togo, and Uganda, show a positive impact, particularly those that include grant support (Ngatia and Rigolini, 2019). Business start-up training also has mixed, but generally modest, results (Ngatia and Rigolini, 2019). A meta-analysis of youth employment programmes found small, positive outcomes and suggested that comprehensive programmes, including substantial training, work experience and support in accessing labour markets, might have the best chance of success (Kluve et al., 2017); a meta-review in South Africa revealed similar findings (Altman and Marock, 2008). On the other hand, a meta-analysis of entrepreneurship training in low- and middle-income countries (including in sub-Saharan Africa) found no significant positive effects of most interventions targeting microenterprises or youth self-employment on employment, sales revenue or profits (Cramer et al., 2020, p. 182). Given the large proportion of people still working in agriculture, *agricultural extension programmes* are important when thinking about skills formation in Africa, but these have not lived up to expectations. Many farmers have neither access to productivity-enhancing technology, nor the knowledge of how to use it. Moreover, extension programmes are often small; they fall under the auspices of the agriculture ministries and have, at best, weak linkages with education systems. Additionally, they seldom address gaps in foundational skills – literacy and numeracy – which are important for the adoption of new technologies (Ngatia and Rigolini, 2019).

⁹ Ngatia and Rigolini (2019) discuss development interventions aimed at informal apprenticeships since the 1980s (in Benin, Nigeria, Togo and Zimbabwe) and which can now be found in many countries.



► 2.3 The role of social partners in TVET

Employers and other social partners should play a major role in TVET system design and delivery, but in Africa their role is generally still limited. The engagement of social partners ideally includes contributing to determining national skills needs; shaping qualifications, occupational standards, curricula and assessments; provision and financing of training; and knowledge generation. There is little published research on any of these issues in Africa. This section briefly considers the available Africa-specific literature on stakeholder involvement in formal structures for engagement; in the design and implementation of competency-based training and qualifications frameworks; and in the provision of workplace learning.

2.3.1 Sector skills councils and other formalized collaboration structures

Various countries in Africa are making efforts to formalize and facilitate social partner engagement in TVET. Senegal, for example, has enacted legislation to establish various formal structures with social partner representation (Ministère de la Formation Professionnelle, de l'Apprentissage et de l'Artisanat, 2018). Botswana and South Africa both have Human Resource Development Councils, with South Africa's body having been the subject of critical evaluation and research (Allais et al., 2017; Human Resource Development Council of South Africa, 2014; Kraak, 2008a).

Generally, these initiatives take place at the sector level, with varying objectives and with limited information on their effectiveness. Sector skills bodies, usually called sector skills councils or sometimes industry skills councils, have become a focus of policy attention in many countries, because it is believed that they can promote industry involvement in TVET systems and policies, to ensure greater responsiveness and relevance to employers' needs. Sector skills bodies are usually created as autonomous bodies overseen by a government ministry structure, and with an official remit created through legislation or regulation (ILO, 2021b). Their roles can include advising Government and education and training providers; oversight of the development of qualifications and occupational standards; and quality assurance. In Africa, countries that already have such structures or are establishing them include Botswana, Côte d'Ivoire and the United Republic of Tanzania, among others. The governance structures usually include representatives from employers' and workers' organizations as well as Government; some, like Gambia, Ghana and South Africa, also have representation from other constituencies (ILO, 2021b). South Africa, the African country with the longest experience with sectoral structures, has had Sectoral Education and Training Authorities (SETAs) for over 20 years, which cover all economic sectors (Akoojee et al., 2005; Allais, 2013; Kraak, 2004, 2008b). In other African countries, where initiatives are more recent, the number of sectoral skills bodies is still smaller. (See table 2.1 for selected information on some of these initiatives.) Beyond South Africa, there is still little evidence on the effectiveness of sectoral structures in Africa. Employer engagement is clearly a problem, including finding the right level at which to involve employers; another problem occurs when Governments select employer representatives, as Powell (2015) argues was the case in the attempts to build formal representative structures in Mozambique.

Table 2.1 Examples of sectoral bodies for skill development across Africa

Botswana	Human Resource Development Committees operate under the national Human Resource Development Councils. The Committees are supposed to be chaired by key employers in sectors, and include representatives from workers' organizations and other stakeholders, such as representatives from the informal sector. They are supposed to develop sector plans containing information about skills shortages and occupations where demand for skilled workers is expected to be high (ILO, 2021b). Powell (2015) argues that their location, under the national council, supports coordination in planning.
Côte d'Ivoire	Branches Professionnelles involve social partners, supported by a legal instrument. ¹⁰
Ethiopia	Sector Skills Councils were established in the textile and garment and agro-processing sectors with the support of the Federal TVET Agency following a 2019 National Plan for Job Creation 2020–25, which called for such structures to be created in targeted sectors of economic activity. They have undertaken sector studies to identify the skill needs of the industry and allow members to exchange and share their views and experience on skills development issues. According to an ILO report (2021b), these bodies are aligned to a lead industry association; to date, sectoral analysis has been conducted using a mix of qualitative and quantitative methods to review the trends and needs of the sectors.
Gambia	Pilot Sector Skills Councils have been established in the ICT, agro-processing and construction sectors, following the adoption of a 2019 Technical and Vocational Education and Training (TVET) Roadmap for 2020–2024. The intention is for them to provide a platform for employers to feed their training needs into the education and training system, and to support initiatives to address these training needs. According to the ILO (2021b), they have a remit to develop occupational or competency standards, and have worked with the quality assurance agency to formalize apprenticeships and encourage more structured work-based training. Most work has taken place in the construction industry body.
Ghana	The body in charge of TVET, the Council for Vocational Education and Training, has initiated the development of sector skills bodies in targeted sectors; initially, the construction, agriculture, hospitality and tourism sectors (ILO, 2021b).
Kenya	Some sectors have bodies that manage and distribute levy funds; other sector skills bodies are solely responsible for the development of occupational standards (ILO, 2021b).
South Africa	Sectoral Education and Training Authorities (SETAs) have been substantially evaluated, contested and debated (DHET, 2013; Mzalabazo and REAL, 2018; Singizi Consulting, 2007). Over time, they changed in remit and sectoral demarcation, and their number was reduced from the original 33 to 21 (DHET, 2012). SETAs develop sectoral skills plans and fund training interventions based on research and data supplied by employers. They do not play a direct role in developing standards or in quality assurance. The skill needs information that employers supply to SETAs is a major part of the data used in sectoral and national skills anticipation systems, albeit with very uneven and much criticized results (Allais et al., 2017; Allais and Marock, 2020; Reddy et al., 2016; Singizi Consulting, 2020). The same applies to the broader institutional architecture – South Africa has a large number of formal structures for engagement with social partners, but limited results (Centre for Researching Education and Labour, 2021).
United Republic of Tanzania	Six Sector Skills Councils were created in 2019, although their roles need to be more clearly defined and delineated (Singizi, 2021, p. 20). The four key areas which have been identified are determining skills needs and skills planning; training and curriculum review; sectoral coordination; and policy development, lobbying and advocacy.

10 Projet d'Arrêté interministériel N°2018/SEETFP/MEF/SEBPE portant organisation et fonctionnement des branches professionnelles en matière de formation professionnelle et technique [Draft inter-ministerial Order N°2018/SEETFP/MEF/SEBPE on the organization and functioning of professional branches in the area of professional and technical training].

Formal collaboration can also take place at the institutional level. An example of formal social partner engagement at the institutional level is when social partners play a role in the governance of TVET institutions; for example, when they are represented on the board of directors. In Egypt, an initiative is ongoing to increase social partner collaboration with individual training institutions on various aspects (box 2.4).

Box 2.4 Collaboration between Applied Technology Schools and the productive sectors in Egypt

In Egypt, Applied Technology Schools have been set up by the Ministry of Education and Technical Education in partnership with large private sector companies. The formal agreement is signed between the Minister of Education and Technical Education and the private sector company for a duration of between six and ten years (with the possibility of extensions for the same period as the initial contract term).

The new Applied Technology Schools model has three implementation options, depending on the size of the partner(s). Also, the partner does not have to be from the private sector but large public sector organizations with the need for technical education graduates can also take part in this type of agreement. Students in the model do not pay fees and receive an allowance during the on-the-job training.

The main features or guiding principles on which this model was built include the following:

1. **Quality:** The system is built with an uncompromising focus on quality through partnership with international awarding bodies, with which the private sector partner contracts.
2. **Work-based learning:** The new system maintains a balance between work-based learning and classroom-based learning to produce a competitive individual with a balanced personal character and solid skills foundation.
3. **Demand-driven:** Employers become real and committed partners in the system to ensure that it continues to be driven by first-hand local and global industry demands, trends and priorities.
4. **Learner-centred:** The new system will produce a productive worker, who is competitive both locally and internationally, as well as a good leader in his/her community.
5. **Real change:** Industry enhances the management of the school to promote a culture change in the system where work ethics of productivity, efficiency and quality are the norm.
6. **Partnership with industry:** This new competency-based partnership model will play a major role in enhancing the business environment by developing a new workforce that aims to transform Egypt into a global manufacturing destination.

source: UNESCO (2020b).

2.3.2 Competency-based training and qualifications frameworks

Employers' inputs are indispensable when developing standards and tools for training delivery and assessments. Compared to other stakeholders in skill development, such as workers and the Government, employers are considered to be particularly well placed to contribute to these aspects of the skill development system, given their ability to assess current and projected skill needs. These inputs are crucial to develop appropriate qualifications, occupational standards, curricula and assessments. In practice, efforts to engage employers in shaping tools for training delivery and assessment often take place within the context of reforms to introduce competency-based training, usually linked to qualifications frameworks, both of which are discussed further below.

Many countries aim to introduce competency-based education and training in both TVET and general education, but only a few examples exist of successful implementation and substantive private sector engagement. While there currently seems to be a new drive for competency-based training, many countries across the continent have engaged in similar reforms for 10 or 20 years already (AU, 2020). A recent evaluation of competency-based training in seven African countries (UNESCO et al., 2021) found widespread support for the approach, with countries being at varying stages of implementation, and regularly facing difficulties in execution (see also box 2.5). The evaluation found that most francophone African countries have reformed their TVET systems using a competency-based training model, with an extensive role for donors and international organizations; a strong role for these organizations is also noted in anglophone countries that have adopted this model. The evaluation observed that, even where legislation and policies existed, actual implementation was sometimes found to be lagging. In common with other research in this area, the evaluation found that private sector presence was generally limited with rare exceptions, such as in the upgrading of the traditional apprenticeship model in Benin. Also, while employer engagement is seen as a key element of competency-based training, little actual involvement was found, with a few exceptions, mainly involved in engineering and in taking in trainees or trainers for upgrading. The evaluation did not extend to investigating actual changes to pedagogy, curricula and assessment, nor to an analysis of whether the implementation of competency-based training had actually improved the fit between education programmes and workplaces (UNESCO et al., 2021).

Box 2.5 Competency-based training in TVET: Good practices and challenges in Africa

A 2021 study of good practices and implementation challenges regarding the competency-based approach in TVET in seven African countries produced the following findings.

Of the seven countries that were reviewed, **Ethiopia** was found to be the most advanced in terms of the implementation of competency-based training, which was introduced from the start of the 2000s and intensively implemented from 2005–06 onwards. The evaluation describes the biggest achievements as establishing a strong public–private partnership and the development of 675 occupational standards.

Rwanda is described as successful at implementing competency-based training across its TVET system, despite only starting in 2015, with a focus on understanding employment needs and developing occupational standards.

Senegal is described as experimenting for many years, officially adopting the approach in 2015, but only starting to implement it very recently.

Ghana, according to the evaluation, has established public–private partnerships to develop occupational standards, but so far has only involved a small number of TVET institutions and mainly lower-level qualifications.

Benin has piloted a competency-based training approach in the craft sector, focused on informal or traditional apprenticeships.

In **Morocco**, according to the evaluation, competency-based training has been implemented across the TVET system.

Finally, in **South Africa**, the evaluation argues that only two types of training have used competency-based training. This finding is somewhat misleading, given that the reform of qualifications introduced in 1995 in South Africa attempted, and failed, to apply this approach to the whole system (Allais, 2007a, 2011; Gamble, 2020).

Qualification frameworks exist or are being developed in most countries in Africa. All African countries have some kind of qualifications systems, including systems for developing and cataloguing qualifications, and for relating them to each other. In the past 20 years, there has been a trend towards organizing them all into single national frameworks, basing them on learning outcomes or competencies, and engaging employers in this process to ensure their alignment to industry needs. A recent review found that National Qualifications Frameworks (NQFs) are at different stages of development and implementation across Africa. For example, of the 41 countries reviewed, three were found not to have started their NQF development yet, and seven had reached an advanced stage of NQF implementation. Of the remaining countries, 16 were at the stage where they had approved the legal basis for the NQF and had started implementation (AU, 2022). Further details are provided in box 2.6.

Box 2.6 National Qualifications Frameworks in Africa

A recent review of NQFs across Africa found that they are at different stages of development across the continent.

Development not yet started (3 countries)	Chad, Congo, Sao Tome and Principe
Early thinking stage (8 countries)	Burkina Faso, Cameroon, Comoros, Democratic Republic of the Congo, Guinea, Guinea-Bissau, Mali, Togo
Development and consultation (7 countries)	Angola, Burundi, Côte d'Ivoire, Madagascar, Morocco, Sierra Leone, Somalia
Legal act approved and implementation started (16 countries)	Egypt, Eswatini, Ethiopia, Gambia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Nigeria, Rwanda, Senegal, United Republic of Tanzania, Tunisia, Uganda, Zimbabwe
Advanced implementation and review stage (7 countries)	Cape Verde, Mauritius, South Africa and (more recently) Botswana, Namibia, Seychelles and Zambia

Source: AU (2022).

Despite the widespread efforts to operationalize and sustain qualifications frameworks, TVET systems are known to struggle with their implementation, especially in countries with weak capacity. Arias et al. (2019) argue that complex qualifications frameworks tend to overstretch administrative capacity, especially for TVET, and that it is important to avoid overinvesting in complex NQFs and certification systems. There is little published peer-reviewed research about national or regional qualifications frameworks in Africa, aside from South Africa, where considerable research has been undertaken, and some research on Botswana, Ethiopia, Mauritius, Namibia and Tunisia.¹¹ There is evidence, especially from South Africa, that the outcomes-based qualifications framework has introduced an enormous amount of policy complexity, and a raft of new institutions in a context in which most institutions were weak. Beyond Africa, where there is a stronger body of evidence, research is mainly critical or very cautious and provides very little indication that qualifications frameworks have been successfully implemented, let alone achieved the many goals that policymakers associated with them.¹²

¹² For evidence outside Africa see, for example, Allais, 2010, 2014, 2017, 2019; Bohlinger, 2007, 2012; Boudier, 2003; Brown, 2011; Gössling, 2016; Hupfer and Spöttl, 2014; Lassnigg, 2012; Lester, 2011; Méhaut and Winch, 2012; Pilcher et al., 2015; Raffe, 2003, 2011, 2012; Young, 2005.

2.3.3 Workplace training

Employers can provide on-the-job training to employees, apprentices and trainees of TVET institutions. On-the-job training, where learning takes place while a person is participating in and contributing to regular production processes, can occur in a more or less explicit and structured manner and be formal, non-formal or informal. On-the-job training can take place with or without close collaboration with TVET institutions, although generally there is limited collaboration between TVET colleges and factories (Cramer et al., 2020). Generally, on-the-job learning is considered to be especially beneficial because, when implemented effectively, the technical skills that individuals acquire are better aligned with actual labour market skill demand than those acquired through other learning methods, such as classroom teaching or the provision of practical training in venues that provide workplace simulations (OECD, 2018). In addition, it is assumed that a “real work-floor experience” helps to instil essential non-technical skills (such as the ability to work in teams, problem-solving and communication skills) to an extent that is not achievable through other learning approaches (Hoftijzer et al., 2018). Africa-specific research on traditional and formal apprenticeships is discussed below; literature on other forms of on-the-job training was found to be extremely scarce.

Traditional, or informal, apprenticeships are perhaps the most important skills development system throughout Africa, although their importance differs between regions. Since the majority of African workers will, for the foreseeable future, be active in the informal economy (Fox et al., 2016, p. 3), the way in which informal workers are trained is a crucial element of African skills development systems. This form of training might be where skills training in Africa is the most directly related to the needs of workplaces, and there is a relatively large body of research available on traditional apprenticeships.¹³ While there are other forms of informal training for informal labour entrants (Billetoft, 2016), traditional apprenticeships are seen as the most important one (Adams et al., 2013; Aggarwal et al., 2010; Hofmann and Okolo, 2013; McGrath et al., 2019; Nübler et al., 2009; Oketch, 2014; Palmer, 2007, 2009; Robertson, 2017). Ngatia and Rigolini (2019) argue that traditional apprenticeships are the most widespread form of training in the informal economy, and that they cater to the poor and to young people with low educational attainment. They are found predominantly in West Africa. While informal training (including traditional apprenticeships) does occur in the informal economy of Eastern and Central Africa, it does not have the norms and legacies of West African models (King, 2014).

Traditional apprenticeships usually cater to those with low levels of education and rarely include school-based elements. Informal apprenticeships are heterogenous, varying in length, contractual arrangements, quality of training and costs. There is a wide variation in uptake, from 6 per cent of young adults in Uganda to 35 per cent in Ghana (Filmer and Fox, 2014). Informal apprentices mainly have low levels of educational attainment: less than primary education in Côte d’Ivoire, Rwanda, Sierra Leone and Uganda, primary education in the United Republic of Tanzania, and junior secondary education in Ghana (Filmer and Fox, 2014). Informal apprentices are around 21 years old, which, given their generally low educational attainment, implies that they become apprentices quite a few years after they left school, something that Filmer and Fox (2014) consider to be a sign that this pathway may not be the apprentices’ first choice. Traditional apprenticeships seldom contain any elements of formal or school-based education (Ngatia and Rigolini, 2019). A matter of debate in this regard has been how to find ways of improving informal apprenticeships without jeopardizing their dynamism and relevance. Researchers caution against romanticizing informality, which is, as Fox et al. (2016) argue, inversely correlated with income and levels of development.

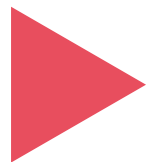
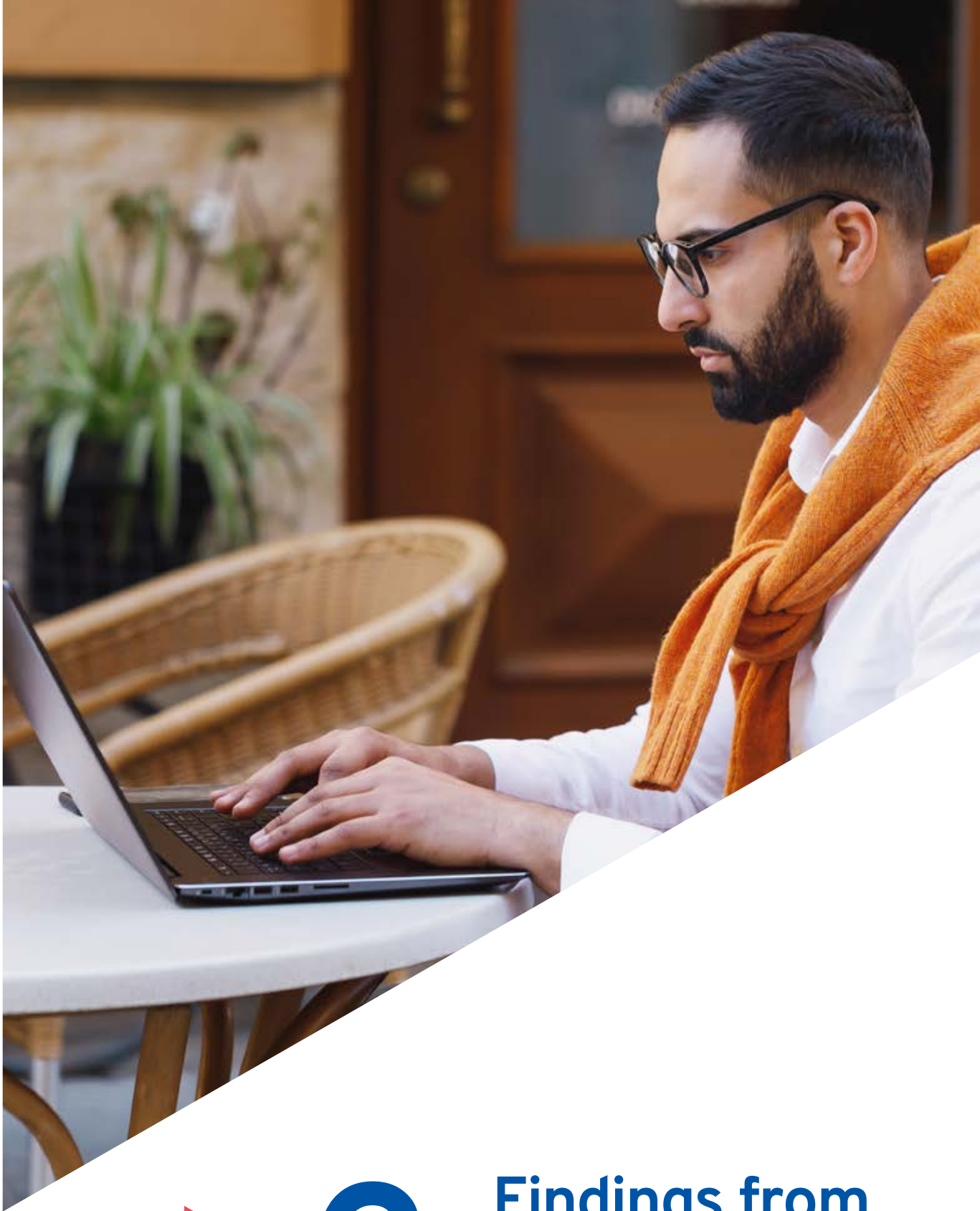
¹³ See, for example, Adams et al., 2013; Ahadzie, 2009; Billetoft, 2016; Darvas et al., 2017; Haan, 2002, 2006; ILO, 2012a; OECD and ILO, 2019; Palmer, 2007, 2009; Walther and Filipiak, 2007.

Formal apprenticeships remain a niche form of training in skills development systems to date, despite ongoing efforts to increase their number. There are only a few formal apprenticeships in Africa and they generally represent only a small fraction of the already limited number of formal TVET systems. They are found mainly in Southern and Eastern Africa, with South Africa the country with the most extensive formal apprenticeship system on the continent (Franz, 2017). Even so, South Africa still has fewer than 30,000 graduate apprentices a year (von Maltitz, 2018). Egypt also has a relatively large formal apprenticeship system. In Malawi, some form of apprenticeship training is supposed to be the default, or dominant, form of formal TVET delivery, but the number of apprenticeships is still small, despite the high demand from learners.¹⁴ Apprenticeships are enjoying increasing attention and in the past few years there have been a number of attempts to establish, revive and strengthen apprenticeships, often through small pilot projects backed by international development partners. Formal apprenticeships are even less well-researched than informal apprenticeships. Where they do exist, formal apprenticeships offer an attractive, though rare, chance for young people to access formal workplaces; she also observes that the role of employers in formal apprenticeships tends to be limited to training delivery, and that they only occasionally assume a more influential role in the system as a whole, as is the case in sophisticated apprenticeship systems that are found, mainly, in Germanic European countries (Franz 2017).

The extent to which employers provide on-the-job training to their employees differs across countries and is correlated to enterprise features such as size, formality and sales market. There is slightly less on-the-job training in Africa than in other parts of the world, with substantial heterogeneity across the continent (Perotti, 2019). About 30 per cent of formal sector firms in sub-Saharan Africa provide training, compared with 35 per cent in the rest of the world, with percentages varying from 9 per cent in Sudan to 55 per cent in Rwanda. As in other regions, larger and exporting firms are more likely to train than those that are smaller and that cater only to the domestic market. In sub-Saharan Africa, 23 per cent of smaller firms provide training, compared with 41 per cent of medium-sized firms and 52 per cent of large firms. While data on very small firms and informal enterprises are limited, it seems that such firms generally offer little training; some reports suggest an exception in Burkina Faso and Togo. Similarly, 29 per cent of non-exporting companies train, compared to 41 per cent of exporting firms. The public sector, a major employer in the formal sector, does not appear to offer much in the way of on-the-job training. While the available data do provide some insights into the incidence of on-the-job training, they do not allow the quality or intensity of training to be assessed (Ngatia and Rigolini, 2019).

The prevalence of training is also linked to the extent to which firms see a lack of skills as the main obstacle to their enterprise. Firms are generally found to focus more on skills when other constraints to the business environment have been addressed. Using the most recent World Bank survey, Perotti (2019, p. 3) notes that the share of firms that rank lack of skills as the main obstacle to doing business is lower in Africa than in other regions: across Africa's economies, 2.7 per cent of firms rank skills as the main obstacle to doing business. This compares to 3.4 per cent in South Asia, 5.1 per cent in the Middle East and North Africa, 5.8 per cent in Europe and Central Asia, 10.2 per cent in East Asia and the Pacific, 10.4 per cent in the Latin America and Caribbean region, 13.5 per cent in Organisation for Economic Co-operation and Development (OECD) high-income economies and 13.7 per cent in non-OECD high-income economies. In addition, Perotti (2019) suggests that firms with higher labour productivity are more likely to provide training. Within Africa, firms in upper-middle-income countries see skills as more of a challenge. This could imply an increased desire for skills in the future (as other constraints are addressed) but could also explain why partnerships between TVET providers and employers are currently difficult to establish.

14 In 2015, over 9,000 youth were reported to have applied for fewer than 1,300 apprenticeship places (Franz, 2017).



3

**Findings from
the TVET
Mapping and
Social Partners
Surveys**

Findings from the TVET Mapping and Social Partners Surveys

This chapter presents the findings of the TVET Mapping survey and the Social Partners surveys. It starts by providing information on the surveys' scope and respondents, and on the validity of the survey results. It then presents the survey findings on four different dimensions of TVET: TVET policies, strategies and coordination; selected features of TVET delivery systems; employers' perceptions of TVET performance and enterprise training; and the involvement of social partners in TVET system design and implementation. The chapter concludes with a broad interpretation of the survey responses.

► 3.1 Surveys' scope, respondents and validity

For the purposes of this report, several surveys were conducted during the last months of 2020. The surveys aimed to collect up-to-date information on the state and performance of TVET systems in African countries, with a particular focus on their linkages with the productive sector and on employer engagement in TVET, with the ultimate aim of informing future reforms and interventions to improve TVET performance.

The TVET Mapping survey gathered information from representatives of national ministries of education and TVET and from TVET agencies, with the aim of reviewing the current state of TVET policies and practice. The survey collected data on topics such as TVET policies and governance; enrolments, access and equity; quality and relevance of provision; funding; TVET perception and attractiveness; infrastructure and equipment; and linkages of TVET provision with the productive sector.

Responses to the TVET Mapping survey were received from 11 countries. Out of the 16 countries that were approached to conduct the survey, responses were received from 11;¹⁵ namely, Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo (DRC), Egypt, Kenya, Mauritius, Namibia, Nigeria and the United Republic of Tanzania.¹⁶ Representatives of some of these countries responded partially to the survey; countries for which the majority of questions were answered were DRC, Egypt, Kenya, Namibia and the United Republic of Tanzania.

The Social Partners surveys were designed to obtain the views of key non-governmental stakeholders and understand their involvement in formal TVET design and delivery. Three distinct questionnaires were administered to employers' organizations, workers' organizations and individual employers. They covered topics such as the integration of skills in economic development policies; hiring patterns and how qualifications are used; the extent and nature of relationships with TVET providers in terms of providing training; and in-company training. Where relevant, respondents were asked to distinguish their answers for two groups of workers: technicians and associate professionals ("skilled workers") and plant and machine workers, service and sales workers and similar occupations ("semi-skilled workers").

¹⁵ Mostly, respondents were officials with responsibility for TVET within ministries of Education or ministries responsible for part of the education system, including TVET.

¹⁶ A twelfth country, Zambia, also submitted responses, which are not included in this chapter.



Stakeholders that provided sufficiently complete responses to the Social Partners surveys included 39 employers' associations, 21 workers' union federations, 22 workers' unions and 128 firms. The employers' associations came from 31 countries, i.e. more than half of all the African countries, and included four sectoral associations.¹⁷ The union federations came from 13 different countries, and the individual workers' unions that responded originated from six countries. Finally, the 128 individual enterprises originated from 26 different countries (table 3.1). Of these firms, 30 are active in manufacturing, 14 in agriculture, and the rest are scattered across other sectors. The sample included 39 large firms, 22 medium-sized firms, 38 small firms and 29 very small enterprises.¹⁸

Table 3.1 Respondents to the TVET Mapping and Social Partners surveys (by type and country)

TVET Mapping survey (ministries of education/TVET) Total: 11	Burundi, Cameroon, Chad, Côte d'Ivoire, Democratic Republic of the Congo (DRC), Egypt, Kenya, Mauritius, Namibia, Nigeria, United Republic of Tanzania
Employers' associations Total: 37	Algeria (1), Angola (1), Benin (1), Burkina Faso (1), Burundi (1), Cabo Verde (1), Côte d'Ivoire (1), Egypt (1), Equatorial Guinea (1), Eswatini (1), Ethiopia (2), Gambia (1), Ghana (1), Kenya (1), Lesotho (1), Liberia (1), Madagascar (1), Malawi (3), Mali (2), Nigeria (2), Rwanda (1), Sao Tome and Principe (1), Senegal (1), Seychelles (1), Sierra Leone (1), Somalia (1), South Africa (1), Togo (2), Uganda (1), United Republic of Tanzania (1), Zimbabwe (1)
Workers' union federations: Total: 21	Burundi (1), Cameroon (5), Ethiopia (1), Ghana (2), Lesotho (1), Malawi (2), Namibia (1), South Africa (1), South Sudan (2), Sudan (1), Uganda (1), Zambia (2), Zimbabwe (1)
Workers' unions Total: 22	Ghana (4), Lesotho (3), Liberia (1), Nigeria (5), South Africa (8), Zimbabwe (1)
Enterprises Total: 162	Benin (2), Burkina Faso (4), Burundi (5), Cabo Verde (6), Cameroon (2), Ivory Coast (3), Eswatini (1), Ethiopia (2), Gambia (1), Ghana (23), Guinea (2), Guinea-Bissau (1), Kenya (24), Liberia (7), Malawi (2), Mali (18), Mauritania (1), Mozambique (1), Niger (1), Nigeria (2), Rwanda (3), Senegal (4), South Africa (16), Sierra Leone (1), Togo (6), Tunisia (1), Uganda (14), United Republic of Tanzania (4), Zambia (2), Zimbabwe (3)

Despite the COVID-19 pandemic creating a challenging environment for conducting the surveys, the survey results reveal interesting patterns and perceptions of the respondents. As a consequence of the COVID-19 pandemic, surveys were administered online or using email without the benefit of face-to-face interactions between survey respondents and enumerators. The survey for TVET providers coincided with the outbreak of the pandemic and lockdown, which impacted the number of survey respondents. While surveys do not capture representative stakeholder samples, they provide interesting insights into the perceptions of various stakeholders on crucial aspects ranging from TVET policies to TVET delivery and performance, and serve as inputs for developing recommendations for improving TVET performance and identifying pertinent areas for further research.

¹⁷ This report analyses all the employers' associations together, given the small number of responses from sectoral organizations.

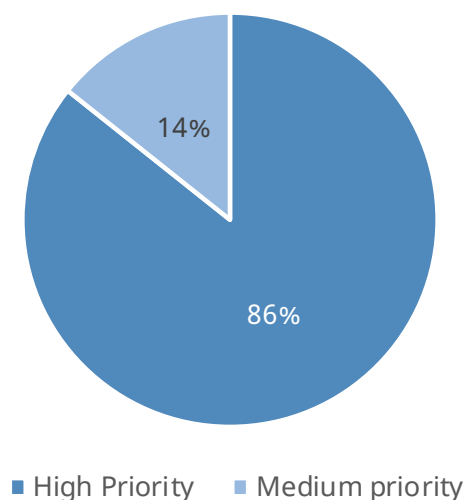
¹⁸ In this report, firms are considered very large if they employ over 250 workers; medium-sized if they employ between 51 and 249 staff; small if they employ between 11 and 50 workers, and very small if they have fewer than ten employees.

▶ 3.2 Survey findings

3.2.1 TVET policies, strategies and coordination

Most government representatives reported that TVET is a high priority in their countries' national development agenda. Of the respondents to this question from the TVET Mapping survey, 86 per cent indicated that TVET is a high national priority and 14 per cent reported it as a medium priority (figure 3.1). The prioritization is mostly substantiated by referring to strategic documents and development plans, such as Vision 2030 in both Egypt and Kenya and the National Development Programme 2018–2022 in DRC. In Namibia, TVET is reported to be expected to play “an important role in addressing socio-economic challenges, poverty alleviation, and the promotion of employment opportunities for youth”. It is less clear to what extent the declared intention to prioritize TVET translates into actual implementation. None of the countries that declared TVET to be a high priority responded to the question regarding the extent to which this prioritization has been translated into actual actions. The one country that reported that TVET is a medium-level priority, noted that TVET is a national priority “on paper” but not so much in practice.

Figure 3.1 Priority given to TVET in national development agenda, as reported by government representatives (share of respondents)

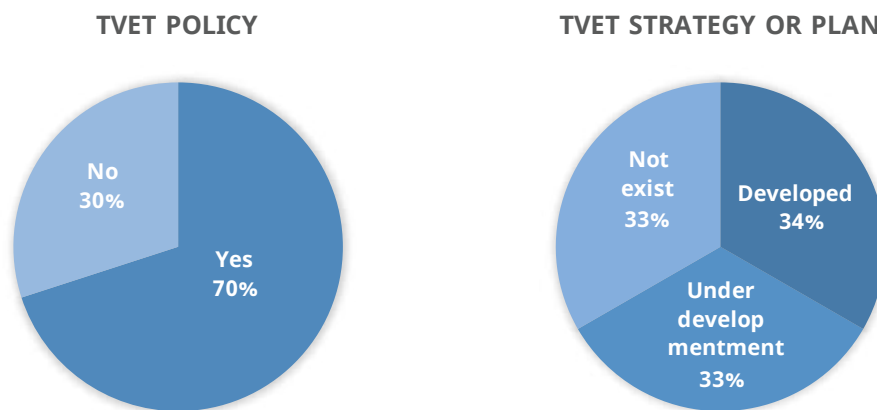


Source: TVET Mapping survey.

TVET coordination is mostly reported to be the responsibility of a ministry of education, or a ministry dedicated to TVET. Out of the eight countries that responded to the question in the TVET Mapping survey, four indicate that, at the national level, TVET is coordinated by the ministry of education. Another two respondents indicate that TVET is the responsibility of a ministry that is dedicated to TVET. Only one respondent reports that coordination is the responsibility of the ministry of labour (responsible for professional training, whereas the ministry of education is responsible for technical education). Another respondent observed the absence of a coordination mechanism, even though TVET is aggregated across line ministries, but noted that regulations were under development to improve TVET governance.

TVET policies are reported to be mostly integrated in broader education policies, and TVET policies appear to be in place more frequently than TVET strategies or plans. A TVET policy is reported to be in place in seven out of ten countries that responded to the related question in the TVET Mapping survey. In most cases, the TVET policy is reported to be integrated into a broader education policy, rather than being a stand-alone policy (one respondent) or integrated into another sectoral policy. The existence of a TVET strategy or plan is confirmed by only one third of respondents to this question. Another third of respondents indicate that a TVET strategy or plan is under development, and the remaining third indicate that none exists. Whether the implementation of TVET policies is more effective when they are accompanied by TVET strategies or plans could be a useful area for future analysis (figure 3.2).

Figure 3.2 Existence of TVET policies and strategies or plans



Source: TVET Mapping survey.

Among social partners, workers’ representatives appear to be more aware than employers’ representatives of whether human capital is considered in economic development policies. Of the 17 workers’ union federations that responded to the Social Partners surveys, all answered the question on whether industrial or sectoral policies include skill policies with either “yes” (ten union federations) or “no” (seven union federations). Of the employers’ associations, on the other hand, half of the 36 associations that responded indicated that they did not know.¹⁹ Of the remaining 18 employers’ associations, 11 reported that skill policies are incorporated into economic policies and seven reported that they are not.

3.2.2 Reported features of TVET delivery systems

The TVET Mapping survey collected information from representatives of ministries of education on a variety of topics related to the determinants of TVET performance. These included, among others, aspects of financing, including funding to promote equitable access to TVET; elements of TVET governance and inputs that influence the quality and relevance of TVET delivery; perceptions of the respondents themselves and the broader public on TVET performance; and, finally, responses on the impact of the COVID-19 pandemic. The main findings on each of these aspects are summarized in this section.

¹⁹ Two employers’ associations did not provide a response to this question.

*Financing***Public expenditures on TVET are reported to be mostly dedicated to formal education and training.**

All respondents to the question on the allocation of public expenditures for TVET in the TVET Mapping survey were able to provide indications of expenditures on formal TVET. Expenditures on non-formal and informal TVET, however, were indicated to be either non-existent or unknown. This finding corresponds with earlier observations that Governments tend to focus on formal TVET provision, despite the fact that most skills development in Africa takes place outside the formal system (see Chapter 2). At the same time, it should be recognized that public support for non-formal and informal training is regularly provided by ministries with mandates for social protection or employment, for example, and the expenditures of these ministries might not be well-known to the representatives of ministries of education who responded to the survey.

Even though concrete projections of the need for TVET infrastructure may not always exist, most of the TVET Mapping survey respondents expect that public TVET institutions will have insufficient funds to cover all their infrastructure needs in the coming period.

About half of the respondents answered a question about expectations concerning infrastructure funding for public TVET institutions for the period 2020–25. By and large, expectations are of underfunding for the vast majority of infrastructure expenditures, including for equipment and workshops, technological hardware and software, classrooms and hostels. One respondent provided clarification, explaining that, within a context of underfunding, the Government was emphasizing the provision of “training equipment, to ensure that the quality of training is continually improved”, also noting, among other things, that public-private partnership initiatives on expanding internet connectivity do exist but are progressing slowly. Another respondent emphasized that investments are expanding access to TVET rather than improving its quality.

Many countries have a skills levy, with varying funding mechanisms and aims. Nearly half of the of the TVET Mapping survey respondents have confirmed the existence of a skills levy.

The information provided on levy sources and applications reflects the variety of approaches that can be used to generate and use private sector funding for skills development. For example, while in one country the obligation to pay a levy is reported to be determined by a firm’s wage bill, in another country only firms who employ a minimum number of TVET-trained workers are obliged to pay. Several respondents indicate that the levy funds serve to support apprenticeships or other forms of work-based learning, while one country refers to a sector-specific levy fund (for the hospitality sector).

*Access and equity***The existence of scholarships, bursaries or loans for TVET students is reported by nearly half of the survey respondents.**

The relatively large number of respondents reporting the presence of financial support is somewhat surprising, considering the prevailing assumption that these types of funding mostly target higher education students. A review of the scope, nature, targeting and effectiveness of this assistance could be a worthwhile follow-up activity to pursue.

Among countries where TVET scholarships are reported to exist, various indicators are used to consider and select beneficiaries.

Four out of five respondents indicate that gender is a criterion that is considered. Indicators relating to qualifications/grades, age and disability are applied by three countries, and two respondents report that income is a consideration. Most countries consider various indicators for eligibility and selection, except in one country, where reportedly age is the only consideration. Interestingly, when asked which measures exist to promote access to TVET for excluded groups, none of the respondents mentions targeted financial support.²⁰

Quality and relevance

No teacher employment policy exists in most of the countries surveyed. A teacher employment policy would be expected to cover aspects such as staff recruitment, standards, deployment, remuneration, continuous professional development and accountability. Only one respondent confirmed that such a policy was in place, while one other respondent indicated that a policy was under development.

²⁰ In fact, none of the 11 respondents provided any information on measures to support excluded groups. The reasons for this discrepancy between answers to related questions are unclear.

In the countries that provided responses to the TVET Mapping survey, public TVET providers were not found to have financial autonomy. On the question of whether public providers have the autonomy to determine training fee levels, to engage in income-generating activities, to retain income and to make decisions on expenditure, respondents from all 11 participating countries returned a negative response. Other types of autonomy were reported to be more common: four out of 11 countries indicated that public TVET institutions have management autonomy (flexibility to decide on student enrolment, recruitment and dismissal of staff) and programme autonomy (control over what courses to offer and how to offer them).

The use of technology to deliver education and training is generally reported to be insufficient. None of the TVET Mapping survey respondents reported that the use of information and communications technology (ICT) and audio-visual facilities for training delivery was adequate.

Despite significant reported challenges related to, among other things, financing and elements of system governance, respondents from the ministries of education are relatively positive about the effectiveness of the TVET quality assurance system. The respondents to this question expressed satisfaction with the competencies acquired through TVET programmes, and most expressed satisfaction with elements such as the availability of practical training, practical training content, and the offer and content of training programmes. Three out of five respondents indicated that TVET institutions in their respective countries were either responsive or very responsive to changing skill demand resulting from emerging issues, such as the COVID-19 pandemic and climate change. These responses are somewhat surprising, considering both the substantial implementation challenges that the same respondents report, and contrary findings on the quality and relevance of TVET provision from existing research.

Representatives of ministries of education indicate that their relatively positive view of TVET performance may not be widely shared by the broader public. The respondents who provided their views on the effectiveness of TVET's quality assurance systems, also described how TVET is perceived by employers, parents and students. All respondents allude to a negative perception of TVET, for example due to its image as an option for underperforming students; the weak quality and relevance of training provision; or the lack of opportunities for TVET graduates. Most respondents do note recent improvements in perceptions of TVET among the broader public, as a result of reforms that have enhanced TVET performance.

Respondents to the TVET Mapping survey recognize that improving perceptions of TVET will require employment creation in addition to reforms to improve the quality and relevance of TVET. Their recommendations on improving the perceptions of TVET focused on improving the quality and relevance of TVET; for example, through strengthening private sector involvement and offering internationally recognized qualifications, and awareness campaigns. Several respondents also stressed the importance of smooth school-to-work transitions and the need to improve the business climate to increase the availability of private sector jobs and wages.

COVID-19 impact and response

TVET institutions applied various approaches to allow learning to continue during the COVID-19 pandemic. The approaches included a transition to remote and blended learning; a staggered reopening of face-to-face learning; and adherence to social distancing and the use of face masks.

The COVID-19 pandemic has spurred the development and roll-out of distance learning, according to the TVET Mapping survey. This included the acquisition of ICT infrastructure and the preparation of distance learning content for use on computers, mobile phones and television. The survey respondent from Kenya also highlighted the fact that TVET institutions contributed to mitigating the impact of the pandemic by, for example, producing protective and sanitary equipment and materials, such as hospital beds and soap.

Some respondents to the TVET Mapping survey expect that COVID-induced innovations will have lasting positive effects on TVET delivery, although the remote acquisition of practical skills remains a challenge. Increased reliance on distance learning is considered to be an opportunity to improve

access to TVET, as it can reduce costs, introduce flexibility and allow increased participation of learners whose ability to physically attend TVET institutions is constrained. Some respondents emphasized that TVET delivery is expected to be blended rather than fully remote, because of the difficulties in acquiring practical skills through remote learning, among other factors.

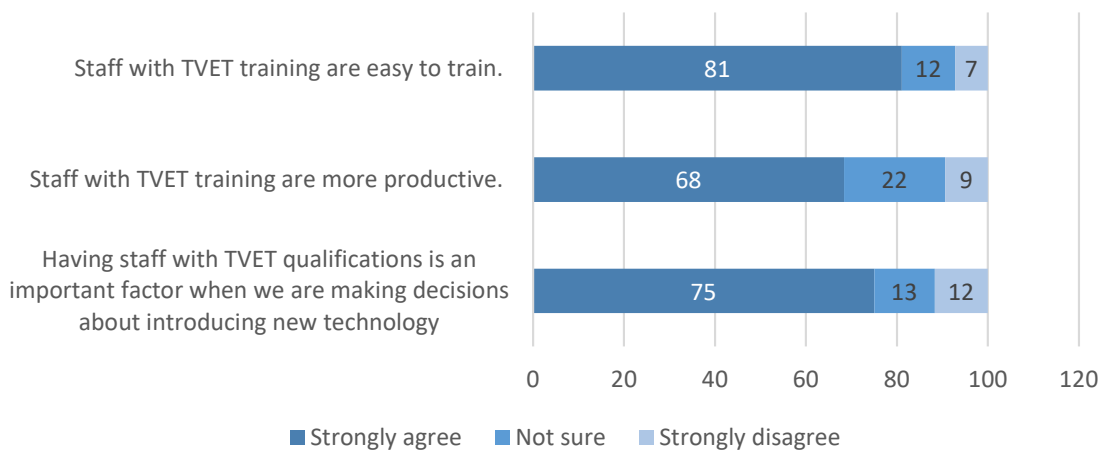
International cooperation and knowledge sharing

International cooperation and knowledge sharing takes place through a variety of international organizations and fora. UNESCO-UNEVOC, the African Union and regional cooperation bodies, such as the SADC and the East African Community (EAC), are mentioned as institutions through which international communication and coordination take place. Other institutions mentioned by the respondents to the TVET Mapping survey are the World Bank, the European Union and the European Training Foundation (ETF). World Skills International signed a Memorandum of Understanding with the African Union in 2019 to enhance skills development on the continent.

3.2.3 Employers: Perceptions of TVET and enterprise training

The companies participating in the Social Partners surveys expressed positive views about their perceptions and the importance of workers with TVET qualifications. For example, clear majorities of firms agreed that staff with TVET training are more productive and easier to train, and that the presence of staff with TVET qualifications is an important factor when making decisions about introducing new technology (figure 3.3). Larger firms were, on average, more positive about TVET-trained workers than respondents from firms with fewer employees. The companies' relatively positive responses to questions investigating their views on workers with TVET qualifications were surprising, given the substantial weaknesses of TVET systems that tend to be emphasized in literature and the often negative public image of TVET compared to similar levels of academic education.

Figure 3.3. Employers' perceptions of workers with TVET qualifications (percentage of employers)

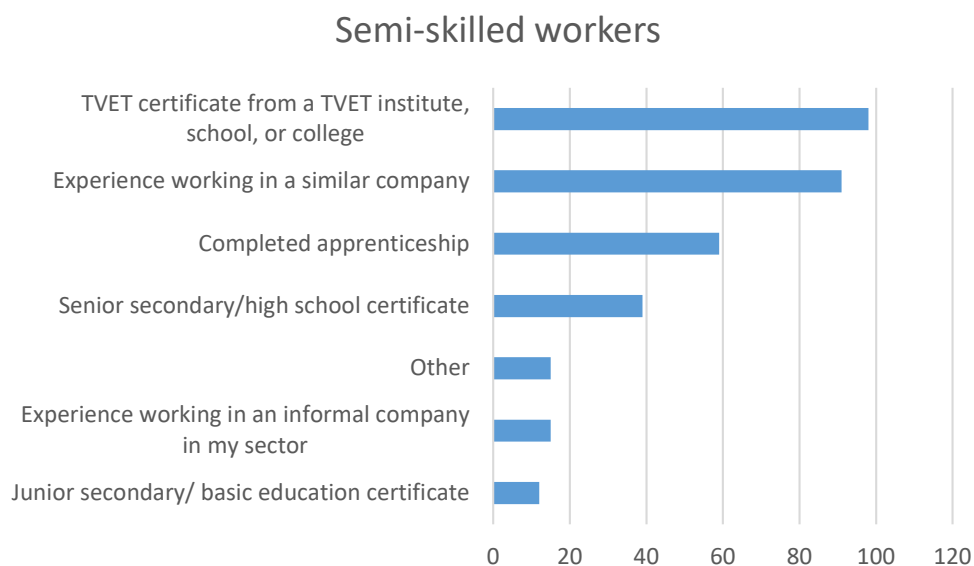


Source: Social Partners surveys – employers.



When recruiting both semi-skilled and skilled workers, employers indicate that they value TVET qualifications and work experience highly, which is also contrary to expectations. When asked to name up to three of the most important considerations when making hiring decisions, more than three quarters of employers mention a TVET certificate; this is slightly more than the share of employers who indicate that they value similar work experience, and considerably more than the share of employers reporting that they consider general education certificates or informal work experience as key recruitment factors. Also, for skilled workers, relatively few employers indicate that they value general secondary and even higher education more highly than a TVET certificate. The number of employers indicating that relevant work experience is a critical hiring consideration is slightly higher than the number who value TVET certificates (figure 3.4).²¹ The relatively high value that employers appear to attach to TVET over general education is surprising, as it is contrary to (generally anecdotal) findings that employers in Africa prefer general education over TVET.

Figure 3.4 Key considerations when hiring semi-skilled (top panel) and skilled (bottom panel) workers (number of company respondents)



²¹ Company respondents could include “university qualifications” as a hiring consideration for skilled workers; this category was not included as an option for the recruitment of semi-skilled workers



Source: Social Partners surveys – company respondents.

Company respondents emphasized the importance of the socio-emotional skills of their workers.

When given the opportunity to add comments regarding hiring decisions and perceptions of TVET-trained workers, various respondents emphasized non-technical skills and behaviours, such as discipline, maturity, integrity, honesty, versatility, the ability to learn and communication skills. Indeed, various respondents suggested that TVET providers should focus more on soft skills.

Informal on-the-job training is the dominant form of training according to employers, especially for semi-skilled workers. All social partners were asked about the dominant form of training that is provided for semi-skilled and skilled workers. Employers overwhelmingly respond that informal on-the-job training is the dominant form of training, which corresponds to global literature on modes of worker training. Other, more intentional and structured types of training are reported to be available for skilled workers slightly more often than for semi-skilled workers (figure 3.5). Training is provided slightly more often in collaboration with partners in the supply chain than with TVET providers, and employers indicate a slight preference for working with private rather than with public TVET providers. Formal internships are reported to occur more often than formal apprenticeships.

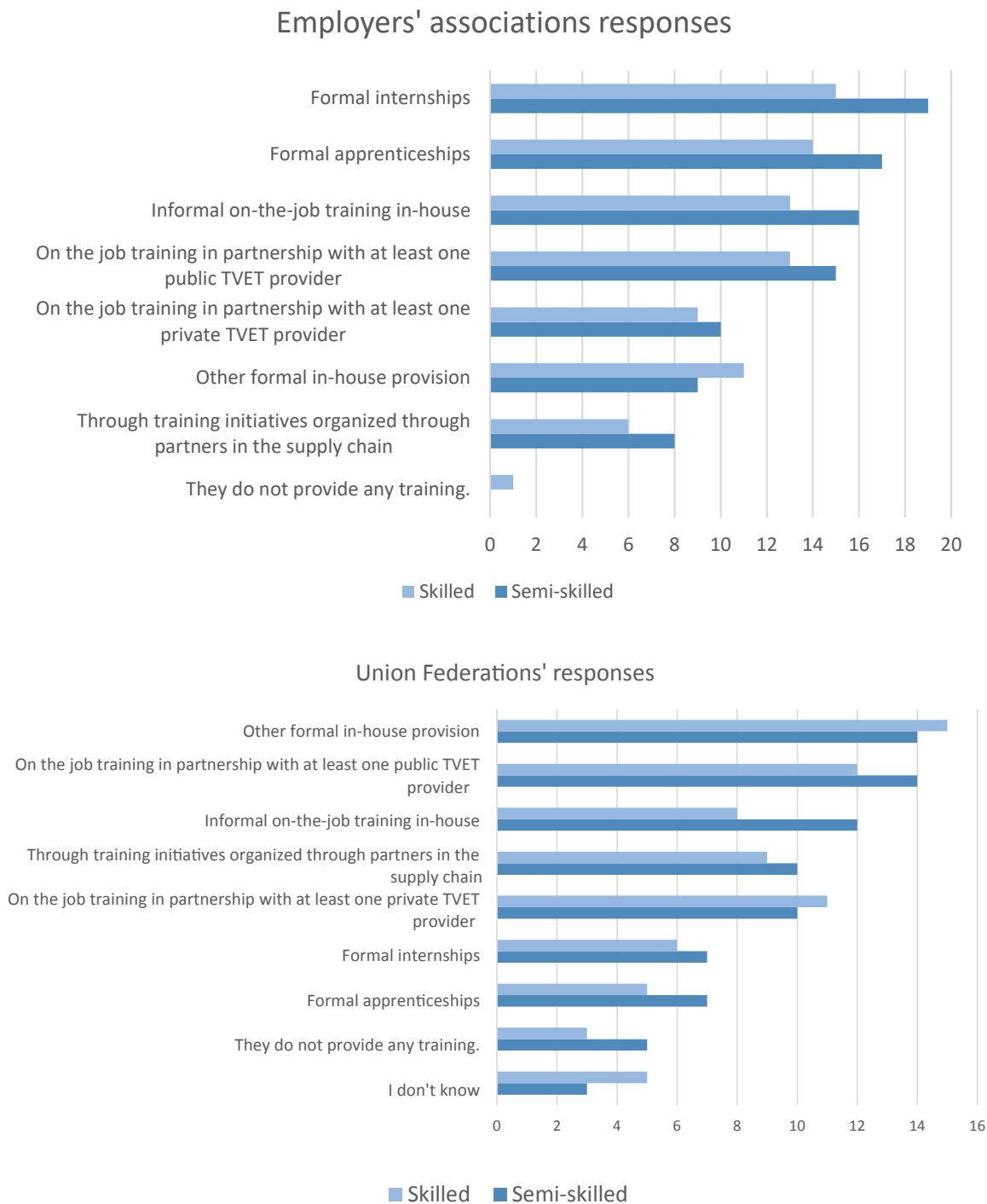
Figure 3.5 Main type of training provided by employers, according to employers (number of respondents)



Source: Social Partners surveys – employers.

The perceptions of employers’ associations and union federations differ from those of the employers themselves regarding the prevailing training approaches that employers apply. While the majority of both employers’ associations and union federations recognize the dominance of informal on-the-job-training, a larger number of respondents assumes that other types of training occur more frequently. In the case of employers’ associations, a higher number assumes that formal internships and apprenticeships occur more often. Among union federations, more respondents assume that “other types of formal in-house training” and on-the-job training in collaboration with public TVET providers happen more often than informal on-the-job training. In addition, whereas employers more often report collaboration with supply chain partners than with private or public TVET providers, the responses from employers’ associations and union federations reveal that they assume that collaboration takes place more frequently with (especially public) training providers (figure 3.6).

Figure 3.6 Dominant form of training provided by employers, according to employers' associations (top figurepanel) and union federations (bottom figurepanel) (number of respondents)



Source: Social Partners surveys - employers.



Among the firms that responded to the survey, there is no strong correlation between firm size and the incidence and type of training provision. It is generally supposed that larger firms provide more training, and certainly more formal training, than smaller firms. Among the firms that responded to the survey, however, minor differences aside, the reported trends for companies as a group also broadly hold for different sizes of companies. Similarly, when asked whether companies have designated training facilities for company-based training, nearly half of the firms (63 out of 129) confirm that this is the case, and responses do not differ substantially across firms of different sizes.

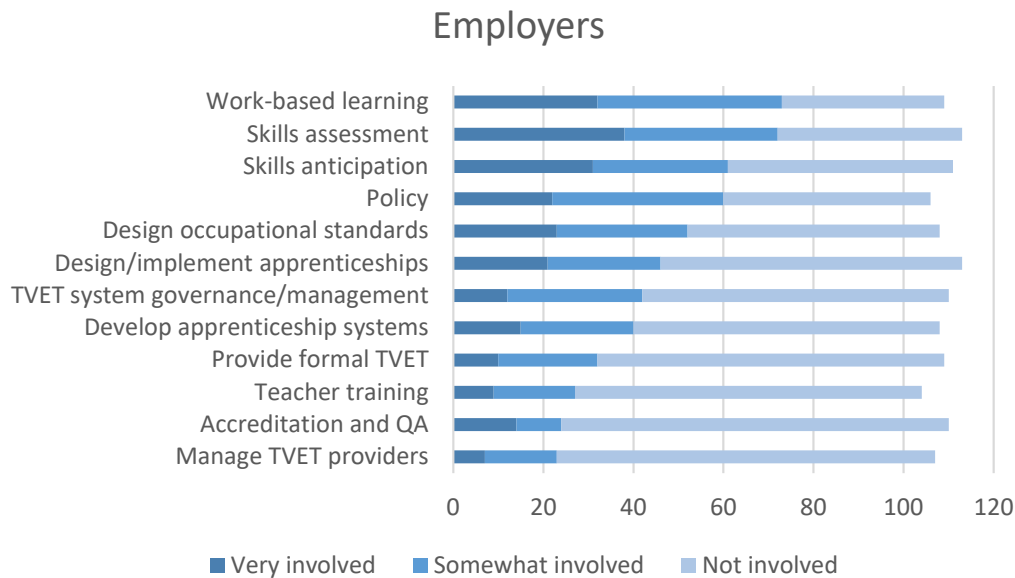
Apprenticeships are reported more often than the literature would suggest. While most companies do not report apprenticeships among the predominant types of training that they provide, a considerable majority of firms does report providing internships and apprenticeship to young people. Among all firms, 73 per cent report providing internships, and only a slightly smaller share (70 per cent) report providing apprenticeships (figure 3.5 above). The reported incidence of apprenticeships is substantially higher than would be expected considering research findings on the limited occurrence of formal apprenticeships in Africa. This could be due to selection bias among the survey respondents, or perhaps an interpretation of the term “apprenticeships” among survey respondents that is broader than commonly applied – both assumptions that would need to be verified through further analysis.

A relatively large share of firms reports training initiatives organized through their partners in the supply chain. Out of all firms, 34 per cent report that they train skilled workers through such initiatives, and a fairly similar share (31 per cent) indicate that they provide training to semi-skilled workers in this way (figure 3.5). When asked whether survey respondents themselves train workers from other firms in their supply chains, 43 per cent report training workers from formal companies within their supply chain and a similar share (44 per cent) of employers report training informal firms in their supply chains. This reported incidence appears high, especially for the informal economy; if this is indeed a common approach to skills development, further exploration of whether and how it can be meaningfully expanded or strengthened would be useful.

3.2.4 Social partner engagement in TVET system design and implementation

Employers report that their involvement in TVET mostly relates to providing work-based learning, skills assessment and skills anticipation, and contributing to policy development. All social partners were asked which areas of TVET they engage in. For employers, around two out of three respondents indicate being very or somewhat involved in work-based learning and skills assessment, and over half indicate engagement in skills anticipation and policy development. Areas of low engagement (less than 30 per cent of employers) include the management of formal TVET providers, accreditation and quality assurance, teacher training and the provision of formal TVET (figure 3.7).

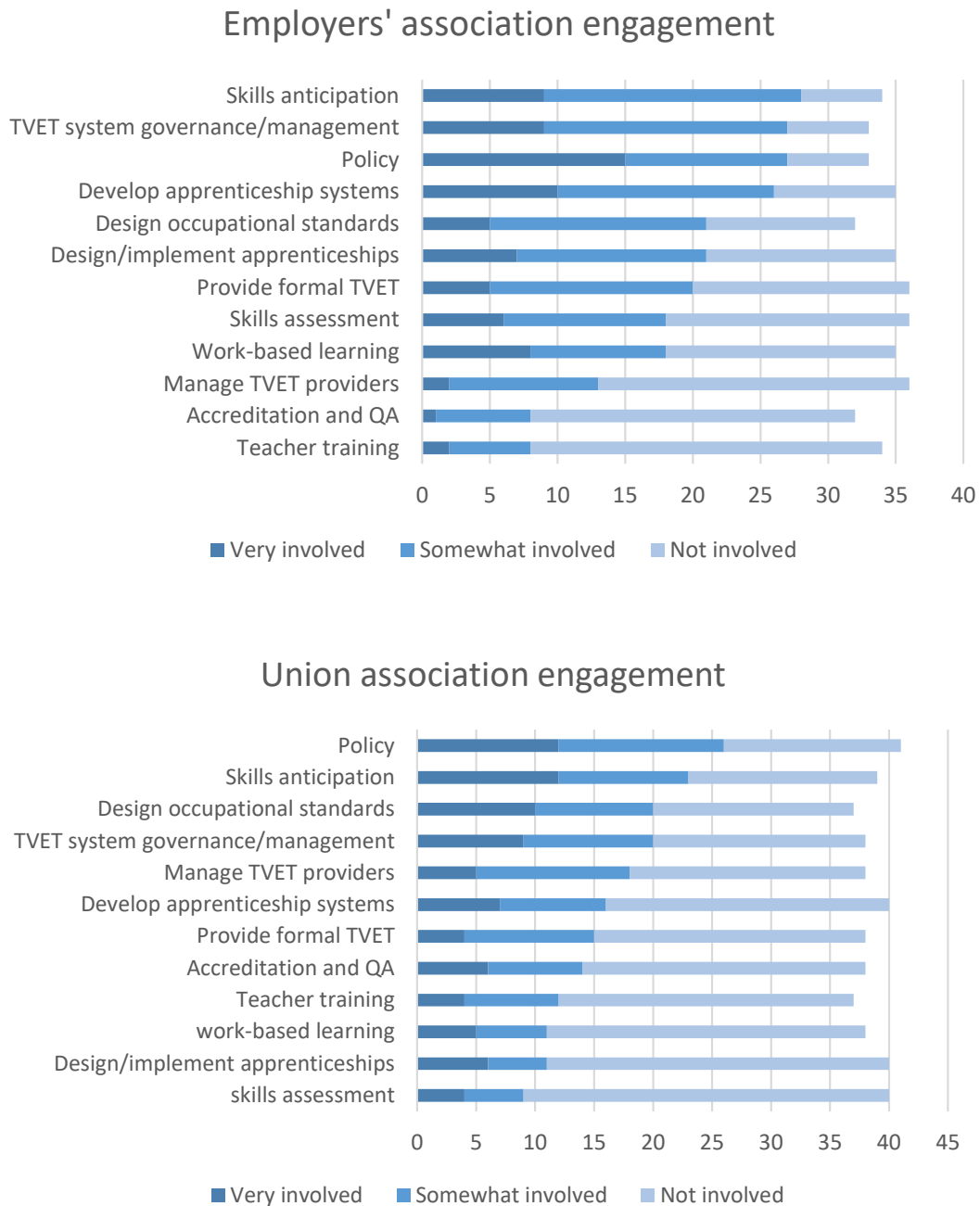
Figure 3.7 Employer engagement in TVET (number of respondents)



Source: Social Partners surveys – employers.

When comparing responses from employer and employee representatives that participated in the survey, employers' associations report a stronger engagement in TVET than union federations. In most of the dimensions of TVET on which survey respondents could indicate their engagement, the share of employers' associations reporting that they are very or somewhat involved exceeds the share of union federations reporting on the same issues. In nine out of 12 dimensions, more than half of the employers' associations report that they are engaged. The activities in which employers' associations most often report their engagement are skills anticipation, TVET system management and policy; in these activities, more than four out of five employers' associations report that they are engaged. For most dimensions, the share of union federations confirming their engagement is less than 50 per cent. The three areas in which the proportion of respondents indicating their involvement is larger among union federations than among employers' associations are the management of TVET providers, teacher training and accreditation and quality assurance (figure 3.8).

Figure 3.8 Engagement of employers' associations (top panel) and union federations (bottom panel) in TVET (number of respondents)

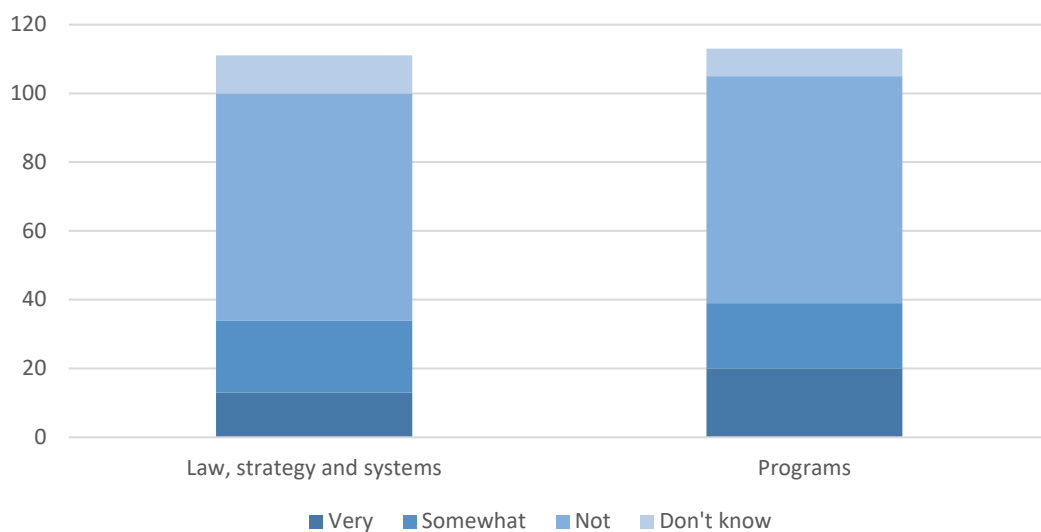


Source: Social Partners surveys – employers' associations and union federations.



When asked about apprenticeships as a separate issue, about one in three employers reported engagement in apprenticeship systems and programmes. The percentage of firms indicating their engagement in implementing apprenticeship programmes (35 per cent) is slightly higher than the percentage of firms reporting involvement in the design of apprenticeship systems (31 per cent), as shown in figure 3.9. Given that the incidence of (formal) apprenticeships in African countries is generally low, the share of firms reporting engagement in apprenticeship programmes is high; this may be partly due to selection bias of survey respondents, meaning that those employers who decided to respond to the survey may be more likely to be strongly engaged in TVET, including through the provision of apprenticeships. On the other hand, when asked exclusively about their engagement in apprenticeships programmes, the share of employers confirming such engagement is substantially lower than the share that indicate providing apprenticeships as part of the survey question that allowed them to specify various types of training provision (see section 3.2.3). This points to potential internal inconsistencies that would require follow-up engagement with the survey respondents to explain.

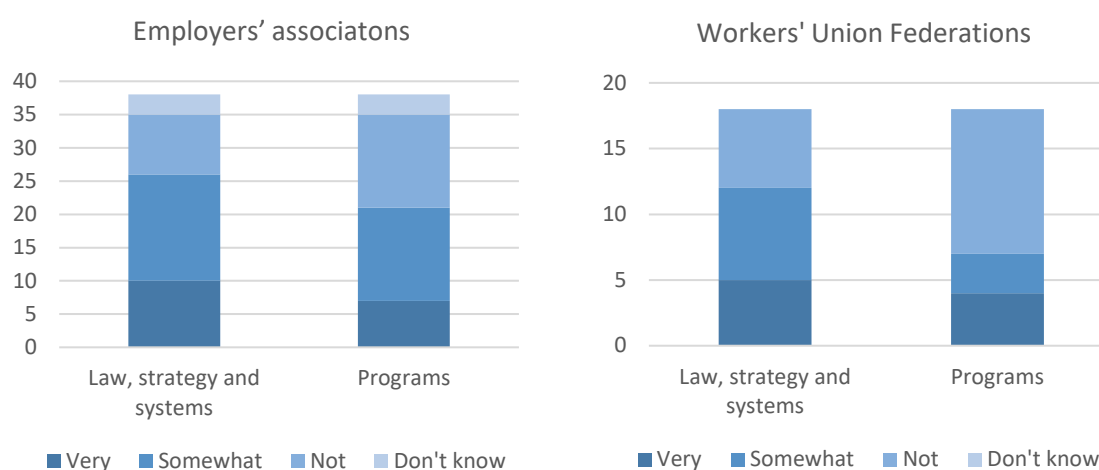
Figure 3.9 Engagement of companies in apprenticeship systems and programmes (number of respondents)



Source: Social Partners surveys – employers’ associations and union federations.

Employers' associations and union federations report being engaged in apprenticeships more often than individual firms. Employers' associations frequently report being engaged both in developing apprenticeship systems (68 per cent) and in the design and implementation of apprenticeship programmes (55 per cent). Union federations more often report engagement in apprenticeship systems (67 per cent), and more rarely in apprenticeship programmes (39 per cent) (figure 3.10) The fact that representative bodies appear to be more often engaged in apprenticeships than individual firms may be a sign that the dialogue on this topic still occurs mostly at a higher level, and that the essential effective participation of firms in many cases still needs to materialize.

Figure 3.10. Engagement of employers' associations and union federations in apprenticeship systems and programmes (number of respondents)



Source: Social Partners surveys – employers' associations and union federations.

There are some areas where the reported involvement of the social partners appears comparatively limited, such as teacher training, accreditation and quality assurance, and the management of TVET providers. While the reported involvement in TVET system design and implementation varies between social partners, areas such as contributing to skills assessment and policies are among the most frequently reported activities of employers, employers' associations and union federations alike. There are also some activities in which the engagement of all types of social partners appears to be relatively low. Teacher training is among the activities that social partners least frequently report being engaged in; for example, just over one in four employers reported engagement in teacher training, despite the fact that employers are considered to be well placed to upskill teachers to familiarize them with up-to-date equipment, technologies and processes. Employers and employers' associations also report relatively rare engagement in accreditation and quality assurance activities, and in managing TVET providers, even though it is widely assumed that their private sector perspectives and knowledge of skill needs could provide valuable contributions to ensuring the demand-responsiveness of training provision. For the union federations among the survey respondents, the picture is slightly different; almost half of all respondents indicate that they are involved in managing TVET providers, and around one in three reports engagement in accreditation and quality assurance, and in teacher training.

The mixed picture of TVET engagement that emerged from the Social Partners surveys, also resonates in the responses of government officials to the TVET Mapping survey. Some 38 per cent of respondents to the TVET Mapping survey report that social partners are actively engaged, and the remaining 62 per cent of respondents state that social partners are somewhat engaged. When asked to

indicate the level and nature of social partner engagement, their involvement is most often reported to be at the sector level (as opposed to a regional, national or municipal level), and focused on providing work placements and, less often, curriculum design or the management of TVET providers.

The TVET Mapping survey also revealed that concrete and effective policies and incentives to promote stakeholder coordination may be missing, especially at the institutional level. When asked whether a policy or strategy exists to promote partnerships of TVET stakeholders, only 62 per cent of the respondents to the TVET Mapping survey responded positively. Even fewer respondents are able to confirm the existence of regulations to incentivize TVET institutions to interact with the world of work; for example, through requirements for teacher qualifications or the involvement of the private sector in governance, defining the training offer, or assessment or learning outcomes.

▶ 3.3 Interpretation of survey responses

The survey data offer various interesting insights for consideration and, potentially, further exploration. In general, the survey responses correspond to findings from the literature, while in some cases they appear to present a different perspective compared to other common assumptions about TVET systems and their performance. As emphasized earlier, survey findings need to be interpreted with some caution due to small sample sizes (see section 3.1). A careful interpretation of some results is also warranted because of the nature of the respondents. For example, the unexpectedly large share of employers indicating their involvement in apprenticeship programmes might have occurred because of variations in the understanding of what constitutes an apprenticeship. In some places, even short-term work attachments are referred to as apprenticeships. Or, while the TVET Mapping survey confirms findings from the literature that public expenditures on TVET are mostly directed towards formal TVET provision, these findings might be skewed because responses were mainly provided by officials from ministries of education, who do not always have a clear understanding of the (often informal) training that is financed by, for example, ministries of labour or social protection. Notwithstanding such challenges, the survey results provide interesting observations that contribute to filling the knowledge gap on social partner engagement in TVET in Africa, and suggest areas for future research, some of which are highlighted below.

Across all surveys, respondents generally expressed more positive views about TVET effectiveness and performance than would be expected, based both on existing literature and on weaknesses in TVET delivery systems that also emerged from the survey findings. A majority of employers indicated that they perceive staff with TVET training as more productive and consider the presence of staff with TVET qualifications to be an important factor when deciding about whether to introduce new technologies into the workplace. Similarly, government officials generally expressed satisfaction with the competencies acquired through TVET. These relatively positive perceptions run counter to research findings, which generally rate TVET performance as less satisfactory (see Chapter 2). They are also hard to align with responses to various other survey questions, which appear to reveal that various elements that are considered important contributors to TVET system performance are insufficiently present. For example, respondents to the TVET Mapping survey point to challenges related to infrastructure, teacher training policies, autonomy of TVET institutions and the use of technology, and such challenges tend to be associated with weaker TVET performance. Clarity on these aspects could be gained through conducting more extensive and in-depth stakeholder consultations in the future. Another possibility to consider is that research findings on the weak performance of TVET may (also) need to be interpreted with caution. This is not to claim that TVET performance across Africa is strong – or even adequate – and does not require improvements; on the contrary, it is clear that significant challenges and weaknesses do exist. However, considering the notably limited available data on TVET performance in Africa (and, indeed, globally), there



is a possibility that researchers' assumptions and observations on the weak performance of TVET systems are sometimes informed by perceptions in addition to the available evidence.

Survey results on the engagement of social partners in TVET point to areas where different partners are more, or less, involved. Areas in which employers who participated in the survey report a greater degree of engagement include work-based learning, skills assessment and anticipation, and contributing to policy development. Among representative organizations, participating employers' associations appear to engage in different aspects of TVET somewhat more frequently than union federations.

Employers' associations and union federations report engagement in apprenticeships more often than individual firms, possibly indicating that activities related to apprenticeships are still more at the level of dialogue than of actual implementation (which would correspond to literature findings on the limited incidence of formal apprenticeships in Africa). Areas on which social partners report relatively limited involvement include teacher training, accreditation and quality assurance, and the management of TVET providers. The TVET Mapping survey responses appear to imply that, while policies to promote partnerships of TVET stakeholders might exist, these might not necessarily translate into concrete incentives of TVET institutions to interact with the world of work.

Related to skills development that takes place in firms, representative organizations might underestimate the importance of informal on-the-job training. While employers report that informal on-the-job training is the most dominant form of training that they provide, representative organizations assume that other types of training prevail, such as formal internships and apprenticeships (employers' associations) or formal in-house training, whether or not in collaboration with TVET institutions (union federations). Assuming that the employers among the respondents are more aware of the dominant type of training offered in firms than the representatives of employers' associations and union federations, this finding would point to a lack of awareness among representative organizations of the nature of the skills development that takes place within firms, including an underestimation of the incidence or importance of informal on-the-job training.



4

Conclusions and recommendations

Conclusions and recommendations

► 4.1 Conclusions

TVET in Africa can contribute to improving individuals' employment outcomes, the economy's productivity, and society's response to ongoing megatrends and the changing world of work. Through its role in aligning skills supply with demand, TVET can contribute significantly to promoting employment and growth in Africa. TVET can also help labour markets and societies adapt and respond to ongoing megatrends, such as technological advancements, globalization, demographic shifts and climate change, by responding quickly and adequately to the changing skill needs resulting from these developments (ILO, 2021a).

TVET can only play this role when Africa unlocks the demand for technical skills. TVET is not a magic bullet. On its own, it cannot solve the important challenges of youth unemployment, inequity and weak economic growth that many countries in Africa face. Addressing these challenges will require broader reforms that catalyse structural and equitable economic transformation and that, crucially, spur the creation of decent employment for which TVET can provide the skills.

Africa's TVET systems themselves suffer from weaknesses that limit their performance. Lagging economic transformation is not the only reason why TVET in Africa is not realizing its full potential. While pockets of excellence certainly exist, TVET systems themselves are not well-gearred to maximize their performance. By and large, Governments do recognize the importance of TVET and have formulated higher-level objectives, regularly accompanied by strategic documents and, sometimes, policy frameworks. However, implementation is uneven at best. Although the scope and nature of challenges differ between countries, there are important common weaknesses across countries on the continent. These include fragmented governance structures, weak stakeholder capacity and collaboration, limited funding and ineffective expenditure mechanisms. Consequently, formal TVET systems cater to only a small share of potential learners, and struggle to provide the majority of them with the skills that are most needed on the labour market. At the same time, policymakers tend to devote relatively little attention to informal training, including traditional apprenticeships, even though this is the most widespread form of work-focused skills development on the continent.

Social partners tend to be engaged in TVET, but not as intensively and effectively as they need to be. The engagement of employers and workers, either directly or via representative bodies, is crucial to ensure the relevance, quality and scope of training programmes that are necessary to minimize skills mismatch. In Africa, social partners are found to be involved in the development of national policy and, to a lesser extent, TVET governance, skills anticipation, the development of occupational standards, qualifications, curricula and assessments, and training provision. However, many challenges remain, and in many areas of potential engagement social partners are either absent or insufficiently effective. For example, few firms offer formal apprenticeships or contribute to the management of TVET institutions and, while sectoral skills bodies exist in various countries, their effectiveness and the extent to which they empower the productive sector are unclear.



While recognizing TVET's challenges, company respondents to the TVET Mapping survey viewed TVET positively. Companies that responded to the survey indicated that TVET qualifications are a relatively significant consideration in hiring decisions. They also indicated that staff with TVET qualifications are more productive and easier to train, and that TVET qualifications matter when introducing new technology into the workplace. This could reflect the nature of the companies which self-selected into answering the survey. Nonetheless, and even though survey responses also included critical comments on the relevance of TVET, this finding offers some more hopeful perspectives on employers' perceptions of TVET than the literature review would suggest.

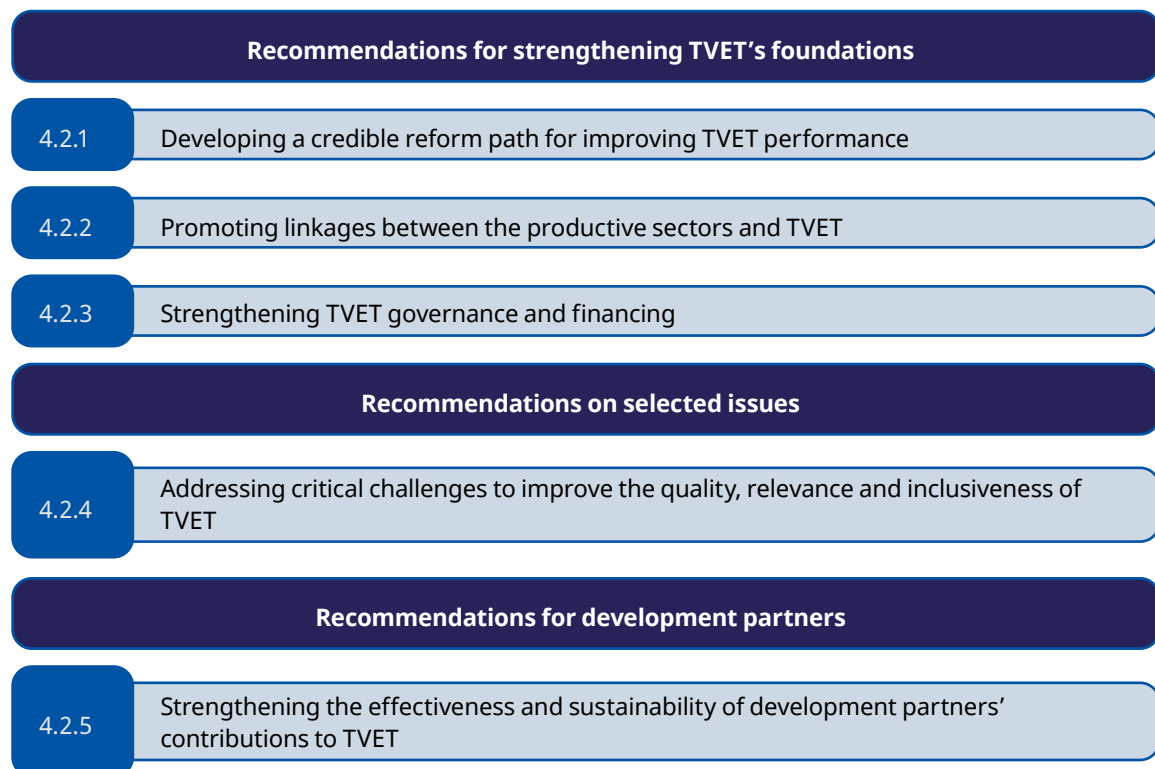
Knowledge gaps complicate the identification and implementation of TVET reforms. There are knowledge limitations regarding the characteristics of TVET systems, their outputs and outcomes, their main constraints and the best approaches to structurally improve TVET performance. While information gaps in these areas, especially on the impact and efficiency of reforms, are common around the world, they are particularly prevalent in low- and middle-income countries, which make up the vast majority of the countries in Africa. Countries in Africa tend to share broad common features, such as high levels of informality, limited demand for high- and medium-level skills, weak public and private sector capacity, relatively weak organization of social partners, no strong culture of public-private partnerships, relatively low educational attainment of the population, a small formal TVET sector and limited numbers of formal apprenticeships, and a strong reliance on informal training. This means that Africa's constraints and solutions for TVET performance will be different from those in higher-income countries, on which more research tends to be available. Africa therefore needs to develop effective solutions for strengthening TVET performance in a context where the evidence base is still relatively weak. Recommendations on how to approach this task are proposed in the following section. This chapter then concludes by suggesting priority areas for future research.

► 4.2 Recommendations: Strengthening TVET systems in Africa

This section presents recommendations for improving TVET, based on Africa-specific knowledge combined with relevant global findings. The recommendations are based on the literature review and survey findings presented in the preceding chapters of this report. In addition, given the aforementioned scarcity of evidence-based knowledge focusing on Africa, recommendations have been derived from relevant global research and recommendations on TVET, principally from strategic documentation from international organizations, such as the ILO, OECD, UNESCO and the World Bank, particularly those focusing on countries with circumstances similar to those in Africa.

The recommendations cover key determinants of TVET performance, including strengthening the linkages between TVET and the productive sectors. This section starts with recommendations for strengthening three fundamental determinants of TVET performance: recommendations for developing a credible reform path for improved TVET performance (4.2.1); for promoting linkages between TVET and the productive sectors (4.2.2); and for strengthening TVET’s governance and financing mechanisms (4.2.3). This section then proceeds to recommendations for addressing selected key challenges that were identified in the previous chapters as constraints to TVET quality, relevance, access and equity, such as promoting quality apprenticeships, reducing gender inequality and exploiting technological opportunities (4.2.4), and concludes with recommendations for improving the effectiveness and sustainability of development partners’ support to TVET (4.2.5). (See figure 4.1.)

Figure 4.1 Five areas of recommendations for strengthening TVET systems in Africa



4.2.1 Developing a credible reform path for improving TVET performance

Recommendations:

- ▶ Make sure that TVET strategies are evidence-based and owned by all key stakeholders.
- ▶ Align TVET vision and strategy with socio-economic context, the broader national development agenda, sectoral policies and overall education system reforms.
- ▶ Consider implementation capacity when developing TVET strategies and reforms.
- ▶ Balance aiming for short-term results with efforts to achieve structural system reforms.

- Plan an appropriate combination of infrastructure investments and structural reforms.
- Experiment, evaluate and then expand the most impactful approaches.

Multifaceted and ambitious objectives for TVET, combined with a challenging external environment and limitations in implementation capacity, make it complicated to develop a sound and realistic strategy for strengthening TVET performance. In most countries in Africa, there are high expectations about the role of TVET in promoting employment, especially that of vulnerable youth. In many countries, these aims are combined with expectations about TVET as a catalyst of the growth of high value-added economic sectors. For TVET systems in Africa to achieve these objectives, they need to improve the quality, relevance and inclusiveness of training provision, so that TVET more effectively and efficiently provides all learners with the competencies that are demanded on the labour market, which graduates need to build productive careers. In addition, TVET systems need to expand their capacity and ensure a human-centric approach and equitable access, meaning that access to TVET provision is based on learners' preferences and abilities, and not constrained by factors such as household income, gender or location. In most countries, the achievement of these multidimensional objectives is complicated by factors that are external to the TVET system, such as the weak enabling environment for job creation and limited foundational or core skills of learners when they enrol in TVET, and by limitations in funding and human resources that constrain the implementation capacity of TVET policies and reforms.

While learning from international experience, each country should determine their own path towards improving TVET performance, based on needs, preferences and ability. There is broad consensus on the key principles that effective TVET systems should adhere to, such as the need to engage social partners to ensure the demand-responsiveness of training; the importance of both foundational and technical skills of TVET graduates; the importance of practical elements in training delivery; and the value of well-qualified and motivated instructors. Box 4.1, for example, summarizes guiding principles for inclusive, responsive and resilient skills and lifelong learning systems, as formulated by the 2021 International Labour Conference.

Box 4.1 Guiding principles for skills and lifelong learning

During the 2021 International Labour Conference, guiding principles for inclusive, responsive and resilient skills and lifelong learning systems were adopted. They called for Governments and social partners to prioritize skills development and lifelong learning through adequately resourced policies and strategies to realize inclusive and equitable quality education and lifelong learning opportunities for all; accelerate sustainable development; drive technological advancement and innovation; and promote industrial and structural transformation that adds value in growth sectors, supports enterprises of all sizes and promotes a just transition. The guiding principles identified relate to the following building blocks and dimensions of TVET:

- comprehensive and well-coordinated policies and strategies;
- effective governance that facilitates and benefits from social dialogue and stakeholder coordination;
- equitable and effective access to skill development opportunities that reduce skill mismatches;
- innovative, transparent, equitable and sustainable financing mechanisms;
- comprehensive and effective mechanisms for identifying and anticipating skill and learning needs;
- inclusive, gender-responsive, flexible and innovative learning options;

- ▶ quality apprenticeships and work-based learning;
- ▶ effective partnerships between Governments, workers, employers and training providers on training provision;
- ▶ emphasis on core skills, including social and emotional, cognitive, digital, sustainability and STEM skills;
- ▶ tripartite social dialogue in developing skill standards, qualifications and curricula;
- ▶ strong and effective public and private education and training institutions;
- ▶ robust systems for the recognition of prior learning;
- ▶ effective quality assurance systems;
- ▶ outreach activities and community training for informal workers and rural residents;
- ▶ targeted skill development and lifelong learning strategies for the informal economy;
- ▶ effective access to skills and lifelong learning for all workers in insecure forms of work;
- ▶ workforce development and decent work opportunities for teachers and trainers;
- ▶ coordinated lifelong career counselling;
- ▶ comprehensive digitalization strategies;
- ▶ integration of skill development with social protection and active labour market policies;
- ▶ strengthened capacity of social partners at all levels.

Source: ILO (2021a).

International good practices exist in all these areas, especially in high-income countries. What does not exist, especially for countries that have a lot of work to do on all these areas, is unambiguous knowledge of how all these principles can best be adhered to and prioritized (box 4.2).

Box 4.2

Aggarwal and Gasskov (2013), in the publication *Comparative Analysis of National Skills Development Policies: A Guide for Policy Makers*, state that policymakers usually claim to develop good policies and put the blame for any failure of the policy on poor implementation. The paper, therefore, discusses the issues concerning “good” policy and “poor” implementation. It argues that a good policy of a given country is not one that is based on “policy borrowing” from other countries. It stresses that “poor implementation” is not the only factor responsible for policy failure; three factors, “unsound policy” (even an “ideal” policy can be an unsound or bad policy), “changes in environment” or poor implementation, or a combination of the three factors, can also cause policy failure.

The paper analysed the fact that national skills development policies reviewed during the research have not paid sufficient attention to implementation issues and risk factors. For example, 33 per cent of the policies reviewed do not even have information about how the policy will be implemented.

Source: Aggarwal and Gasskov (2013)

It is therefore up to stakeholders to develop and implement a feasible reform agenda, the content of which will certainly differ according to country depending on, among other factors, their economic context, national development objectives, cultural preferences and capacity. For example, while in some instances a national top-down approach may be effective, other cases might benefit more from a sectoral approach, and, as highlighted in Chapter 2, while in some countries TVET is best directed mainly towards supporting high-value-added priority sectors, in others it might be mostly geared towards improving the livelihoods of the poorest population groups. While there are therefore no clear-cut, universally applicable roadmaps to improving TVET performance, there are several recommendations on how to develop an appropriate and well-contextualized roadmap of reforms.

Recommendation: Base TVET strategies on an appropriate diagnosis of challenges and potentials and consensus among key stakeholders. Strategies aimed at improving TVET performance will be most effective if they are based on a sound understanding among all key stakeholders of TVET's objectives, of its strengths and weaknesses, and of the most appropriate approaches to improve its performance.

Recommendation: Align the vision and strategy for TVET with socio-economic context, the broader national reform agenda and improvements of the overall education system. Overall, TVET vision and strategy should be aligned with national context and development goals, and coordinated with other strategies in the realm of economic development, education, poverty reduction and social protection (ILO, 2021a). Ideally, TVET strategies accompany credible broader efforts to improve the investment climate and labour market outcomes, to increase the potential pay-offs of TVET reforms. They should also consider the overall performance and envisaged reforms of the education system, not least because these determine the level of foundational or core skills of TVET entrants. If economic and broader education system reforms are not successfully implemented, then the benefits of TVET will be limited, at best. Consistently viewing TVET reforms as part of broader efforts to achieve national development goals may also help to ensure consistency and coherence of TVET interventions, and avoid the disjointed and ad hoc investments and reforms that are sometimes observed. Box 4.3 provides an example of contextualized support provided by a partnership between the ILO, the International Telecommunication Union (ITU) and the AfDB, considering emerging opportunities and skill needs of the digital economy.

Box 4.3 ILO, ITU and AfDB collaboration on digital skills for youth

The ILO and ITU, in support of the AU and under the umbrella of the Global Initiative on Decent Jobs for Youth, implemented a programme to empower African youth, ensuring that they benefit from new opportunities in the digital economy, which addresses the following issues.

- **Labour demand – job creation and entrepreneurship opportunities in the digital economy:** The programme will promote pro-employment policies and collaborate with Governments, workers and employers in the implementation of “first digital jobs” interventions, linking young entrepreneurs to value chains in urban and rural settings, strengthening job quality in the informal economy and facilitating the transition of youth into the formal economy.
- **Labour supply – investments in youth digital skills:** The programme will support Governments in developing policies that strengthen the supply of demand-driven skills in the digital economy. In addition, the programme will improve the quality and focus of skill development interventions in terms of curricula development, teaching and training settings. It will also design and deliver digital skills development interventions that target different youth groups through partnerships.
- **Labour intermediation – preparing public and private employment services for the digital era:** The programme will address the skills mismatches and information asymmetries that exist in many countries. A key focus will be enabling employment services to adapt to and pilot new technologies and digital platforms, to understand what the changing needs are for specific skills and identify opportunities for youth in the digital economy.

Recommendation: Consider implementation capacity when developing TVET strategies and reforms.

TVET strategies in Africa are often overly ambitious, causing scarce resources and capacity to be spread too thinly to allow results to be achieved (ILO et al., forthcoming; Arias et al., 2019). Contextualization, therefore, also means prioritization. When developing a reform agenda, this implies focusing on those reforms that are expected to have the greatest impact and that can be implemented given a realistic assessment of available human and financial resources. Prioritization also means discontinuing activities when the resources that they require can be more effectively applied elsewhere. This includes, for example, phasing out programmes in occupational fields when labour market analysis reveals that they are no longer in demand (ILO et al., forthcoming; Arias et al., 2019). It can also imply reconsidering the prioritization of initiatives that might have benefits if they were to be adequately implemented, but for which implementation capacity may still be underdeveloped, such as regional or national qualifications frameworks (as discussed in Chapter 2). At the same time, TVET strategies and reform processes should incorporate goals and activities to strengthen the capacities of government institutions, social partners, training providers and other relevant stakeholders in the most relevant aspects of the development, implementation and evaluation of skills policies, strategies and programmes (ILO, forthcoming (c)).

Recommendation: Strike an appropriate balance between achieving short-term results and sustainable system improvements.

Successful reforms that structurally improve TVET systems' performance are possible, but take time to lead to visible results and require continued efforts to sustain them (ILO et al., forthcoming). At the same time, both individuals and enterprises face immediate needs that should be addressed. Interventions that focus on immediate skill needs, however, may differ quite significantly from those that structurally alleviate skill constraints. For example, identifying funds for a one-time investment in training centre equipment is completely different from developing and maintaining a funding mechanism that ensures sustainable availability of funding for TVET infrastructure. Similarly, investing in the one-time updating of a curriculum is a different process from building sustainable institutional structures and capacity to continuously update curricula whenever there is a need. TVET strategies should, therefore, strike an appropriate balance between achieving short-term results and efforts to structurally strengthen TVET systems. Experience shows that short-term results tend to be over-emphasized, including by development partners who support TVET, and that policymakers and other stakeholders might do well to consider whether a stronger focus on sustainable system improvement is warranted.

Recommendation: Plan an appropriate combination of infrastructure investments and structural reforms. TVET infrastructure tends to be limited and outdated, and significant resources are needed to bring it up to par. However, infrastructure investments alone are not sufficient to address the substantial systemic weakness of TVET systems, and improving TVET performance will also require significant reforms. It is therefore essential that any TVET strategy should address the most critical challenges with an effective combination of financial resources and reforms (ILO et al., forthcoming).

Recommendation: Experiment, evaluate, and then expand those approaches that prove to be most impactful. Due to the prevailing knowledge gaps, embarking on large-scale reforms without reliable evidence on the nature of underlying constraints and sustainable solutions comes with a lot of risks. It might therefore be prudent to start with well-targeted pilots that are subject to strict monitoring and evaluation, after which lessons learned can be used both to develop larger scale reforms and to contribute to the regional (and global) knowledge base on strengthening TVET performance (Arias et al., 2019).

4.2.2 Promoting linkages between the productive sectors and TVET

Recommendations:

- ▶ Create an enabling environment for all stakeholders through leadership, clear mandates, conducive regulations, accountability mechanisms, capacity building and financial incentives.
- ▶ Consider a differentiated approach between sectors or activities, depending on the level of organization and capacity of the social partners.

- When considering sector skills bodies, ensure that the sectors are chosen carefully and that the functions of the sector bodies are closely aligned with sector needs and capacity.
- Pay sufficient attention to strengthening linkages between individual enterprises and TVET institutions.
- Make particular efforts to promote quality apprenticeships that develop linkages between productive sectors and TVET.
- Consider implementation capacity when developing TVET strategies and reforms.
- Balance aiming for short-term results with efforts to achieve structural system reforms.

Achieving the effective stakeholder collaboration that is needed to forge strong links between TVET and the productive sectors is a challenge in most countries in Africa. Strong TVET performance depends on the actions and interactions of a wide range of stakeholders, including enterprises and other social partners, various governmental institutions, education and training institutions, and learners and their households. Of particular importance is the establishment of strong linkages between stakeholders in the productive sectors (employers, employees and their representatives) and those working in TVET systems (management and teachers in TVET institutions, and their administrators). Achieving effective collaboration is challenging, especially in such contexts as are found in most countries in Africa, which are characterized by a fragmented and largely informal private sector, limited capacity and the absence of a strong tradition of collaboration among TVET stakeholders (ILO et al., forthcoming).

There are plenty of examples of approaches designed to strengthen the linkages between TVET and the productive sectors, but there is limited evidence on the prerequisites for their effectiveness. Collaboration mechanisms, both ad hoc and structural, exist in numerous countries, including in Africa, at all levels, ranging from collaboration between a single enterprise and a training provider, to coordination bodies at national and subnational levels. Examples include involving social partners in management boards of TVET institutions; the joint development or adjustment of training programmes; the introduction of apprenticeships and other forms of work-based learning; industrial attachments for teachers and trainers; and skills councils and observatories. While these approaches are all relatively common, there is little clear-cut evidence on what makes them effective. Still, lessons from which to draw do exist, and are summarized below.

Recommendation: Create an enabling environment for all stakeholders through leadership, clear mandates, conducive regulations, accountability mechanisms, capacity building, and financial incentives. For stakeholder engagement to be effective and sustainable, it requires not only the provision of platforms for communication between stakeholders, but also clarity of purpose and a clear understanding of stakeholder responsibilities (ILO and UNESCO, 2018). All stakeholders need to have the capacity and incentives to make the engagement work. This applies to social partners as well as stakeholders in TVET institutions, public officials and policymakers. Important levers for creating a conducive environment for forging strong linkages between TVET and the productive sectors include well-designed laws and regulations (UNESCO, 2020b), capacity building, strong accountability mechanisms and well-targeted financial incentives (Better TVET, forthcoming). For example, public TVET institutions will be more likely to form effective local partnerships when they have the autonomy and funding to do so and when they are held accountable for results in terms of the quality and relevance of their training (Better TVET, forthcoming).

Recommendation: Consider a differentiated approach between sectors or activities, depending on the level of organization and capacity of social partners. A differentiated approach to strengthening linkages with the productive sectors may be warranted due to different levels of readiness of social partners to engage in skills development. For example, in economic sectors where there is a clear skill demand and social partners are relatively well-organized and strong, efforts could focus on promoting sectoral skills councils and qualifications frameworks. On the other hand, where sectors are weaker

and social partners not yet well-organized, support efforts might focus on building their capacity before embarking on reform activities that depend crucially on effective social partner contributions. Differentiation can also be considered between social partners and the type of activities. The findings of the Social Partners survey suggest that the nature and incidence of engagement differ between types of social partners and activities. For example, engagement was found to be especially limited among union federations and, for all social partners, in the areas of teacher training and quality assurance. This could mean that it might be beneficial to apply a granular approach when designing interventions to strengthen social partner engagement. In other words, it needs to be clearly determined which particular activities and which particular social partners require strengthening, based on a sound understanding of where effective social partner engagement would be most impactful and feasible.

Recommendation: Sector skills bodies can contribute to strengthening the linkages between TVET and the productive sector when the sectors are well-chosen and the functions of the sector bodies are closely aligned with sector needs and capacity. Sector skills bodies are organizations whose overall objectives are to ensure that training meets the needs of employers and Government and to promote skills development in their field (ETF et al., 2016). Sector skills bodies are increasingly considered to be a useful way of systematically promoting stakeholder coordination and engaging the private sector in skills development. In practice, the track record of sector skills bodies is uneven, and several lessons are emerging that should help to identify where and how they can be most effective (ILO, 2021b). Sector selection is important. Sector skills bodies are likely to be more effective in sectors that have a high employment and growth potential, significant skills shortages that are identified through rigorous processes, and that are considered a priority sector by the Government (ILO, 2021b). Also, when sector skills bodies are supported by donors, it remains crucial to have strong buy-in from key stakeholders, such as employers and government authorities (Dunbar and McKerracher, 2022). Equally important is the determination of the objectives and responsibilities of the sector skills bodies. Sector skills bodies can potentially engage in a wide range of activities, including, for example, the development of sector-level skills intelligence and the targeting of investments (see box 4.4), and it is important to determine the appropriate focus, guided by a clear understanding of the sectoral contexts and priorities, and the available funding (Dunbar and McKerracher, 2022).

Box 4.4 The various potential roles of sector skills bodies

A recent resource guide developed by the ILO distinguishes four broad categories of potential roles of sector skills bodies, as follows:

1. Advise
 - ▶ Provide policy advice and feedback
 - ▶ Generate and/or interpret labour market intelligence
2. Design
 - ▶ Develop and maintain skill standards
 - ▶ Develop qualifications
 - ▶ Develop curriculum and learning resources
 - ▶ Develop apprenticeship pathways

3. Support

- ▶ Support quality assurance of training providers, courses and assessors
- ▶ Promote the benefits of training
- ▶ Promote careers information, advice and guidance
- ▶ Contribute to training delivery and assessment
- ▶ Support the professional development of teachers, trainers and assessors

4. Manage

- ▶ Manage and promote apprenticeships
- ▶ Coordinate training in the sector
- ▶ Manage government training initiatives and programmes
- ▶ Administer levy funds
- ▶ Manage assessment and certification

Source: ILO (2021b).

Recommendation: In addition to higher-level interactions, pay sufficient attention to strengthening linkages between individual enterprises and TVET institutions. There is a risk that efforts to promote stakeholder collaboration focus disproportionately on strategic and policy-level activities (involving higher-level coordination processes between Governments, employers' associations and workers unions) and less on interactions between individual enterprises and TVET institutions. Yet, these "on the ground" interactions are where concrete skills development results are achieved. Examples of possible interactions at this level are plentiful and include, among others, employers' participation in actual training provision, by providing work-based learning opportunities or designating staff to provide instruction in the TVET institutions. Employers can help to shape training delivery; for example, by informing TVET institutions of their skill needs or participating in management boards. Employers can also help to fund TVET institutions by providing financing or in-kind contributions, such as equipment or learning materials. Concrete activities to promote effective interaction revolve around improving the willingness and ability of key stakeholder to collaborate, and can include, for example, information provision, introducing legislation that promotes or requires collaboration, capacity building activities and financial incentives (UNESCO, 2020b). Box 4.5 provides more elaborate examples.

Box 4.5 Recommendations to enhance partnerships between TVET institutions and productive sectors

Create a more conducive governance and financing framework:

- ▶ Harmonize policies, legislation, strategies and action plans to create a coherent and clear framework for promoting public-private partnerships in TVET.
- ▶ Modify laws and regulations to increase the share of private sector and social partner representatives in the governance bodies of TVET institutions.
- ▶ Delegate more authority to TVET institutions for local management decisions that involve undertaking initiatives and forming local partnerships with private sector companies.
- ▶ Adapt funding mechanisms to incentivize work-based learning and apprenticeships for both TVET institutions and employers.
- ▶ Incentivize employers to engage with TVET institutions through offering tax deductions.

Additional nudges to promote collaboration between enterprises and TVET institutions:

- ▶ Organize national competitions to motivate the productive sector to partner with TVET institutions.
- ▶ Use media, including social media, to promote the importance of stronger linkages between individual enterprises and TVET institutions.

Improve capacity:

- ▶ Allocate budgets for capacity building of all stakeholders.
- ▶ Build capacity for TVET institutions in the areas of leadership and partnership development; for example, by establishing units in TVET institutions with responsibility for creating and maintaining partnerships with companies and workplaces.
- ▶ Create or strengthen mechanisms that support firms in providing work-based learning to TVET learners (as part of their training programme) and TVET teachers (for continuing professional development).
- ▶ Strengthen the capacity for work-based learning by offering training to in-company instructors, providing educational materials and supporting evaluation mechanisms for work-based learning.

Source: UNESCO (2020b).

Recommendation: Make particular efforts to promote quality apprenticeships, including in the informal economy, that develop linkages between productive sectors and TVET. Quality apprenticeships, sometimes known as dual training systems, require training to be planned and delivered by TVET providers and enterprises working collaboratively. So, the process naturally develops effective linkages between the productive sector and TVET (see also section 4.2.4). In Africa, given the large size of the informal economy, TVET cannot substantially strengthen linkages with the productive sector without also reaching informal employers and workers. The informal economy is hard to reach, given its composition of mainly micro- and small enterprises and its lack of organization and representation. Efforts to improve the quality of apprenticeships in the informal economy (an endeavour concerning which there is substantial experience in Africa) could be an effective way of engaging social partners, including small business associations, cooperatives and similar organizations that represent or collaborate with informal sector employers (see also section 4.2.4). Aggarwal and Aggarwal (2021), in their “New Directions for Apprenticeships” article, provide an overview of the innovations and new developments that have the potential to make apprenticeships more attractive and effective.

4.2.3 Strengthening TVET governance and financing

Recommendations:

- ▶ Governance mechanisms at all levels should provide mandates for government authorities, social partners and other stakeholders that are clear, coherent and derived from the TVET strategy.
- ▶ Increase and diversify sustainable funding for TVET.
- ▶ Improve the effectiveness of expenditures by strengthening evidence-based accountability mechanisms, focused on end-results

Strong governance and financing mechanisms are among the fundamental building blocks of TVET systems. In conjunction with a sound vision and strategy for TVET, and effective stakeholder engagement to promote linkages with the productive sectors, governance and financing mechanisms are among the crucial foundations of TVET systems that determine their performance (ILO et al., forthcoming). Governance and financing mechanisms of TVET systems in most countries in Africa face various challenges that impede their effectiveness. In terms of governance, challenges include mandates that are fragmented, unclear, not aligned with TVET strategy, or otherwise ineffective. Regarding funding, they include limited funding and funding sources, and inefficient expenditure mechanisms. Recommendations for addressing the most prevalent challenges are proposed below.

Recommendation: Governance mechanisms at all levels should provide mandates for government authorities, social partners and other stakeholders that are clear, coherent and derived from the TVET strategy. The wide range of TVET stakeholders includes different ministries and government agencies at the national, subnational and local levels; social partners, such as employers' and workers' organizations; civil society organizations; TVET providers; enterprises offering work-based learning; and, of course, TVET learners and their households. Effective governance with this large number and variety of stakeholders requires strong leadership; clearly defined and appropriate rights and responsibilities of each of these stakeholders, based on shared strategic objectives and plans for TVET; and institutional coordination mechanisms that ensure sound coordination, collaboration, facilitation and oversight (World Bank, 2013). These aspects should be in place from the national level, where overall decisions on policies, systems, programmes and funding are made, to the school-level, where local actors collaborate to achieve contextualized training programme design and implementation. This requires strong inter-governmental collaboration and transparency on the design and implementation of strategies, policies and interventions, and the existence of functional coordination mechanisms that empower and facilitate the effective engagement of both governmental and non-governmental actors, and that promote both internal and external accountability. Box 4.6 describes how the ILO, in collaboration with UNESCO, supported the Government and other stakeholders in the DRC in strengthening governance of the skills system.

Box 4.6 ILO–UNESCO collaboration to support the Democratic Republic of the Congo's Committee on employment and skills development

In the DRC, a lack of interministerial dialogue and competition between agencies contributed to weak governance and a fragmented skills system but, as a result of efforts by the ILO and UNESCO, the Government established by decree a tripartite national council to supervise the formulation of the new strategy and action plan for the sector. The national parliament also agreed to establish a new committee focused on employment and skills development, which will serve as the monitoring body for the new national skills action plan and ensure proper budget allocation for employment and skills development actions. These new governance arrangements for skills development have established an unprecedented foundation for enhanced cooperation and coordinated delivery on skills development among constituents in the DRC.

With technical assistance from the ILO and UNESCO, the new policy and action plan has been developed through numerous national and regional consultations involving all key actors in the public and private sectors. Supported by an innovative online portal and digital assessment tools developed in partnership with the International Training Centre (ITC) Turin, a wider group of constituents was able to provide inputs and comment on drafts, and the policy was developed. This process gained the support of other major development partners in the country, who have now pledged funds to support ongoing implementation.

Recommendation: Increase and diversify sustainable funding for TVET. TVET systems in Africa are generally underfunded, and efforts to increase funding should be made. In most countries, formal TVET is overwhelmingly funded from public resources. This may make sense in countries and sectors where the private sector is unable and unwilling to provide increased funding. In other cases, where the private sector has enough incentives and capacity, options can be explored to increase the level of private sector contributions. Such diversification of funding sources may also improve the sustainability of resources for TVET. Alternative options for (gradually) increasing private sector contributions include, for example, national and sectoral skills funds, and levy–grant mechanisms. As highlighted in Chapter 2, managing such mechanisms effectively is challenging and, therefore, requires careful consideration and close monitoring, and particular attention should be devoted to ensuring that the private sector is sufficiently empowered in terms of funding allocation and oversight. Other options to increase private sector contributions involve incentivizing the provision of “in-kind” resources, such as by promoting apprenticeships and other forms of work-based learning (see section 4.2.4).

Recommendation: Improve the effectiveness of expenditures by strengthening evidence-based accountability mechanisms, focused on end-results. In addition to allocating more funding to TVET, the resources that are currently available can be allocated more effectively, so that better results can be achieved with similar resources. In addition to ensuring that financial management mechanisms are adequate and transparent, the effectiveness of spending can be improved by linking expenditures with strategic results. Depending on country contexts, such strategic results are likely to be described in terms of improvements in TVET quality, relevance, equity or access, or a combination of these. Effective results-orientation requires accountability and financing mechanisms that provide all stakeholders with appropriate incentives to achieve clear, attainable and measurable results, accompanied by a well-functioning monitoring and evaluation system to measure and report on results achieved (ILO et al., forthcoming).

4.2.4 Addressing critical challenges to improve the quality, relevance and inclusiveness of TVET

Recommendations:

- ▶ Take steps towards implementing a new dual model of training delivery, whereby training is increasingly delivered in workplaces, including through quality apprenticeships.
- ▶ Consider the skill needs and opportunities of the informal economy as well as the formal sector.
- ▶ Strengthen TVET quality and relevance by aligning modular curricula with skill demand, promoting experiential learning and having well-qualified teachers and trainers.
- ▶ Incorporate a sufficient focus on core skills for lifelong learning in TVET curricula.
- ▶ Promote recognition of RPL to facilitate transitions to the formal economy and TVET.
- ▶ Expand access to TVET only when the quality and relevance of provision can be sufficiently assured.
- ▶ Apply a comprehensive enabling approach to promoting equity in TVET.
- ▶ Pay particular attention to ensuring that more women complete TVET, especially in high-return fields.
- ▶ Make smart use of the opportunities that technology offers.
- ▶ Make concerted efforts to collect and use credible and relevant data for decision-making.

In addition to strengthening the foundations of TVET systems (discussed above), targeted reforms are necessary to address specific critical constraints. This section proposes recommendations to address several of the key, common challenges that have been identified as hampering TVET performance

in Africa. This section starts by proposing recommendations to improve the quality and relevance of TVET delivery, so that TVET learners become better prepared to engage with the world of work. Subsequent recommendations focus on expanding access to TVET, especially for population groups who are relatively excluded, including women. The section concludes with recommendations on two areas that have been identified as being key to improving overall TVET performance, namely the use of technology and data.

Recommendations to improve the quality and relevance of TVET

Recommendation: Take steps towards implementing a new model of training delivery, whereby training is increasingly delivered in workplaces, including through quality apprenticeships.

Increased delivery of TVET in workplaces has multiple benefits. It would mitigate the small in-take capacity of TVET institutions, can help to improve the current weak quality and relevance of training delivery and would strengthen the role of the productive sectors in training provision. As formal apprenticeships are still rare in most countries and sectors, an appropriate approach may be to gradually increase the incidence and duration of formal work-based learning opportunities, to progressively develop a fully fledged formal apprenticeship system. The article “New Directions for Apprenticeships” (Aggarwal and Aggarwal, 2021) provides an overview of the innovations and new developments that have the potential to make apprenticeships more attractive and effective. During recent years, the ILO has made significant progress in developing innovative approaches and tools for promoting quality apprenticeships, including the development of the ILO Toolkits for Quality Apprenticeships, which provide guidance to policymakers and practitioners for developing and implementing effective policies, systems and programmes for apprenticeships (ILO, 2017b, 2020b).

Considering the growing importance of apprenticeships and an absence of international labour standards on apprenticeships, the Member States of the ILO, in collaboration with social partners, are developing a new labour standard on quality apprenticeships to bridge the regulatory gap and provide guidance to the Member States on developing and implementing effective laws and regulations for quality apprenticeships. This labour standard will also provide guidance on apprenticeships in the informal economy (see box 4.7).

Box 4.7 New international labour standard on quality apprenticeships

The International Labour Conference in 2022, as part of the process to develop a new international labour standard, adopted Conclusions on quality apprenticeships that provide guidance on the regulatory framework, apprenticeship agreements, equity and diversity, and promotion of quality apprenticeships and international cooperation. Key recommendations of this resolution are as follows:

- Establish regulatory frameworks, in consultation with employers’ and workers’ organizations, that:
 - specify occupation-specific or general standards for, among other things, the minimum age for admission and any educational qualifications or prior learning required; occupational safety and health measures; learning outcomes; duration; appropriate balance between off-the-job learning and on-the-job learning; nature of supervision required; assessment procedure; and qualification acquired on completion;
 - ensure that apprentices receive adequate remuneration or other financial compensation; that their entitlement to holidays and compensation for work-related injuries and illnesses is stipulated; that apprentices have access to social security and maternity protection; and that apprenticeships are governed by a written agreement.

- ▶ Promote equality and diversity in quality apprenticeships.
- ▶ Take measures to create an enabling environment for promoting quality apprenticeships, including by implementing effective and sustainable financing models; facilitating access to further education opportunities; using new technologies and innovative methods; undertaking awareness-raising activities and promotional campaigns to improve the image and attractiveness of apprenticeships.
- ▶ Take measures to facilitate the transition from the informal to the formal economy.
- ▶ Enhance cooperation and promote the recognition of qualifications nationally, regionally and internationally.

Source: ILO (2022).

Recommendation: Consider the skill needs and opportunities of the informal economy as well as the formal sector. Since the informal economy is where most workers in Africa are engaged, it is crucial to consider this part of the labour market when designing TVET programmes and reforms. This implies ensuring that there are TVET programmes that can provide workers with the skills needed in the informal economy (including, crucially, agriculture, where large shares of the working population, especially the poorest, are engaged). It also means focusing sufficient and specific attention on skills development that takes place in the informal economy, including through traditional/informal apprenticeships. Informal apprenticeships, and other forms of informal learning, are relatively widespread in most countries, but they are not subject to formal quality assurance measures and do not lead to formal qualifications. For informal learning, then, interventions could focus on strengthening quality and skills recognition. The ILO has carried out extensive work on informal apprenticeships and has developed a guide for upgrading informal apprenticeships in Africa (ILO, 2012a) and a policy brief (ILO, 2011) that provide policy guidance on upgrading informal apprenticeships. A recent ILO Working Paper draws on the findings of ten empirical studies as well as case studies to understand and compare the functioning of informal apprenticeship systems (Hofmann et al., 2022). Box 4.8 summarizes proposed measures for upgrading informal apprenticeships.

Box 4.8 Measures to upgrade informal apprenticeship systems as part of inclusive skills development systems

- ▶ Recognize and build on the existing system and informal practices.
- ▶ Strengthen the micro and small economic units by training master craftspersons in pedagogy and technical and business skills, ensuring their access to business development and financial services, and improve occupational safety and health at work.
- ▶ Strengthen collaboration and coordination among enterprises that offer apprenticeships, through cooperatives, professional associations, small business organizations and workers' organizations.
- ▶ Promote the use of written apprenticeship agreements, equal opportunities for female apprentices, the quality of training through upskilling of trainers; improve quality assurance mechanism and introduce skills assessment and certification.

- Improve the skills of apprentices by supplementing on-the-job training with off-the-job learning covering related theory, technical and business skills and core work skills.
- Promote the use of written apprenticeship agreements.
- Strengthen the capacity of small business associations to function as quality assurance agencies, i.e. registering agreements, monitoring the quality of training, assessing competencies and awarding certificates.
- Maintain the flexibility of the system to allow learners with diverse backgrounds to access skills training, while preventing exploitative practices through shared minimum standards

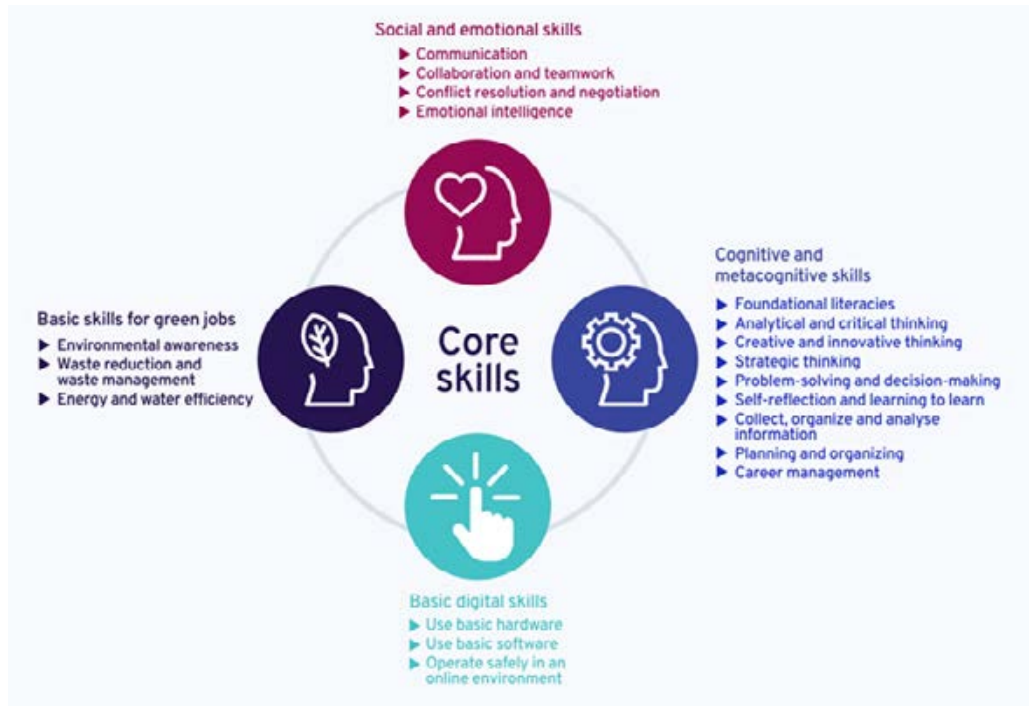
Source: Hofmann et al. (2022); ILO (2011, 2012b, 2020b).

In addition, Aggarwal (2013) has recommended that Governments should create a conducive policy environment for upgrading informal apprenticeships, which may include the provision of land and sheds for master craftpersons, funding and awards for the best-performing business associations and master craftpersons.

Recommendation: Strengthen TVET quality and relevance by aligning curricula with skill demand, promoting experiential learning and having well-qualified teachers and trainers. As key constraints to TVET quality and relevance include outdated, rigid programmes, insufficient attention to acquiring practical skills, and inadequately prepared teachers, reform efforts would do well to target improvements in these areas. Improving the relevance of training programmes implies collecting information on current and anticipated skill demand and incorporating this into programme design. Other reforms to consider, which would allow quicker and more localized customization and adaptation to changing skill demand, include applying modular curricula and flexible pathways (ILO, 2021c). The most promising approach for strengthening experiential learning is through improving the incidence, duration and quality of on-the-job learning which, as mentioned above, includes apprenticeships as well as other forms of work-based learning. Alternatively, practical learning can take place in the workshops and laboratories of TVET institutions. Robust systems for the validation of skills and competencies and career guidance, with the involvement of social partners, to create lifelong learning pathways, all combine to enable the portability of skills and facilitate labour, social and geographical mobility (ILO, forthcoming (c)). As indicated above, not all of these reforms and interventions will be appropriate in all contexts, and countries will need to determine their own priorities and pathways depending on their preferences, needs and capabilities.

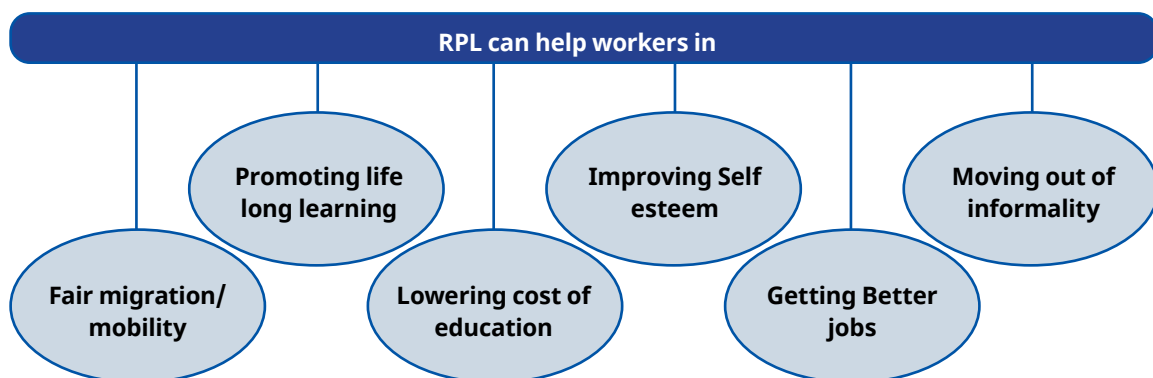
Recommendation: Incorporate a suitable focus on core skills for lifelong learning in TVET curricula. It is important to ensure that TVET graduates end their education with sufficient core skills to prepare them not just for their first job but for a productive career (Arias et al., 2019). As jobs are becoming more interdisciplinary in nature and lifelong learning is becoming essential to allow everyone to meet fast-changing skill needs, the importance of core skills is growing in the context of the future of work. Accordingly, the ILO, in collaboration with other United Nations organizations and partners, has developed a global framework for core skills in the twenty-first century that are relevant to all jobs. The core skills framework includes social and emotional, cognitive and metacognitive, basic digital and green skills (ILO, 2021d) (see figure 4.2).

Figure 4.2 ILO global framework for core skills for life and work in the twenty-first century



Recommendation: Promote RPL to facilitate transitions to the formal economy and TVET. Most learning in an individual’s life takes place through non-formal and informal means, which are usually not assessed or certified. However, Aggarwal (2015, p. iii) argues that “due to a lack of appropriate qualifications, a large proportion of people face severe disadvantage in getting decent jobs, migrating to other regions and accessing further education, even though they might have the necessary knowledge and skills”. RPL is a process that assists this cohort to acquire a formal qualification in line with their knowledge and skills, thus contributing to improving employability, mobility, lifelong learning, social inclusion and self-esteem (see figure 4.3). The ILO has developed a guide for policymakers for developing effective, equitable policies and a system for RPL in accordance with their national context (Aggarwal, 2015).

Figure 4.3 Benefits of recognition of prior learning



Source: Aggarwal (2015).

Recommendations to improve inclusiveness of TVET

Recommendation: Expand access to TVET only when the quality and relevance of TVET provision can be sufficiently assured. Pressure to expand access to TVET can be strong, especially in a context of high levels of youth unemployment and population growth, and rising completion rates of primary and lower secondary education. However, there is little purpose to TVET if it trains individuals for jobs that do not exist, or if it does not provide learners with the specific skills that are in demand. Expansion should therefore go hand in hand with measures that ensure a minimum level of quality and relevance of provision (ILO et al., forthcoming).

Recommendation: Apply a comprehensive enabling approach to promoting equity in TVET. Women, rural residents, the poor and other disadvantaged groups face not only various barriers to accessing TVET but also post-enrolment constraints that affect their retention and performance. Interventions to promote equity and inclusivity should be based on a clear understanding of who the most underserved population groups are, and their main constraints, so that well-targeted interventions can be designed. These might require a variety of approaches that, combined, create a more enabling environment to allow learners from disadvantaged population groups to enrol in and successfully complete TVET, including career guidance, financial incentives and activation schemes for learners; sensibilization of teaching staff and their deployment to remote areas; and adjustments to training delivery, such as part-time programmes or mobile training centres (UNESCO-UNEVOC, 2021). Moreover, in many countries, academic education, to varying extents, remains the privilege of the better-off, and those from poorer households are more likely to be tracked into TVET even when their abilities and preferences make them more suitable for academic education. Promoting equity, therefore, also means avoiding learners from disadvantaged backgrounds being channelled into TVET when they would be better off in general education.

Recommendation: Pay particular attention to ensuring that more women complete TVET, especially in high-return fields. In most countries, promoting the enrolment of girls and women in TVET requires multiple barriers, including financial constraints, care responsibilities and social norms, to be overcome. Appropriate interventions to promote enrolment can include the provision of information on the returns on TVET (for example, organizing “girls’ days” in TVET institutions); financial incentives; or the provision of childcare facilities. Once enrolled, retention and successful completion of TVET programmes can be promoted by providing a safe and inclusive learning environment, which includes a teaching corps that has been trained in gender-sensitive teaching and incorporates a substantial share of women, and teaching materials that are free of gender stereotypes. Information provision and a gender-sensitive learning environment can also help to entice women to enter male-dominated fields, for which labour market returns tend to be relatively high, as does the presence of female mentors and role models (ILO et al., forthcoming; ILO, 2018c, 2021c).

Recommendations for exploiting the opportunities of technology

Recommendation: Make smart use of the opportunities that technology offers. The opportunities for applying technology to improve TVET performance are vast and continuously expanding (see Appendix D). Digitalization and other technological advancements can, among other things, contribute to providing equitable access to skills development and the labour market, and improving the efficiency and effectiveness of mechanisms for skills anticipation, monitoring, recognition and certification (ILO, 2021e). For example, remote learning can facilitate access to TVET, including for disadvantaged groups. It can improve TVET quality, by strengthening teacher development and learning processes, and TVET relevance by improving the speed and accuracy of skill needs assessments. TVET can also improve cost-efficiency by automating processes throughout TVET systems). TVET systems in Africa have typically been slow to exploit the potential benefits of technology, which means that there are still many gains to be made. Reforms need to be aligned with context, which often means that they should consider limitations in connectivity and infrastructure, funding, digital literacy and human resources. Still, there are plenty of opportunities to exploit, including in the areas of learning materials, online and blended programme delivery, work-based learning, and credentialling and RPL. Such applications can be “high-tech” in sectors and fields where



the context allows and “low-tech” – for example, relying on radio, television and first-generation mobile phones – in others. Meaningful reforms to consider include: creating a supportive enabling environment for effective technology use in TVET (including legislation, funding, infrastructure and administration in TVET institutions); improving capacity and incentives of TVET teachers and managers; encouraging partnerships between Government, training institutions and technology companies; fostering the use of open educational resources – for example, by investing in digital learning platforms; and encouraging innovation and pilots, with the option of scaling (Hoosen et al., n.d.; World Bank, 2021).

Recommendations for facilitating evidence-based decision-making

Recommendation: Make concerted efforts to collect and use credible and relevant data for decision-making. To improve the effectiveness of efforts to strengthen TVET performance, important data gaps need to be addressed. These include knowledge on the context in which TVET systems operate, features of the TVET system and their impact, the main performance constraints and the best possible approaches to address these constraints. As with other efforts to improve TVET performance, activities related to improving evidence-based decision-making should consider both addressing immediate data needs (to inform ongoing reform processes) and strengthening the institutional capacity and mechanisms so that the collection and use of information is structurally integrated into decision-making. Box 4.9 provides an example of the collection and dissemination of data relating to the impact of the COVID-19 pandemic on in-company training, conducted by a partnership of the ILO, AfDB and others. To assist in evaluating and benchmarking apprenticeships, the ILO has developed a tool for the review of a country’s apprenticeship policy and system (Aggarwal and Field, 2021). In 2021–22, it was used to carry out a comparative analysis of apprenticeship systems and apprenticeship enrolment in 21 countries (ILO, forthcoming (b)).

Box 4.9 Global survey on the impact of the COVID-19 crisis on skilling, upskilling and reskilling of employees, apprentices and interns/trainees

In collaboration with nine international and regional development agencies (AfDB, Asian Development Bank, European Commission, Cedefop, ETF, Global Apprenticeship Network, OECD, UNESCO and World Bank), the ILO launched a global survey to examine the impact of the COVID-19 crisis on skilling, upskilling and reskilling of employees, apprentices and interns/trainees in enterprises and other organizations. A report presented the survey findings, good practices and innovative solutions to mitigate the impact of the pandemic, as well as policy recommendations to address the effects of the pandemic on skills development systems and work-based learning programmes.²² Two webinars were organized in collaboration with other partners to disseminate the findings and build awareness and capacity to respond to the COVID-19 crisis (ILO et al. (2021)).

²² See https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_794569.pdf.

Box 4.10 provides an example of capacity building to strengthen systemic capacity for skills anticipation.

Box 4.10 ILO, AUC, AUDA-NEPAD collaboration on the Skills Initiative for Africa (SIFA)

The ILO and the AUC joined forces with the African Union Development Agency–New Partnership for Africa’s Development (AUDA-NEPAD) between the skill needs anticipation component of the SIFA initiative and the Joint Labour Migration Programme for Africa and organized a training programme on skills needs anticipation and matching from 13 July 2020 to 28 August 2020 for 68 participants from African countries. The training aimed to strengthen the capacity of the AU Member States to anticipate the current and future skills needs in the labour market, including in migration policy.

The training was organized into online training units complemented by weekly webinars. The target audience included labour market and skills development experts from ministries of labour and education, central statistical offices, organizations in charge of skills development, and policy research institutions.

4.2.5 Recommendations for strengthening the effectiveness and sustainability of development partners’ contributions to TVET

Recommendations:

- Development partners can align their TVET support with their activities in other areas – for example, in the case of the AfDB, with their High 5 Priorities.
- Development partners are well placed to play a key role in knowledge development and dissemination, including at continental or regional levels.
- Ensure that staff are well prepared to carry out their intended tasks.
- Apply good practices in project management, implementation and supervision.

Beyond general guidance on improving TVET performance, specific recommendations for development partners can be formulated. The recommendations on improving TVET performance, including through strengthening social partner engagement, as described in the preceding sub-chapters, apply to development partners as well as other stakeholders working in the TVET sphere. There are also recommendations that are particularly pertinent for development partners, given their mandates, international (often global) reach and networks, their financial and human resources, and their current practices. Recommendations for development partners relate both to the type of activities that they carry out, and the way in which they execute them.

Recommendation: Development partners can align their TVET support with their activities in other areas – for example, in the case of the AfDB, with their High 5 Priorities. Beyond the need for development partners to align skills development interventions with national development priorities, there can also be substantial benefits to aligning TVET activities with development partners’ other priorities and investments. For example, as highlighted in section 1.1, the AfDB’s High 5 Priorities, as identified in the Africa Union’s Agenda 2063, require the building of particular skills for particular population groups to be achieved. Aligning TVET activities with these broader goals will not only contribute to achieving them but will also increase the likelihood that the TVET interventions will support training that is relevant and promotes employability, productivity and broader societal goals.

Recommendation: Development partners are well placed to play a key role in knowledge development and dissemination, including at continental or regional levels. Since knowledge is a global public good, development partners could play appropriate roles as initiators, convening partners,

financers or executors of knowledge development and dissemination activities. Existing similarities in context and challenges between Africa's countries and other low- and middle-income countries in other regions imply that there is significant scope for international collaboration and knowledge sharing. Development partners working at regional and global levels could make substantial contributions in this area, by acting as convening partners and playing a decisive role in the sharing of international practices and joint capacity building. The East Africa Skills for Transformation and Regional Integration Project, for example, supported by the World Bank, promotes cross-border collaboration between TVET institutes and industry in Ethiopia, Kenya and the United Republic of Tanzania (World Bank, 2018). Box 4.11 summarizes a cross-national initiative by the ILO and other stakeholders that supports tripartite skills partnerships in various migration corridors across Africa. Future continental or regional initiatives could consider focusing on, for example, establishing knowledge centres for curriculum development, teacher training or promoting the linkages between TVET and the productive sectors.

Box 4.11 Global Skills Partnership on Migration: ILO-IOM-UNESCO-IOE-ITUC collaboration

Under the Global Skills Partnership on Migration (a collaboration between the ILO, International Organization for Migration (IOM), UNESCO, International Organisation of Employers (IOE) and International Trade Union Confederation (ITUC)), the ILO supports tripartite skills partnerships on migration in multiple migration corridors in Africa.²³ For example, the partnership between Ghana, Nigeria and Togo works towards developing joint minimum skills standards for mutual skills recognition and harmonization in the construction and agriculture sectors.

The ILO is currently active in the following regions

- ▶ “Ghana–Togo–Nigeria” corridor: 144 people were trained to design occupational standards and three harmonized occupational standards are being developed for masonry, plumbing and poultry farming.
- ▶ “Mauritania–Senegal” corridor: 72 government, employers’ and workers’ organizations were trained on the development and financing of RPL in Mauritania and steps have been taken to create a tripartite national working group to oversee the RPL development process. For the pilot, 40 RPL candidates from six different occupations are due to have their skills assessed in September 2022.
- ▶ “Ethiopia–Kenya” corridor and “Ethiopia–South Africa” corridor: The ILO is supporting the creation of skills recognition mechanisms for domestic workers and welders through occupational standards alignment and RPL.
- ▶ Central Africa: The ILO collaborated with the Institut National de Préparation Professionnelle, the national training agency in DRC, to pilot skills training and recognition for migrant workers and refugees and 298 migrant workers and refugees received technical and entrepreneurship training.

Recommendation: Ensure staff are well prepared to carry out their intended tasks. Various tools and approaches can be applied to improve staff effectiveness. Options that can be considered include providing documentation that describes priorities and offering guidance and tools, including on how to integrate skills activities in broader development interventions, and ensuring that sufficient technical support is available for areas of growing demand and where significant knowledge gaps exist (ILO, 2016a).

Recommendation: As also emphasized in the evaluations of several investments in TVET by the AfDB (box 4.12), effective project management is essential to ensure efficient investments of both Government and development partner funding, and the achievement of intended objectives. In this regard, the AfDB evaluations noted the importance of ensuring that project management teams

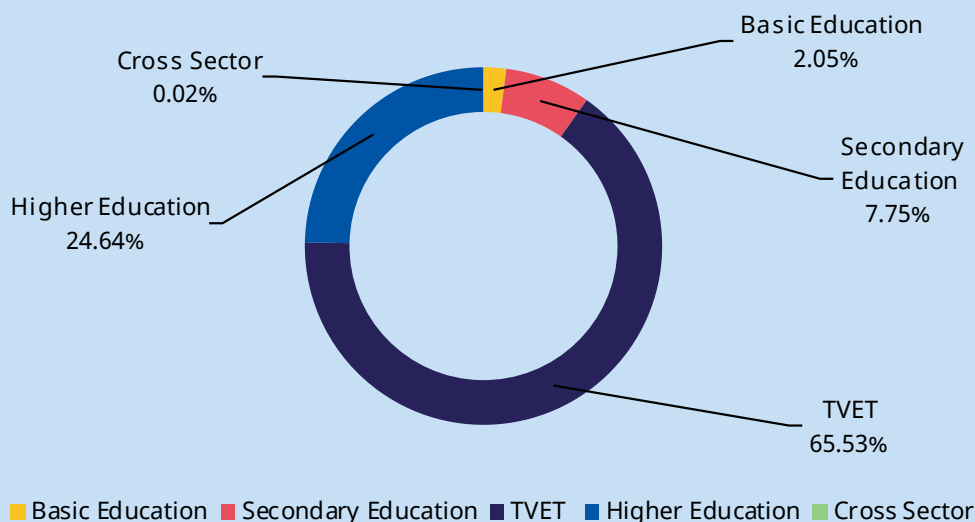
23 See https://www.ilo.org/skills/pubs/WCMS_653993/lang--en/index.htm.

had effective leadership, and that these teams were continuously staffed with sufficient numbers of dedicated and well-qualified staff. Further requirements for effective implementation that were found to deserve particular attention were strong supervision practices, appropriate procurement processing and adequate levels of stakeholder participation. Additionally, as highlighted by an evaluation of the ILO’s skills development activities (ILO, 2016a) performance indicators and the way that they are measured need to be well aligned with intended outcomes.

Box 4.12 Lessons learned from African Development Bank’s investments in TVET

Investments in TVET and skills, through standalone projects and as part of broader education projects, have been an integral part of the African Development Bank’s portfolio. Between 2014 and 2020, the Bank committed approximately UA 694 million²⁴ (US\$972 million) in loans and grants to the education sector, of which two thirds were allocated to TVET (figure 4.4). About 55 per cent of the total approved funds were allocated through the African Development Bank (ADB) window dedicated to the Middle-Income Country category and 43 per cent through its African Development Fund (ADF) window dedicated to the Low-Income Country category. The highest number of approved projects (31 out of 46) were funded by the ADF, compared to eight projects that were funded through the ADB. The remaining projects were funded through the Nigeria Trust Fund, the Middle-Income Country Technical Assistance Fund and the Special Relief Fund. ADB-funded projects were, on average, four times the average size of a stand-alone ADF-funded project – UA 47.9 million (US\$67 million) and UA 10.9 million (US\$15.3 million) per project, respectively.

Figure 4.4 AfDB Education Portfolio 2014–20, allocation by sub-sector (%)



Source AfDB (2021).

Evaluations of various projects have provided a set of lessons learned that can be taken into account during the design and implementation of future interventions. Lessons learned have been developed for the “Support to Vocational Education and Training and Teacher Education” project that was implemented in the United Republic of Tanzania from 2014 to 2019 and for the “Development of Skills for Industry” project that was implemented in Ghana in the period 2012–19. Additional observations were generated following the implementation of the “Skills Development

²⁴ The AfDB uses Unit of Account (UA) as its reporting currency, equivalent to the IMF’s Special Drawing Right.

and Entrepreneurship Project Supporting Women and Youth” in Zambia (2016–21). (See the project fiches in Appendix C.)

Regarding project design, lessons learned include the need to align project objectives and activities with national development priorities including, where appropriate, during project implementation if these priorities change. Clear alignment of project objectives with development priorities identified by national Governments is key to the successful achievement of project results. This might include adjusting project design during implementation to align the project with changing country priorities, especially when there is otherwise a risk of reduced Government commitment for project implementation and the allocation of counterpart funding, as has been observed in the United Republic of Tanzania. In Ghana, at the request of the Government, the project included activities during the implementation stage that had not been considered during the design phase – among others, to build capacity for rolling out the National TVET qualifications framework.

Specific, well-targeted measures are needed to achieve objectives concerning gender equality. Achieving equal access for females in TVET requires specific actions, such as providing role models and bursary support. Role model programmes can encourage female participation, especially in male-dominated trades such as electronics, vehicle paintwork repair and welding. In the Tanzanian project, gender parity was stated to be a priority in the design phase, but no specific actions to improve gender equity were reported to have been executed.

Project design needs to consider implementation capacity, and activities should not start before there is sufficient readiness for execution. Implementation of the Tanzanian project was complicated by the fact that project activities were spread over a large number of training centres, which stretched the capacity of those responsible for implementation and resulted in inefficiencies. The project in Ghana highlighted the importance of being sufficiently prepared before starting activities, for example concerning the need to undertake high-quality technical studies before starting civil works.

Engaging key Government stakeholders in the establishment of a Project Support Unit (PSU) can benefit implementation effectiveness. In Ghana, the PSU was established with support from the Ministry of Education and the Council for Technical and Vocational Education and Training (COTVET). This helped in promoting ownership and facilitated quick decision-making and the direct monitoring of project performance.

Counterpart funding (whether direct or via tax exemptions) should be available on time to avoid delays in implementation. In Ghana, delays in counterpart funding caused delays in the civil works, including extended contract periods and complaints from contractors and supervision consultants. Similarly, delays in providing tax exemptions for project activities had an adverse impact on the timely attainment of project deliverables.

Many implementation challenges and delays can be avoided through effective project management, but important weaknesses in project teams and management were found in the reviewed projects. In the United Republic of Tanzania, weak project management contributed to inefficient utilization of ADF funds, poor allocation of Government funds and the failure to achieve various objectives. Procurement processing inefficiencies and weak supervision were partly responsible for implementation delays, and weak participation by stakeholders ranging from local government administrations, local communities and consultants to contractors further contributed to delays in the civil works. In all three projects, there were flaws in the process for selecting project management teams. In the United Republic of Tanzania, the Project Coordination Unit (PCU) had no dedicated leadership. There were no specific designated staff for various activities and the retention rate was low, leaving major gaps in the continuity of management activities, and the team in general was found to lack the necessary skills for project supervision and reporting.

► 4.3 Areas for further research

There is a need for more knowledge on TVET in Africa to inform the design and implementation of TVET reforms. The literature review revealed a paucity of robust, peer-reviewed research on TVET in Africa. This is worrying, because many interventions in skills and TVET are based on assumptions and aspirations, and in many cases they are not particularly successful. It is therefore important to expand the research base with strong analyses on relevant topics that can be used to structurally strengthen TVET performance on the continent. Knowledge gaps exist, broadly, in three categories: understanding the key features of the current system; how it performs; and how to improve it.

Basic information on the current scope and nature of skills development and TVET is needed, especially on training that is provided in companies and by private TVET institutions. It can be difficult to collect reliable and comprehensive data on relatively simple indicators, such as the number of learners and teachers in public training institutions in a country, due to fragmentation in governance, among other factors. Data are even scarcer on training provided by the private sector (McGrath et al., 2019). TVET provision by private training institutions regularly escapes public sector oversight. Even less tends to be known about in-company training, especially in informal firms, yet there is growing awareness about the contribution that traditional and informal apprenticeships make to a country's skills base (Akoojee et al., 2013; Hofmann et al., 2022). More insights into the scope and nature of training – who provides the training, who are the recipients, how is the training provided – constitute essential information when developing reforms.

The Social Partners surveys pointed to two specific aspects of enterprise-based training that might merit further attention: supply-chain training and employer and employee organizations' perceptions of skill development that takes place in firms. Concerning supply-chain training, employers reported providing training to employees of firms in their supply chain more often than would have been expected. If this type of training does indeed occur more often than is commonly assumed, such activities could serve more frequently as a basis for strengthening skills development through in-firm training, especially considering that survey respondents indicated that this type of training also regularly targets informal enterprises. Concerning perceptions of skills development that takes place in firms, the survey results implied that representative organizations might underestimate the incidence of informal on-the-job training – including informal apprenticeship. If this is indeed the case, then this might point to a broader lack of understanding of (enterprise-based) skills development, which would negatively affect these organizations' ability to play their intended role in promoting skills development for their constituents; an impediment that could be addressed through capacity building.

In addition to more information on what TVET systems look like, more information is needed on how they perform in terms of access, equity, quality and relevance. In most countries, the overarching objectives of TVET systems are to promote the employability of individuals and the productivity of firms, and performance objectives can be described in terms of the system's ability to provide equitable access to high-quality TVET that responds to critical skills demand (ILO et al., forthcoming). In most countries, including in Africa, there is insufficient knowledge of how TVET performs in these areas of access, equity, quality and relevance. This, in turn, prevents policymakers and other stakeholders from making an informed assessment of the system's strengths and weaknesses, making it difficult to identify well-founded priority reform objectives. Important gaps tend to exist in understanding the scope and nature of skills demand and the extent to which current TVET responds to this demand (relevance); learning outcomes of those who benefitted from TVET (quality); gaps between the number of individuals wanting to enrol in particular TVET programmes in comparison to the available capacity (access); and the extent to which access is constrained for particular population groups, such as the poor, women,

rural residents, people with disabilities or refugees and migrants (equity) (ILO et al., forthcoming). On all these topics, knowledge gaps exist related to formal TVET (including formal apprenticeships), traditional apprenticeships and other forms of on-the-job training.

Finally, more research is needed on performance constraints and effective interventions to structurally address them. To strengthen TVET performance, more knowledge is needed on the underlying causes of underperformance. A forthcoming multi-agency report on TVET in low- and middle-income countries suggests that underlying constraints tend to revolve around the interdependent factors of ineffective stakeholder interactions and weaknesses in the foundations of TVET in terms of vision and strategic framework, governance and financing (ILO et al., forthcoming). The lack of knowledge concerning performance constraints creates a risk of policy borrowing instead of policy learning, which can prove especially ineffective if the policies are borrowed from (higher-income) countries with very different contexts in terms of TVET systems, economic structure and socio-economic context (Chakroun, 2010; Turbin, 2001). Interventions and reforms that have already been implemented should be monitored and evaluated to generate lessons learned; but often they are not. Evaluations would be especially useful for initiatives that are (planned to be) widely implemented but appear to have mixed results in terms of effectiveness, efficiency and sustainability; this includes, for example, mechanisms for skills anticipation, national and regional qualifications frameworks, RPL schemes, sector skills bodies and training levies.

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Appendices

▶ Appendix A. Priority skills interventions based on country typology.

Arias et al. (2019) suggest priority areas for skills reforms based on countries' level of structural reform and the extent to which the policy environment is conducive to reaping the returns on investment in skills development. The typology and suggested focus areas for skills development are summarized in table A.1.

Table A.1 Priority skills interventions based on country typology

Country type, features and examples	Appropriate focus areas
<p>1. More advanced transformation and a policy environment conducive to reaping returns on skills investment</p> <p>Upper-middle- and high-income countries that, relative to the rest of the region, made most progress in reallocating labour to more productive activities and improving the business environment (e.g. Botswana, Mauritius, Seychelles and South Africa)</p>	<p><i>Business environment:</i></p> <ol style="list-style-type: none"> 1. Continue to implement policy reforms to improve their global competitiveness standing <p><i>Skills development:</i></p> <ol style="list-style-type: none"> 1. Post-secondary technical skills through TVET, higher education and on-the-job training, including by leveraging the private sector 2. Skills for disadvantaged youths and adults
<p>2. Transforming and a less conducive policy environment</p> <p>Countries that made progress in moving labour out of agriculture and growing their economies, but still lag in economic and regulatory reforms (e.g. Ghana and Namibia)</p>	<p><i>Business environment:</i></p> <ol style="list-style-type: none"> 1. Ramp up reforms so that investments in skills pay off <p><i>Skills development:</i></p> <ol style="list-style-type: none"> 2. Post-secondary technical skills for growing sectors to aid economic transformation 3. Skills for disadvantaged youths and adults
<p>3. Natural resource rich and a less conducive policy environment</p> <p>Countries that are rich in natural resources but have less diversified economies and mostly lag in reforms (e.g. Angola, Cameroon, Congo, Gabon, Mauritania and Nigeria)</p>	<p><i>Business environment:</i></p> <ol style="list-style-type: none"> 1. Reforms to promote transformation and diversification <p><i>Skills development:</i></p> <ol style="list-style-type: none"> 1. Post-secondary technical skills tied to natural resources and related sectors, through industry-led training and public-private partnerships for specialized training abroad 2. Skills for disadvantaged youths and adults

Country type, features and examples	Appropriate focus areas
<p>4. Conducive policy environment and lagging in transformation</p> <p>Countries that have made efforts to improve the business environment yet lag in economic transformation (e.g. Mozambique and Rwanda)</p>	<p><i>Business environment:</i></p> <ol style="list-style-type: none"> 1. Deepen reforms to promote transformation <p><i>Skills development:</i></p> <ol style="list-style-type: none"> 1. Selective investments in post-secondary technical skills linked to growth sectors 2. Skills for improving earnings and livelihoods in low-productivity sectors
<p>5. Lagging in transformation and a less conducive policy environment</p> <p>Countries with a substantial pending agenda to create a business environment that spurs private investment, rewards and incentivizes skills investments, and achieves sustained economic growth and productive transformation (e.g. Central African Republic, DRC, Guinea-Bissau, Somalia)</p>	<p><i>Business environment:</i></p> <ol style="list-style-type: none"> 1. Reforms to ignite economic transformation <p><i>Skills development:</i></p> <ol style="list-style-type: none"> 2. Selective investments in post-secondary technical skills linked to growth sectors 3. Support livelihoods for inclusion and social cohesion 4. Public-private partnerships to leverage private provision, including in basic education

Source: Arias et al. (2019).

▶ Appendix B. Regional Qualifications Frameworks: Ongoing initiatives²⁵

African Standards and Guidelines for Quality Assurance (ASG-QA). The ASG-QA, approved in 2019, was developed through the Harmonisation of African Higher Education Quality Assurance and Accreditation initiative. It offers guidelines proposing the definition of learning outcomes for all programmes and their benchmarking against level descriptors of national or regional qualifications frameworks. The ASG-QA includes guidelines that address open and distance learning. In 2019, eight African national quality agencies participated in pilot external evaluations testing the ASG-QA.

Southern African Development Community (SADC). Southern Africa has the most advanced regional framework, approved since 2011 and “reactivated” in 2017 (AU, 2020). Following a protocol on education and training in 1997, a technical committee was established to attempt to relate (“harmonize”) qualifications across national borders in the region. The work of this committee was influenced by the emerging qualifications frameworks in South Africa, Namibia and Mauritius and, by March 2005, a SADC concept document for ensuring comparability of qualifications and credits across borders in the SADC region was adopted (Keevy, 2009). The intention is for all countries of the SADC to align their qualifications frameworks or systems with the regional framework. A tool for self-assessment has been disseminated, with support from the European Training Foundation. Peer learning and capacity building workshops have been undertaken to assist the countries with the process. Eight countries (Botswana, Eswatini, Lesotho, Mauritius, Namibia, Seychelles, South Africa and Zambia) agreed to be part of a pilot phase of alignment in 2017, and Angola, DRC and Zimbabwe joined in 2019. According to the AU report, two Member States – Seychelles and South Africa – had completed this exercise by 2020. What it has actually achieved since then is not clear and there is no published peer-reviewed research. A recent report of the South African Qualifications Authority states that the process of alignment was “revived” in 2016 (Jaftha and Samuels, 2017) and an online document (SADC, 2017) describes it, albeit still in terms of how it will operate in the future rather than how it currently operates.

Economic Community of West African States (Ecowas). In the Ecowas region,²⁶ guidelines for regional and national qualifications frameworks were approved by ministers of education in October 2013 (AU, 2020). The AU report suggests that Cape Verde, Gambia, Ghana, Nigeria and Senegal have functional national frameworks, and the report further argues that a common approach will be adopted for the development of qualifications in the region, to support harmonization across countries. Policies such as the Framework for Recognition and Equivalence of Certificates in the Ecowas Region and the Ecowas Benchmarks for the Harmonisation of University Education are being developed.

East Africa. East Africa has a regional framework for higher education qualifications, which was adopted in 2015, but little information is available about how it is actually being used. The overall coordination for the higher education section of the framework rests with the Inter-University Council for East Africa (AU, 2020).

²⁵ The information in this annex is largely derived from AU (2020), except where otherwise indicated.

²⁶ The 15 Ecowas members are Benin, Burkina Faso, Cabo Verde, Cote d’Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

► Appendix C. Lessons learned from AfDB TVET projects: Country fiches

United Republic of Tanzania: Support to Technical Vocational Education and Training and Teacher Education²⁷

The project was designed within the context of the human capital development priorities of the United Republic of Tanzania and in support of the development of vocational and technical skills and teacher training in the country in the key industrial sectors, such as oil and gas. The objective of the project was to improve equitable access, quality and relevance of skills training and teacher training in mathematics and science, leading to job creation at technical levels, self-employment and effective teaching. The project details are summarized below.

Project amount: UA 34 million	
Project dates: 25/11/2014 to 31/12/2019	
Project description and background	
Project components	<p>To achieve the objectives outlined above, the project had three components:</p> <ol style="list-style-type: none"> Component 1: Increasing access and improving the quality and equity of TVET, with two subcomponents <ol style="list-style-type: none"> support to vocational education and training (VET), and support to technical education and training (TET). Component 2: Capacity building for teacher education in science and mathematics. Component 3: Project management and coordination. <p>The project provided for enhancement of enrolment in TVET through expansion of the number of training centres and improvement of facilities in existing training institutions, while also supporting improved equity in enrolment with a focus on attaining gender parity. Additionally, the project had the target of providing regional facilities in hard-to-reach rural areas, where access to quality TVET was limited. The project also comprised activities aimed at SME development to enable at least 200 staff from SMEs to improve their skills, allowing them to participate in the oil and gas industries (in view of the emerging oil sector in the United Republic of Tanzania), and this provided a further business case and justification for the project.</p>
Key stakeholders	Key stakeholders included Regional Vocational Education and Training Authorities, civil society, multinational oil companies, Government departments and the private sector, all of whom were consulted in the design of the project.
Key achievements/ results	<p><i>Business environment:</i></p> <ol style="list-style-type: none"> Deepen reforms to promote transformation <p><i>Skills development:</i></p> <ol style="list-style-type: none"> Selective investments in post-secondary technical skills linked to growth sectors Skills for improving earnings and livelihoods in low-productivity sectors

²⁷ See <https://projectsportal.afdb.org/dataportal/VProject/show/P-TZ-IAD-001> for further details.

Project amount: UA 34 million	
Project dates: 25/11/2014 to 31/12/2019	
Project description and background	
Key achievements/ results	<p>At the project's completion date, the following results had been achieved:</p> <ul style="list-style-type: none"> • The establishment of Regional Vocational Training and Service Centres (RVTSCs) in four regions – as at 31 December 2019, no centre had been established as construction had not been completed. The construction contracts were at various levels of completion: Njombe 6.5 per cent (however, the contract was cancelled), Geita 35 per cent, Rukwa 45 per cent, while at Simiyu no contract had yet been signed. • The construction of two dormitories at Morogoro Vocational Teachers Training College (MVTTC), intended to improve capacity for female teacher trainees' enrolment – the facilities were about 49 per cent complete. The multistorey laboratory complex at the ATC training center was 51 per cent complete, while contracts for the six teacher training colleges were less than 6 per cent complete. • Provision of tools and equipment to Mtwara RVTSC for strengthening the teaching of trades related to the oil and gas sector was fully attained. • Procurement of books and other reference material for capacity building in developing competency-based curriculum activity was completed and the books were distributed to all Vocational Education and Training Authority (VETA) centres. • Tools and simulators for electrical engineering workshops at MVTTC were received and commissioned, with planned activities 100 per cent executed. • Capacity building provided to ATC was carried out and seven teaching staff were enrolled in long-term training. • Supply, installation and commissioning of equipment for civil and irrigation engineering programmes was successfully completed. • Supply of textbooks for ATC was undertaken and the books were delivered and issued to users. • Curricula review and development for TVET was conducted. • The situation analysis for 50 training programmes conducted in competency-based education and training (CBET) was completed. • A total of 25 CBET curricula were reviewed and 25 non-CBET curricula converted to CBET; however, training on the new curricula had not yet been undertaken. <p>Thus, the project attained satisfactory results in terms of the soft components of activities, and the supply of equipment and books, which have improved the situation and quality of TVET and technical education (TE) to some degree. However, there were major implementation challenges with regard to improvements to physical space through civil works as none of the institutional facilities that were to be established, improved or expanded have yet been provided as intended in the project design.</p>
Observations	<ol style="list-style-type: none"> 1. Weak project management contributed to the low utilization and disbursement rate of ADF funds and the poor allocation of Government funding. 2. Due to challenges relating to implementation management, a number of objectives have not been fully realized. 3. Problems with procurement processing, weak supervision of civil works by consultants and the PCU, and delays in availability of counterpart funds meant that a significant part of the project activities could not start on time. 4. Interim monitoring reports show that weak participation by stakeholders such as local government administration, local communities, and consultants and contractors was evident, and this affected delivery of the civil works, possibly caused by delays in implementation. 5. The project team selection was not well coordinated and the team therefore lacked cohesion, mainly as result of personnel not being assigned clearly defined roles for the various activities, and also because of constant changes among the incumbent officers in various roles. Weak teamwork led to low attainment of the project objectives.

The key lessons learned are enumerated below.

1. Achieving consistency of the project objectives with the development priorities of the country is vital: Clear alignment of project objectives with the development priorities of the country is key to successful attainment of expected project results. During the implementation of this project, the country's priorities seem to have changed and there was therefore a lack of Government commitment to implementation, which could explain the difficulty in accessing Government funding.
2. Selection of an effective project management team is critical for attainment of results: The implementation team in this project was disjointed, with a large number of centres for decision-making and no effective coordination. The PCU at the Ministry of Education, Science and Technology had no dedicated leadership and did not always have the necessary skills, as evidenced by the weak project supervision and reporting. Staff turnover rates were high, leaving major gaps in the continuity of management activities.
3. Spreading out project activities over a large number of implementation centres presented challenges: The wide spread of project implementation over a large number of centres meant that coordination of requests and actual delivery of implementation of activities was often inadequate. However, a strong PCU could have solidified the management structure.
4. Gender parity was considered to be an important aspect in TVET and TE enrolment during project design: Project implementation, however, failed to prioritize gender aspects in implementation to such an extent that no specific actions to improve the capacities of women are mentioned in the executed activities reports.

Zambia: Skills Development and Entrepreneurship Project Supporting Women and Youth (SDEP-SWY)²⁸

The project goal was to contribute to job creation, promotion of gender equality and poverty reduction in Zambia while supporting, in particular, women and youth through skills development and entrepreneurship. The specific objectives of the project were as follows:

1. to enhance micro-, small and medium-sized enterprises' competitiveness through the development of industrial clusters in the light manufacturing subsector;
2. to strengthen rural smallholder farmer cooperatives and enterprises in the cassava value chain through stimulation of markets for commercialization and finding solutions to supply-side constraints; and
3. to strengthen institutions for the enhancement of economic opportunities.

The achievement of all objectives shall be pursued through the mainstreaming of gender equality at all levels and will contribute to the implementation of the country's Industrialization and Job Creation Strategy.

²⁸ See <https://projectsportal.afdb.org/dataportal/VProject/show/P-ZM-IE0-002> for further details.

Project amount: US\$30 million	
Project dates: 29/03/2016 to 30/12/2021	
Project description and background	
Project components	<ul style="list-style-type: none"> • Component 1 – Industrial cluster development: Includes the monitoring of site mobilization for external works, monitoring consultant supervision of industrial yards, operationalizing industrial yards and connecting them to the national grid as well as facilitating the installation of pre-paid meters in all industrial yards. • Component 2 – Cassava value development: Includes the recruitment and training of smallholder farmers, the propagation of cassava plantlets, monitoring the construction of warehouses and bulking centres, conducting demand surveys and feasibility studies for cassava blending as well as mechanical and electrical (M&E) works. • Component 3 – Institutional support and project management: Includes facilitating pre-finance training for industrial yards, facilitating training and certification of business development services providers by TEVETA and other project management activities (procurement, financial management, etc.).
Key stakeholders	Key stakeholders included Regional Vocational Education and Training Authorities, civil society, multinational oil companies, Government departments and the private sector, all of whom were consulted in the design of the project.
Key achievements/ results	<ul style="list-style-type: none"> • Component 1: facilitating construction of eight industrial yards – Chipata, Ndola, Kafue, Kasama, Kitwe, Mansa, Mongu and Solwezi – US\$20 million allocated. <ul style="list-style-type: none"> - Chipata, Kasama and Mongu industrial yards have been completed and handed over to the Commission - Ndola and Solwezi industrial yards are about 98 per cent complete with electrical connectivity through the substations the only outstanding item - Kitwe industrial yard is over 95 per cent complete - Kafue and Mansa industrial yards are more than 65 per cent complete. • Component 2: providing support for the cassava commercialization initiative – US\$6 million allocated. <ol style="list-style-type: none"> 1. Through this initiative, 12,000 smallholder farmers have been targeted to build their capacity to improve cassava productivity from the current yield of 7 tons per hectare to 25 tons per hectare. 2. The project also provided capacity-building support to cassava processors, such as Premiercon Starch Company in Kalumbila, which has set up a huge processing plant with a capacity of 28,000 Megatonnes of starch per annum from cassava when producing at full capacity. • Component 3: Project management support and project management– US\$4 million allocated.
Observations	<ol style="list-style-type: none"> 1. Weak project management contributed to the low utilization and disbursement rate of ADF funds and the poor allocation of Government funding. 2. Due to challenges relating to implementation management, a number of objectives have not been fully realized. 3. Problems with procurement processing, weak supervision of civil works by consultants and the PCU, and delays in availability of counterpart funds meant that a significant part of the project activities could not start on time. 4. Interim monitoring reports show that weak participation by stakeholders such as local government administration, local communities, and consultants and contractors was evident, and this affected delivery of the civil works, possibly caused by delays in implementation. 5. The project team selection was not well coordinated and the team therefore lacked cohesion, mainly as result of personnel not being assigned clearly defined roles for the various activities, and also because of constant changes among the incumbent officers in various roles. Weak teamwork led to low attainment of the project objectives.

Ghana: Development of Skills for Industry Project (DSIP)²⁹

The project was designed to reinforce the Government of Ghana's efforts to reform the TVET sub-sector and support the development of high-quality mid-level technical and vocational skills needed in the Ghanaian economy.

Project amount: UA 77.7 million	
Project dates: 07/11/2012 to 31/12/2019	
Project description and background	
Project components	<ul style="list-style-type: none"> • Component 1 – Expanding equitable access to TVET: By upgrading/improving 13 public technical institutions in 38 districts, across ten regions in Ghana, expanding physical infrastructure in the form of classrooms, workshops, administration and ICT blocks, dormitories and teachers' bungalows. • Component 2 – Building human and institutional capacity: To improve the relevance, equity and quality of TVET delivery by procuring and installing equipment in workshops, training instructors in Competency-Based Training (CBT), and developing, printing and disseminating CBT manuals to all the targeted TVET institutions for improved CBT delivery. • Component 3 – Improving the quality of TVET management: Through training of institutional managers and some staff of the Council for Technical and Vocational Education and Training (COTVET). • Component 4 – Programme management.
Key stakeholders	Key stakeholders included the Ministry of Education, COTVET, technical institutes and the College of Technology, Kumasi (COLTEK).
Key achievements/ results	<ul style="list-style-type: none"> • Component 1 – Expanding equitable access to TVET: <ul style="list-style-type: none"> - The bursary scheme benefitted 2,010 students (40.7 per cent of whom were female) from two Technical Universities and ten Technical Institutes to increase participation rates from disadvantaged groups. - 2,500 apprentices (54 per cent of whom were female) were also awarded bursaries under the project with tools provided for the apprenticeship programme. - Through teacher training and civil works, 13 public institutions improved their teaching and learning environment. Facilities, including classroom blocks, administration and ICT blocks, workshops, teachers' bungalows and student dormitories, were completed and handed over to 12 institutions. Furniture, workshop equipment, ICT tools and CBT manuals were provided. - The Role Model Programme, which aired on radio talk shows to an audience of thousands, raised awareness of TVET education for pupils (both girls and boys). Gender targets in the capacity-building programmes were largely met, in accordance with the results-based log frame. • Component 2 – Building human and institutional capacity: <ul style="list-style-type: none"> - The project trained 149 TVET instructors (20 per cent of whom were female). - Training for 800 master craftspersons was provided in 38 districts to support the traditional apprentice programme. - A management course for 50 TVET managers, 20 Master's degree training courses in CBT and five PhD programmes for COLTEK staff were delivered. - A costed TVET strategic plan was prepared. - COTVET staff were trained in selected areas of TVET policy, planning, advocacy, budgeting and curriculum review. Currently, COTVET has 41 well-trained staff in post, comprising 21 incumbent staff and 20 new staff, recruited in 2017.

²⁹ See <https://projectsportal.afdb.org/dataportal/VProject/show/P-GH-IAE-001> for further details.

Project amount: UA 77.7 million

Project dates: 07/11/2012 to 31/12/2019

Project description and background

**Key achievements/
results**

- Component 3 – Improving the quality and relevance of TVET:
 - Production Units and Students’ Entrepreneurship Business Models were successfully established in each of the ten Technical Institutes to develop and nurture students’ entrepreneurial and business skills.
 - CBT curriculum was developed in three trade areas: mechanical engineering craft practice; welding and fabrication; and electronics. CBT manuals were prepared and printed for distribution.
 - One tracer study was prepared/conducted for both formal and informal sectors in 2018 and a tracer study manual was produced for COTVET.
 - Additional goods were procured for fashion/cosmetology, ICT tools and equipment and printing of CBT and guidance and counselling manuals
- Component 4 – Project management: Recruitment of technical assistance was carried out to help in the areas of project coordination, procurement, financial management, civil works and quantity surveying, civil engineering and architecture, and M&E. Vehicles, office equipment and support for the auditing of project accounts were provided.

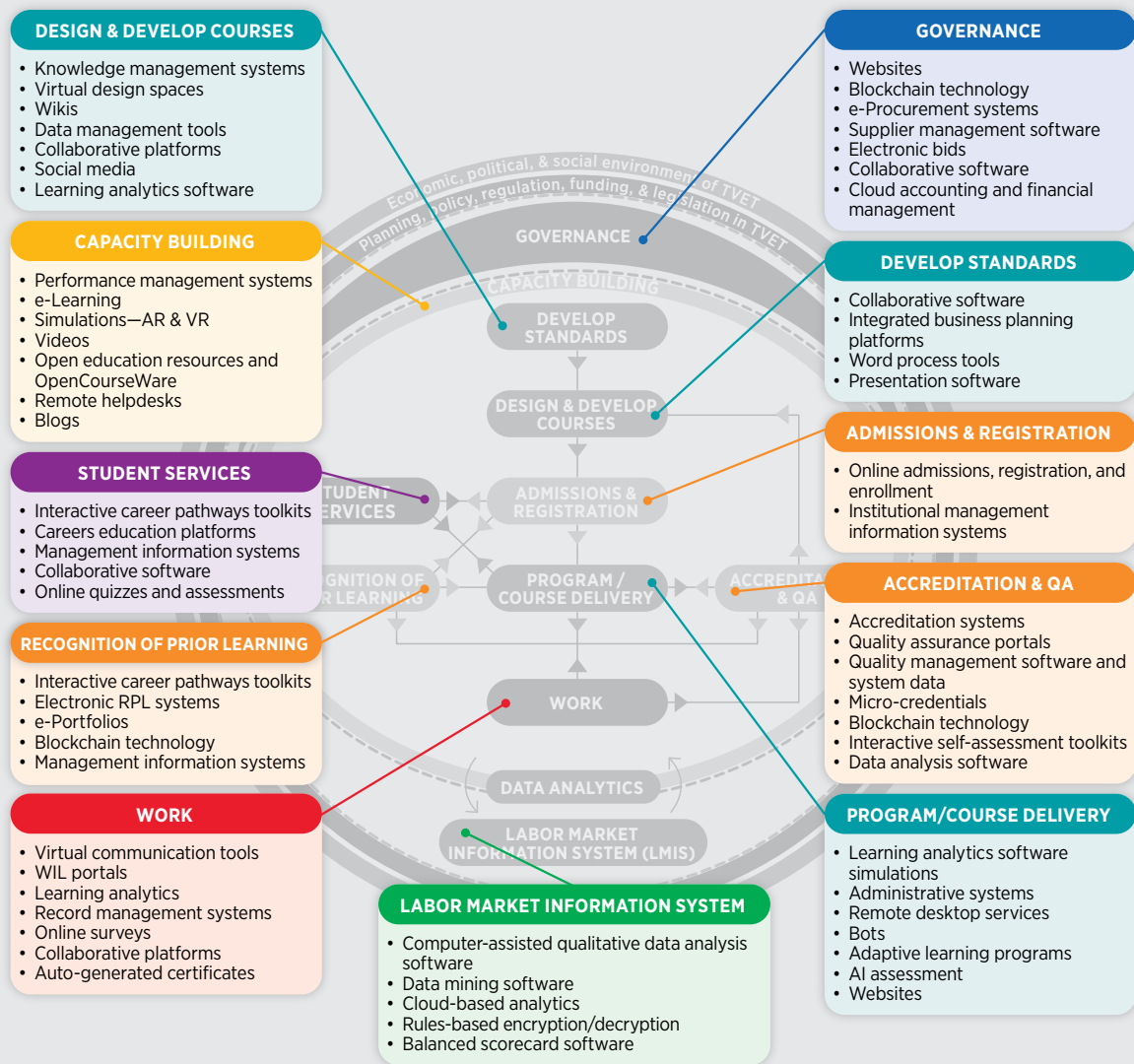
Project performance was not satisfactory as only three out of nine indicators were achieved. Infrastructure investments lagged behind significantly due to the non-release of Government counterpart funds and difficulties in obtaining tax exemptions for goods at the ports delayed the delivery dates for goods, resulting in the project being extended until December 2019, when all civil works were completed. Female enrolment in STEM subjects will experience positive changes in the future as a result of the sensitization campaign on girls’ enrolment in STEM through the Role Model Programme and the Government’s Free Senior High School/TVET policy. Currently, enrolment figures in technical institutes show increases with improved pass rates.

► Key lessons learned are enumerated below.

1. **Equal opportunity for females to access TVET-related courses with an emphasis on science and technology areas:** Creating equal access for females in TVET education requires specific actions to improve their capacity for engagement, such as the Role Model Programme and bursary support. The Role Model Programme encouraged female participation, especially in male-dominated trades, such as electronics, vehicle paintwork repair and welding and fabrication. These actions are to be followed up to enhance specialization in order to correct the gender equality issues in access to the labour market.
2. **Effectiveness of the PSU set up with the support of the Ministry of Education and COTVET:** Setting up a PSU, with support from COTVET and the Ministry of Education, helped to involve all stakeholders and to expedite decision making, enhancing direct monitoring of the project performance. Strong ownership and leadership of the project by the Ministry of Education and COTVET was important in coordinating delivery of the project to the 13 beneficiary institutions and other stakeholders, notably master craftspersons and apprentices.
3. **Delays in counterpart funds releases to the project:** Delays in the release of Government counterpart funds to the project, notably to the civil works contractors, resulted in extended contract periods with attendant complaints received from contractors and the supervision consultants who oversaw the works.
4. **Securing tax exemptions for project deliverables and the effect on timely project completion:** Delays in securing tax exemptions for project activities on project commencement contributed to extending the project implementation period, thus adversely affecting the timely attainment of project deliverables.
5. **Response of project to requests:** The project was noted to have been responsive to the Government of Ghana's request to support activities that were directly related to the objectives of the project but had not been considered at the project design stage. Equipping the centre for CBT at COLTEK and providing support to roll out capacity enhancement for the National TVET qualifications framework are examples of this responsiveness.
6. **Readiness for execution:** Having good-quality technical studies in place at commencement and during the project implementation stage ensured a smooth take-off for the civil works at the beneficiary institutions and allowed the PSU team to use a performance-based contract.

► Appendix D. Potential deployment of educational technology in TVET systems

Figure D.1 Potential for the application of education technology in TVET systems



Source: World Bank (2021).

