



Country Profile: Green Skills and TVET in Kenya

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Introduction

Kenya faces a severe youth unemployment crisis, with the Federation of Kenya Employers (FKF) highlighting that youth aged 15–34 make up about 35 per cent of Kenya's population, with an unemployment rate of around 67 per cent, which is five times the national average. FKF further highlight that over one million young people enter into the labour market annually without skills aligned to labour market demand.¹ This scenario results in a critical need for access to quality TVET to help address these challenges. The Kenyan

1. For example, see <https://www.fke-kenya.org/policy-issues/youth-employment>.

TVETA accredits over 1,700 TVET Providers: 1,156 public and 88 private sector vocational training centres; 225 public and 885 private technical vocational training centres; 11 polytechnics; and 1 Kenya School of TVET that leads on sector capacity building through training of trainer programmes and integrating international best practice through participating in global networks such as World Skills.²

TVET is delivered between Level 3 (National Vocational Certificate 1) and Level 6 (Higher National Diploma) on the Kenyan General and Further Education and Training Framework (KNQF) as described in Figure 1.

2. For more information, please see <https://www.kstvet.ac.ke/>.

Figure 1. Kenyan general and further education and training framework

KNQF Level	General and Further Education and Training Framework			
10	Doctorate degree			
9	Master's degree			
8	Post-Graduate Degree	Professional Bachelor's Degree		Professional Master Craft Person
7	Bachelor's Degree			Master Craft Person I or Management Professional
6	National Diploma			Mast Craft Person II or Professional Diploma
5	Craft Certificate, National Certificate, National Vocational Certificate IV			Professional Certificate or Master Craft Person III
4	National Vocational Certificate III/Artisan Certificate			National Skills Certificate – I
3	National Vocational Certificate II			National Skills Certificate – II
2	Secondary Certificate		National Vocational Certificate I	National Skills Certificate – III
1	Primary Certificate			Basic Skills/Skills for life

TVET policies

- **TVET Act #29 (2013)** is the pivotal legislation for Kenya's TVET system. It sets out guidelines for TVET implementation through the development of a dynamic and responsive curricula, enhanced TVET institution and industry collaboration, resources and technology, and the establishment of TVETA. TVETA assigned responsibility for registration and quality assurance, curriculum development processes.
- **Technical and Vocational Education and Training Authority (TVETA) Strategic Plan 2023–27** was launched in 2023. The TVETA strategic plan utilises sector analysis to develop priorities linked to improved TVET quality and relevance, enhanced access, equity and inclusivity, strengthened governance and management, sustainable funding and financing, and technology integration. The strategy reinforces TVETA's quality assurance role.³
- **The Industrial Training Amendment Act (2022)** is an amendment to the existing Industrial Training Act that strengthens TVET by making it more responsive to the needs of the economy. The act introduces new funding mechanisms, encourages greater industry stakeholder engagement in the development and implementation of programmes, and aligns with national and international quality assurance standards (UNESCO-UNEVOC, 2025b).
- **National TVET Standards (2020)** were developed by TVETA through research on international best practice and local skills needs. There is a focus on TVET quality and relevance and benchmarking Kenya's standards to developing and developed countries to align with global practices. This includes a focus on global skills benchmarking (UNESCO-UNEVOC, 2025b).
- **TVET Standard on Open and Distance E-Learning (ODEL) (2020)** was developed as part of the UNESCO-delivered BEAR II project⁴ and sets out requirements and guidelines for the implementation of ODeL to ensure the quality comparability of TVET CBET programmes offered through ODeL and face-to-face delivery (UNESCO-UNEVOC, 2025b).
- **TVETA Strategic Plan (2019–23)** reinforces and renews TVETA's mandate and functions in developing a modern and labour market responsive TVET system building on the TVETA Act (2013) mandate.

3. For more information, please see <https://www.tveta.go.ke/>.

4. For more information, please see <https://www.unesco.org/en/skills-work-life/bear-project/phases1-2>.

Governance and stakeholders

The **Ministry of Education, Science, and Technology** is responsible for all education sector governance (from preprimary to university), including TVET. TVET is overseen by the Ministry of Education, Science, and Technology's **State Department for Technical Vocational Education and Training**. Other ministries with TVET responsibilities include the Ministry of Public Service, Youth and Gender Affairs and the Ministry of Labour and Human Resource through the State Department for Labour and Skills Development (UNESCO-UNEVOC, 2025b).

TVETA, established by the TVET Act (2013), this is an agency within the Department of Vocational and Technical Training. TVETA has responsibility for TVET curriculum development, assessment and certification, and overseeing registered TVET Providers. Key services provided by TVETA are accreditation, standards development with private sector networks and the Ministry of Labour, outreach services (supporting TVET institutional capacity), and compliance enforcement, including institutional quality audits.⁵

Green skills policies

The National Strategy on Green Skills and Jobs is currently being developed/refined by the State Department of Labour and Skills Development, in partnership with the ILO PROSPECTS programme⁶ and GIZ, supported by the Ministry of Foreign Affairs of the Netherlands. The strategy aims to align the Kenyan workforce with the transition to a low-carbon, resource-efficient, and climate-resilient economy and develop enhanced education and employment opportunities that align with green economic priorities and green jobs. This plan is crucial for achieving Kenya's Nationally Determined Contribution of reducing greenhouse gas emissions by 32 per cent by 2030. The strategy has six key pillars (ILO, 2025):

1. Green governance: strengthen the governance framework for the delivery of green skills and jobs.
2. Green skills: develop green skills that are aligned to the needs of industry.
3. Green research and technology: enhance green research and technology transfer to drive innovation in green enterprises.

5. For more information, please see <https://www.tveta.go.ke/>.

6. For more information, please see <https://www.ilo.org/projects-and-partnerships/projects/partnership-improving-prospects-forcibly-displaced-persons-and-host>.

4. Green jobs: facilitate the identification, creation, and growth of green enterprises and jobs creating sustainable employment opportunities.
5. Green labour market: enhance labour market performance within the green economy.
6. Green finance: establish a sustainable financing mechanism for the delivery of green skills and jobs.

The strategy is being delivered in collaboration with industry partners and promotes advocacy activities promoting a green transition, ensuring that marginalised groups and those reliant on carbon-intensive industries are not unfairly disadvantaged. The strategy is committed to youth empowerment and utilising the green transition as a medium to address high youth unemployment rates. This includes aligning with UNEP's Green Jobs for Youth Pact promoting access to global green jobs and skills.⁷

Examples of good practice

PropelA project

This is being delivered by Swisscontact and funded by the Hilti Foundation. The project builds industry-demanded skills in the Kenyan construction sector through piloting training in the electrical and plumbing trades. The project introduces dual apprenticeship programmes in partnership with 35 Nairobi-based companies. PropelA is modelled on the dual apprenticeship curricula in Switzerland but is localised for the Kenyan labour market. The project has been designed and delivered in collaboration with government of Kenya agencies, including the National Industrial Training Authority (NITA), and a local TVET Provider, Don Bosco Boys Technical Training Institute. The participating employers pay the apprentices a stipend, NITA provides government of Kenya certification, and Don Bosco delivers the theoretical part of the programme.

Launched in 2022, PropelA has provided dual apprenticeship opportunities for 300 trainees (18–24 years) through a two-year apprenticeship contract, with 76 graduates awarded with an employer/NITA certificate (KNQF L5) and an 80 per cent progression rate to a full-time contract. The theoretical and practical elements of the programme are developed in collaboration with employers, with reference to Swiss apprenticeship programmes,

7. The Green Jobs for Youth Pact is an interagency partnership between the ILO, UNEP, and UNICEF, with and for youth, bringing together governments, businesses, and educational institutions through three tracks: employment creation & entrepreneurship, environmental education & skills for green jobs, and empowerment & youth engagement. For more information, please see <https://www.unep.org/topics/youth-education-and-environment/green-jobs-youth>.

in the target trade areas. The apprenticeship has a strong focus on developing soft skills, highlighted as a priority by employers, as well as technical skills. From 2026 to 2029, the project is entering Phase II, which will see the introduction of new trades and sectors, including Integrated Facilities Management, which will include green elements linked to solar installation and retrofitting. Due to the focus on developing a cohort of domestic employers, the project does not currently have an international migration track to Switzerland.⁸

East Africa Skills for Transformation and Regional Integration Project (EASTRIP) (2019–26)

This is a World Bank-funded project enhancing TVET quality, access, and relevance in East Africa (Ethiopia, Kenya, and Tanzania). EASTRIP's Kenyan delivery partners are the State Department of Vocational and Technical Training, Coast National Polytechnic, Institute of Highways and Building Technology, Meru National Polytechnic, KenGen GTC, and Kisumu National Polytechnic. KenGen Geothermal Institute has been equipped to deliver green training programmes through geothermal and solar energy. The project has developed a regional TVET qualification framework (236 qualifications), and harmonised occupational standards (44) in priority sectors/occupations, which have been referenced to global frameworks (such as in ASEAN, South Africa, and the EU) (Gebregziabher, 2021).

GIZ implemented Youth Employment and Vocational Training II project (2023–26)

This project is jointly funded by Germany and Finland, introducing inclusive and labour market-relevant programmes through targets of institutionalising dual TVET in 60 TVET Providers and 800 companies. The project enhances TVET sector capacity through the introduction of dual TVET concepts into TVET trainer programmes delivered by the Kenya School of TVET. By the end of 2026, the project aims to facilitate the enrolment of 6,000 young (15–34) Kenyans, particularly school graduates with potential for skilled worker-level training and employment, in high-quality dual TVET courses and strengthen the capacity of 1,800 TVET personnel. It offers training in 15 labour market-relevant occupations, including a focus on emerging green jobs in the construction sector.⁹

A meeting with GIZ Kenya highlighted how the project promotes peer exchanges for its partner institutions with German stakeholders, including industry, and technical support from seven Finnish Universities of

8. For more information, please see <https://www.swisscontact.org/en/projects/improving-skills-for-plumbers-and-electricians-through-dual-apprenticeship-training-propela>.

9. For more information, please see <https://www.opf.fi/sites/default/files/documents/Youth%20Employment%20and%20TVET%20in%20Kenya%20-%20Project%20description.pdf>.

Applied Science.¹⁰ Global employers are afforded an opportunity to input into curriculum development activities, with the project's Industrial Mechatronics Diploma curriculum being designed in consultation with domestic and international employers. A pilot programme has been designed with 16 learners on the mechatronics programme receiving both a Kenyan CDACC certificate and a Level C German Chamber of Foreign Trade Certificate awarded by the German Chamber of Commerce in Kenya. The German qualification includes additional language and culture elements, with German employer input on the curriculum (theoretical and practical) provided by Kronos AG, a German packaging and bottling manufacturer. This has allowed 12 learners to have employment and training opportunities in Germany.

Kenya Blue Economy Skills Training Program (KBEST)

KBEST is funded by Global Affairs Canada and delivered by Colleges and Institutes Canada is a 7-year project with a target to reach 5,000 young Kenyan beneficiaries. The programme develops skills to grow Kenya's global blue economy capacity.¹¹ KBEST connects Canadian colleges with Kenyan TVET Providers from the coast of the Indian Ocean and Lake Victoria. The partnerships support institutional capacity building to deliver training aligned with international standards and in response to skills demands for the blue economy, creating positive economic, employment, and environmental outcomes. It utilises private sector partnerships to identify skills gaps, provide WBL opportunities, and define blue economy occupational standards. The project also partners with local women's rights organisations and the Equity Group Foundation¹² to promote positive GESI outcomes.¹³

Alongside the development of programmes, there are also interesting examples of strategic memoranda of understanding (MoU) between countries of origin and destination being utilised to establish joint TVET programmes. See Box 1 for one example.

Box 1. Establishing Joint TVET programmes with TAFE to capacity build Kenyan TVET

A group of Australian TVET Providers, led by the Signet Institute of Australia, met with Kenyan TVET Providers and policymakers to discuss the potential to deliver Australian accredited TVET programmes (TAFE) in Kenya. This has led to an MoU to explore the opportunity to develop joint programmes in key sectors aligned with industry demand in Australia. Although the initial focus is on skills development, it is intended that the students who complete the Australian-aligned curriculum in Kenya may benefit from favourable consideration visa applications, including potential flexibility in English language proficiency requirements such as IELTS. Identified development interventions also embed strong GESI metrics and outcomes that provide the foundation for inclusive access to green skills and employment opportunities.

Investment-ready TVET Providers

KenGen Geothermal Training Centre (Kenya)

GTC is part of KenGen, East Africa's leading electric power generating company. GTC's vision is to be a globally recognised CoE for the development of skills requirements in the energy sector that contributes to the sustainable development of energy resources. The centre has established MoUs with domestic and international partners that allow it to keep up to date with sector advances in practice, research, and technology. Its international activities have included study visits to Germany, New Zealand, the US, Japan, and partner East African countries. GTC conducts energy sector research in collaboration with international higher education partners, including the UN's University-Geothermal Training Programme (UNU-GTP). The centre also partners agencies such as APUA, the World Bank, UNEP, and UNU-GTP.

Programme areas. GTC delivers both bespoke courses, developed subject to demand, and longer KNQF-mapped programmes in areas such as geosciences, basic computer skills, health and safety, management skills, and renewable energy through training in geothermal technology and environmental sciences.

GTC has been selected as the regional TVET CoE in geothermal energy for the EASTRIP programme. It is currently the project's only renewable energy-focused CoE.

10. For more information, please see <https://www.giz.de/en/projects/promotion-youth-employment-and-vocational-training-0>.

11. The Blue Economy is the sustainable use of the ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health. For more information, please see <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>.

12. Equity Group Foundation is a nonprofit implementing foundation set up in 2008 as the social arm of Equity Group Holdings with the aim of transforming the lives and livelihoods of our people socially and economically through modern, inclusive financial services that maximise their opportunities. For more information, please see <https://equitygroupfoundation.com/>.

13. For more information, please see <https://www.collegesinstitutes.ca/programmes/kenya-blue-economy-skills-training/>.

The centre was awarded a USD 10.8 million grant towards upgrading training and accommodation infrastructure.¹⁴

Scale and duration of programmes. The number of learners training on the centre's short courses is subject to demand, with around 200–220 full-time learners on the longer-term programmes.

Governance and links to industry. GTC is part of KenGen, East Africa's leading electric power generating company, but serves both internal and external trainees.

Investment needs. GTC referenced opportunities for ongoing global support for curriculum development, especially in alignment with emerging green jobs, technology, and skills. Although the centre's embedded role in the wider KenGen organisation provides it with access to industry demand, it would welcome access to global best practice in sector training programmes. This includes dialogues with other CoEs on emerging trends and training techniques. GTC identified the value of train the trainer interventions that supported the introduction of "dual professional" behaviours through keeping instructors up to date with sector trends and develops their pedagogic skills. There is an ongoing need for investment to build on the resources and infrastructure platform that has been established through the EASTRIP project. The investment from the World Bank has made a significant difference to GTC's capacity to deliver quality training; however, as they are delivering programmes in a fast-moving sector there remains a continuous need to access modern training equipment, resources, and materials. GTC would also welcome the opportunity for investment to support their international partnerships, including with other energy sector CoEs and mapping of programmes. They



have established curriculum links with East African peers through the EASTRIP project and would like support to grow their network and programmes to wider international providers.

Other potential opportunities

The authors also had an initial meeting with the East Africa Institute of Welding (EAIW) but did not have an opportunity to conduct a site visit. EAIW, which is viewed as a national CoE, trains welders for Kenya's Oil and Gas sector. EAIW has a partnership with TALO, a UK Oil and Gas company, and delivers training in alignment with globally certified standards. This includes working in collaboration with Nexus Quality, the African partner for Quality Control Co, which is an authorised examination centre for the American Society for Nondestructive Testing, American Welding Society, and the Society for Protective Coatings (SSPC) training and certification programmes. This partnership ensures that EAIW delivers globally accredited training that meets national and international industry requirements. EAIW is keen to explore opportunities to deliver training for international mobility programmes, including through developing current talks with IOM.

14. For more information, please see <https://www.kengen.co.ke/index.php/geothermal-center-of-excellence.html>.